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1                    IN THE UNITED STATES DISTRICT COURT
                    FOR THE EASTERN DISTRICT OF VIRGINIA
2                            Norfolk Division

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                                           )
5       I/P ENGINE, INC.,                  )
                                           )
6              Plaintiff                   )
                                           )
7       v.                                 )
                                           )   CIVIL ACTION NO.
8       AOL, INC., GOOGLE INC., IAC        )   2:11cv512
        SEARCH & MEDIA, INC., GANNETT      )
9       CO., INC., and TARGET              )
        CORPORATION,                       )
10                                         )
               Defendants.                 )
11   - - - - - - - - - - - - - - - - - - -

12

                      TRANSCRIPT OF TRIAL PROCEEDINGS
13

                                 DAY 5
14

                          (Afternoon session)
15

                           Norfolk, Virginia
16

                           October 22, 2012
17

18

     BEFORE:   THE HONORABLE RAYMOND A. JACKSON, and a jury
19             United States District Judge

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JODY A. STEWART, Official Court Reporter

661

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 1   APPEARANCES:

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JODY A. STEWART, Official Court Reporter

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17   NO.             DESCRIPTION                      PAGE

18    NONE

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JODY A. STEWART, Official Court Reporter

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 1                         AFTERNOON SESSION

 2              (Hearing commenced at 2:23 p.m.)

 3              (Jury in at 2:23 p.m.)

 4              THE COURT:  You may be seated.  Record will reflect

 5    that all jurors are now present in the courtroom.  Does

 6    counsel agree?

 7              MR. CIMINO:  Agreed.

 8              MR. NELSON:  Agreed.

 9              THE COURT:  You may resume your cross-examination,

10    Mr. Nelson.

11              MR. NELSON:  Thank you, Your Honor.

12                   CROSS-EXAMINATION (Cont'd)

13    BY MR. NELSON:

14    Q.  Good afternoon.

15    A.  Good afternoon.

16    Q.  All right.  You recall during your direct testimony that

17    you played part of a video from a gentleman named Hal Varian?

18    A.  Yes, I do.

19    Q.  Okay.  And I think you ended that video with a pie chart.

20    Do you recall that?

21    A.  The video ended with a pie chart, yes, I do recall that.

22    Q.  Right.  And you used that to try to show that Google used

23    historical click through rate in serving ads, right?

24    A.  I give that as one of the examples but I also talked

25    about it when I was in the internal document that was used
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Frieder, O. - Cross cont'd   664

1   there.

2   Q. Okay. And you relied on that video on forming your

3   opinions in this case, correct?

4   A. I relied on a lot of the information. Obviously, the

5   more evidence I have, the better my assessment is, and I had

6   a lot. I relied on the source code. I relied on the

7   depositions. I relied on the internal documents. And I also

8   relied on the external information just to confirm it, yes,

9   that's correct.

10   Q. Understood. My only question is one of the things was

11   that video, right?

12   A. The one of the things that I relied on. I rely on the

13   body of evidence. There is not one particular. That is my

14   aha moment. That is the only thing I relied on.

15   Q. Yeah, that is not what I was asking. I'm just asking you

16   whether that was something that you relied on in forming your

17   opinions?

18   A. It was one of the many things, yes.

19   Q. Okay. You've seen that entire video, haven't you?

20   A. I've seen the entire video, yes.

21   Q. And you're aware, then, what you showed to the jury was

22   just a part of that video, aren't you?

23   A. If I remember correctly, yes.

24   Q. But you didn't show the entire video, correct?

25   A. I'm not sure that I did, no.

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   665

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 1   Q.   Okay.  So let's pick it up where you left off.
 2   A.   Okay.
 3   Q.   So you recall this is where we stopped, right?
 4   A.   It depends.  Potentially.
 5   Q.   Okay.
 6   A.   If you show it from where I started, I'll know exactly
 7   where it, yes.
 8   Q.   Okay.  You want to go ahead and do that?  Do you have
 9   that from the start?
10        "MR. VARIAN:  So what is quality score?  So there are
11   three components of the quality score, and the biggest one by
12   far is click through rate.  By allowing users to vote with
13   their clicks, we have millions of people who are helping us
14   decide which ads are best for each search query.
15        "Google's philosophy is always rely on user feedback
16   as a key drive decision-making.  So using click through rate
17   and quality score is our way of incorporating that feedback
18   into ad serving.
19        "Relevancy is the second largest component of quality
20   score.  Both the relevancy of the keyword to the ads as well
21   as to the user search query, Google determines relevancy by
22   analyzing the language and context of an ad or query in
23   determining how well it relates to keyword.  Google uses
24   relevance to make sure that only useful ads are displayed to
25   users and prevents advertisers from paying their way onto a
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1 search that is unrelated to their product or service.

2   "The third component of quality score is landing page

3 quality. An ad is only useful if the user at the landing

4 page it leads to help them find the information they are

5 looking for. High quality landing page should have relevant,

6 original content, be easily navigable with quick load times

7 and minimum pop-ups or pop-unders, and be transparent about

8 the nature of your business, how your site interacts with the

9 visitor's computer, and how you intend to use the visitor's

10 personal information."

11   So does that refresh your recollection that is where

12 you stopped?

13 A.   Yes.

14 Q.   Okay. Let's look at the next part of this video.

15 A.   Okay.

16   "So how does this quality score affect the way the

17 auctions run? What we do is we have a concept of ad rank,

18 and ad rank is going to be the bid of the advertiser times

19 the quality of the ad. So in this particular example, I've

20 got four advertisers that are bidding 4, 3, 2 and 1, and the

21 ads have different quality. In this case is the quality of

22 1, 3, 6 and 8.

23   "So to determine the ad rank, we just multiply those

24 two numbers together. And then what we do is we rank the ads

25 by the ad rank to the best performing ad here, is 12, second

Frieder, O. - Cross cont'd   667

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 1   best is this ad, 9, third best is this ad, and up here the
 2   advertiser is bidding 4 at such a low quality that it doesn't
 3   get shown at all."
 4   Q.  Okay.  You reviewed that before, correct?
 5   A.  Yes.
 6   Q.  Right.  And so what we just saw there is in the next part
 7   you didn't show, Mr. Varian is talking about a quality score
 8   that is a number between 1 and 10, correct?
 9   A.  He was using this as an illustrative example.
10   Q.  He was talking about quality score the number between 1
11   and 10, correct?
12   A.  Correct.
13   Q.  Okay.  And quality score is a number between 1 and 10, is
14   something you testified earlier, you're not aware of that
15   ever being used in serving ads, correct?
16   A.  That is correct, but he's using it as an illustrative
17   example.
18   Q.  So let's talk about it.
19   A.  He did talk about eligibility there in the first part of
20   it, which support the ones he wanted.
21   Q.  That is fine.  So, again, quality score between 1 and 10,
22   that is what he was talking about, right?
23   A.  It was in the illustrative example he was showing, yes.
24   Q.  Quality score between 1 and 10 is not use of serve ads,
25   correct?
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Frieder, O. - Cross cont'd   668

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 1   A.  Was not the one that was using to serve ads, no.

 2   Q.  Now, let's go to your PDX-65.  Now, you recall this?  You

 3   went -- kind of walked through Figure 9 of the patent and

 4   used this search example that of the term "grill," right?

 5   A.  I used that as a search example of a grill, yes, that's

 6   correct.

 7   Q.  Now, just so we're clear, if I went and looked at Figure

 8   9 of the patent, I wouldn't see a box with search and grill

 9   there, right?

10   A.  No.  I made this to be an illustrative usage to explain

11   how Figure 9 works.

12   Q.  Okay.  And then if we go forward to PDX-66, you are still

13   using search results that you are trying to show this is a

14   search term "grill," right?

15   A.  You went from initialization to the end.

16   Q.  Yes.  These are your slides.  I just went from -- I

17   didn't skip any slides, I went just 65 to 66.

18   A.  Yes, but you basically skipped the whole animation,

19   correct.

20   Q.  I don't have it, so I can't show it to you.  But the --

21   all I'm talking about here is that you're showing the example

22   where the search put in was correct, right?

23   A.  I was showing the example that the search put in was

24   correct.

25   Q.  And as we go forward, 67, you don't talk about it; 68,
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   669

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 1   nothing; 69, nothing; 70, nothing; 71 --
 2              MR. CIMINO:  Objection.  You said you don't talk
 3   about it.  I'm not sure what the question was.
 4              MR. NELSON:  I'm going through the slides.
 5              THE COURT:  When he objects, let me rule.  Just
 6   clarify your question.
 7              MR. NELSON:  I'm just trying to show that I'm not
 8   leaving anything out as we get there, that's is all.
 9   BY MR. NELSON:
10   Q.  So 71, go to 72, 73, now 74.  Okay.  So then 74, you
11   ended this discussion by showing what you represented to be a
12   result from a Google page, right?
13   A.  I showed it as a possible result from a Google page, yes.
14   Q.  Right.  But if we look at the top there, that result is
15   not for the search "grill," is it?
16   A.  I was showing an example of what a search page would be,
17   what a result page would be.  That illustration was to
18   illustrate how the patent would work.
19   Q.  Right.  But you agree with me it's a different search
20   term, right?
21   A.  The search term is "stainless steel grill," right.
22   Q.  That is much more specific than the search term "grill,"
23   correct?
24   A.  Sure.
25   Q.  And "grill" is somewhat of an ambiguous term, right?
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Frieder, O. - Cross cont'd   670

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 1   A.  Grill is grill.
 2   Q.  Right.  It could be -- it could be a barbecue grill, it
 3   could be a bar and grill, it would be the front end of a car,
 4   and I think there is even some things that people put on
 5   their teeth that are called a grill, aren't they?
 6   A.  I wasn't aware of the teeth, but I learned something new.
 7   Q.  I recently learned that myself.
 8   A.  Thank you.
 9   Q.  So the -- well, let's just look.  Let's go to PDX-4-12.
10   So here let's look at the search result -- I mean, the search
11   that is put in.
12   A.  Can you enlarge that?
13   Q.  Yeah.
14   A.  Thank you.
15   Q.  So now this is the search term "grill," right?
16   A.  This is the search term "grill," yes.
17   Q.  Right.  So then you see that -- if we go down on the
18   results, we see some grills, cooking grills, we see some bars
19   and grill, right, and if we look over here on the ad side, we
20   see an ad for the front end of a car, correct?
21   A.  Yes.
22   Q.  So you agree that this shows that AdWords can't tell the
23   difference in the meaning between the word "grill," right?
24   A.  No.  I don't agree.  It is, although you basically have a
25   set of items of grill, and you're right, there is different
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   671

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 1   meaning of grills, but they -- there is a set -- a set that

 2   defines what grill is.  It is within a neighborhood.  It

 3   keeps -- basically, you're not talking about New York City.

 4   You're not talking about a good deli over here, which I just

 5   found out about.  You're not talking about anything besides

 6   something that is represented by the word "grill."

 7   Q.  Okay.  But when you went through your example, you didn't

 8   show this one, correct?  You didn't show an actual search

 9   result when the term was "grill," despite your earlier

10   examples, correct?

11   A.  My earlier example is just to illustrate the -- and to

12   explain the patent, how the patent works.  This is a fine

13   example, this is an example of a search of a grill.

14   Q.  Now, let's go back to PDX-116.  We were talking about

15   this one just before lunch.  Now, here on the PDX-116, you

16   highlight some things in green.  And the first one you

17   highlight is the historical click through rate and keyword.

18   You see that?

19   A.  Yes.

20   Q.  Okay.

21   A.  Just one second.  Yes.

22   Q.  Okay.  But you agree that there is nowhere in SmartAds

23   where you can point me to a number that is a keyword's click

24   through rate, right?

25   A.  What each SmartAds does is it basically computes
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   672

1   surrogates for its storage of what it maintains in the

2   clicks. I use this as an example of what could be done with

3   the clicks, and what is done with the clicks.

4   Q. So you were deposed in this case, weren't you?

5   A. Yes.

6   Q. And you have your deposition in front of you?

7   A. Yes.

8   Q. Okay. I'd like you to look at Page 191.

9   A. Well, I imagine I have my deposition in front of me. Is

10 this in here?

11 Q. It should be in there, yes.

12   THE COURT: What tab?

13   MR. NELSON: Right in the front. Tab 1, Your Honor.

14   THE COURT: Thank you.

15   THE WITNESS: Okay.

16 BY MR. NELSON:

17 Q. Page 191, Line 11, can we play that?

18   "QUESTION: But you agree there is nowhere in

19 SmartAds where you could point me to a number that is a

20 keywords click-through rate; right?

21   "ANSWER: I agree that in SmartAds there is a

22 derivation of the feedback data that the odd multiplier they

23 are going through clicks.

24   "QUESTION: But there is nowhere in SmartAds where

25 you could point me to a keywords click-through rate? That --

Frieder, O. - Cross cont'd   673

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 1    that number does not exist in SmartAds, correct?
 2             "ANSWER:  We went through this before.
 3             "QUESTION:  So you agree with me right?
 4             "ANSWER:  So I answered it before, yeah."
 5    BY MR. NELSON:
 6    Q.  So you gave that testimony, right?
 7    A.  It's the same as I said now, yes.
 8    Q.  Well, we'll let the jury decide whether it is the same as
 9    you said now.
10    A.  I stated it, you basically use the surrogates to maintain
11    it, and that is correct.
12    Q.  There is no keywords click-through rate used in SmartAds,
13    correct?
14    A.  True.  That is correct.
15    Q.  Now, if we go back to PDX-116.  You highlight here, you
16    have in content, and you -- one of the things you highlight
17    is keyword.  See that?
18    A.  What are you looking for?
19    Q.  I'm looking at your PDX-116.
20    A.  Yes, I see the word "keyword."
21    Q.  Right.  Now, you agree that keyword is not content,
22    correct?
23    A.  Yes.
24    Q.  Now, let's talk about some other things in this.  You
25    mention the historical click-through rate of a match ad.  Do
```

Frieder, O. - Cross cont'd   674

1   you see that at the top of the collaborative highlighting?

2   A.   Excuse me. I didn't follow. Could you repeat that,

3   please?

4   Q.   Yeah. One of the things that you reference is the

5   click-through rate of the matched ad. Do you see that?

6   A.   Yes.

7   Q.   Now, you talked yesterday about attributes and attribute

8   template. Do you recall that? I guess it was Friday,

9   actually, or the last day you were testifying?

10   A.   I talked on Friday about attribute templates, yes, I did.

11   Q.   Right. And you agree that the attribute templates are

12   what define the actual attributes that are used to figure out

13   the odd multipliers which happened in pCTR, right?

14   A.   Yes, I did.

15   Q.   So if we can simplify this maybe a little bit, these

16   attribute templates would basically be like a series of

17   questions that SmartAds would ask about the current query ad

18   pair, right?

19   A.   It's a set of features that it basically extracts from

20   the query in ad pair.

21   Q.   Right. It is asking questions about what some things

22   might be, some facts might be about the query ad pair, right?

23   A.   It depends on how you conceptualize it, but you can view

24   it.

25   Q.   Okay. So and then the attributes would be like answers

Frieder, O. - Cross cont'd   675

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 1   to these questions, right?
 2   A.   These attributes would be specifics of what you're
 3   looking for.
 4   Q.   Exactly.  So the templates would ask the question and
 5   then the attributes would be returned, right?
 6   A.   The templates would ask the question, and it would be
 7   filled in with the attribute values of the query ad, yes.
 8   Q.   And then those attributes would be used to look up the
 9   appropriate odds multipliers, right?
10   A.   And the values would be converted to a string.  It's a
11   simplification, but converted to a string and that string
12   would be looked up to determine the corresponding odds
13   multiplier.
14   Q.   Okay.  And you agree that those odd multipliers are
15   feedback data, correct?
16   A.   I agree that those odd multipliers are derivation from
17   the feedback data.
18   Q.   So sitting here today, or at least -- let's take it back.
19   Sitting at the time of your deposition, you weren't aware of
20   any attribute templates that show the click-through rate of
21   an ad, correct?
22   A.   Although, there is no -- an attribute template that shows
23   the click-through rate of an ad, there are many attributes
24   that basically use the surrogates to be able to get the
25   information from the ad query pair to be able to represent
```

Frieder, O. - Cross cont'd   676

1 that information.

2   The click-through rate here is a generalization just

3 like -- this is like the jury saw on the witness when -- on

4 the videotape. What you have now is the template, a

5 generalization of that information, the click-through data.

6 Q. Okay. Let's go back to your deposition. The same

7 question was asked, and let's see what answer you gave then.

8 A. Fine.

9   MR. CIMINO: Your Honor, that is improper

10 impeachment. We are going to see what answer he gave. He

11 has to show that the answer is different.

12   THE COURT: Objection sustained. You have to put it

13 in the form of the -- the appropriate form if you are going

14 to impeach his statement, unless you contend that he gave a

15 different statement.

16   MR. NELSON: He did.

17   THE COURT: Well, then let's put it in that phrase

18 and see what you said.

19   MR. NELSON: Okay. 23.

20   THE COURT: Same question.

21   "QUESTION: Sitting here today, are you aware of any

22 attribute templates that show the click-through rate of an

23 ad?

24   "ANSWER: Sitting here today, I'm not aware of any."

25   MR. CIMINO: Your Honor, that is the same answer he

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   677

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 1   just gave.  That is two impeachment clips that weren't used
 2   for impeachment.  I'm not sure how I can object.
 3            THE COURT:  Objection sustained.  He used it to
 4   refer to something else.  He answered that the same,
 5   Mr. Nelson.
 6            MR. NELSON:  Well, he didn't say anything about the
 7   surrogate in his answer, Your Honor.
 8            THE COURT:  Well, he answered the question the same
 9   way.
10   BY MR. NELSON:
11   Q.  Okay.  So you agree with me that there aren't any?
12   A.  Aren't any what?
13   Q.  Attribute templates that show the click-through rate of
14   an ad?
15   A.  I had mentioned that there are surrogates that basically
16   I use for it, but I agree there is not -- there are not a
17   template that represent the click-through rate of an
18   individual ad in an individual query there, yes.
19   Q.  And we talked a lot about quality score, but you agree
20   that it's not correct to say that quality score is based on
21   an advertisement's click-through rate, correct?
22   A.  There is a -- your witnesses that I saw the videotape
23   basically talk about it as a generalization.  As a
24   generalization, I believe they are using the click
25   information.
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Frieder, O. - Cross cont'd   678

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 1   Q.  Okay.  So let's look at 223, your deposition at 223, Line
 2   15 through 24.
 3           "QUESTION:  Okay.  I'm ask -- I'm not asking you
 4   what -- what was said in another document.  I'm asking you as
 5   to your understanding of how the system actually works, sir.
 6   You agree that it is not correct to say that the quality
 7   score is based on an advertisement's click-through rate,
 8   correct?
 9           "ANSWER:  It is not based on an individual
10   advertiser's particular click-through rate, correct."
11   BY MR. NELSON:
12   Q.  Okay.
13   A.  I just said the same thing.
14   Q.  Well --
15           MR. CIMINO:  Your Honor, for completeness, I'd like
16   to have the other question and answer played, and the one
17   right before this, Page 23, Line 6 to 14.
18           THE COURT:  We are going to do this one time and
19   then you have to take it up on cross-examination.
20           MR. CIMINO:  Yes, Your Honor.
21           THE COURT:  All right.  Play it.  What did you ask
22   to be played?
23           MR. CIMINO:  223, Line 6 to 14.  I could read it,
24   Your Honor, if that is easier.
25           THE COURT:  No.  Let him play it.
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   679

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 1              MR. CIMINO:  Okay.

 2              "ANSWER:  ...derivation of clicks.

 3              "QUESTION:  But it is not based on an

 4    advertisement's click-through rate, correct?

 5              "ANSWER:  This is what's cited in your documents.

 6    I'm taking things out of your documents.  My ad -- my use is

 7    the same usage you guys described when you used -- when you

 8    describe your system.  In -- the -- what is the quality score

 9    is based on, among things, the pCTR, which is based on the

10    odds multipliers.

11              "QUESTION:  Okay.  I'm ask -- I'm not asking you

12    what -- what was said in the other document.  I'm asking you

13    as to your understanding of how the system actually works,

14    sir.  You agree that it is not correct to say that the

15    quality score is based on an advertisement's click-through

16    rate, correct?

17              "ANSWER:  It is not based on an individual

18    advertisement's particular click-through rate, correct."

19              THE COURT:  Continue.

20              MR. NELSON:  Okay.  Thank you, Your Honor.

21              THE COURT:  Next time we will save that for

22    cross-examination.

23              MR. CIMINO:  Yes, Your Honor.

24    BY MR. NELSON:

25    Q.  All right.  So let's see if we can get a little bit
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Frieder, O. - Cross cont'd   680

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 1   further.  So go back to PDX-116.  So here you have
 2   highlighted CTR in this document, and you indicate that
 3   that's collaborative, right?
 4   A.  I indicate that the click-through rate is a
 5   representative -- this is your document.  This is what --
 6   this is a historical click-through rate matched -- this is
 7   your document.  I believe the click through is a
 8   representation or derivation from the clicks, yes.
 9   Q.  But for purposes of AdWords, you're not saying the CTR is
10   collaborative data, correct?
11   A.  I am not saying that the CTR, I'm saying the clicks are.
12   And this is a representation thereof of that.
13   Q.  But -- I just want to get your opinion straight.  So for
14   purposes of your opinions, you're not relying on the CTR as
15   collaborative data in AdWords, correct?
16   A.  I'm use -- as I said before, this is your documents.  I'm
17   using the information on -- I have in composite, this is an
18   illustration of it.  It is your document.
19   Q.  Okay.  These are the documents you said you skimmed
20   before your testimony; is that right?
21   A.  Among many, yes.
22   Q.  Now, let's talk about a few other things.  So you agree
23   that SmartAds does not group users according to whether they
24   have similar interests or needs, right?
25   A.  If you have the query, when you have the query, that is
```

Frieder, O. - Cross cont'd   681

1   the similar interest or needs.

2   Q.   Do you know whether SmartAds groups users according to

3   similar interests or needs?

4   A.   If it has the query in it, it does. Otherwise, it does

5   not.

6   Q.   Can we play for your deposition at 93, Line 7 through 12.

7   "QUESTION: Do you know whether SmartAds groups

8   users according to similar interests or needs?

9   "ANSWER: SmartAds groups users according to similar

10   interests or needs?

11   "QUESTION: Correct.

12   "ANSWER: It -- no."

13   BY MR. NELSON:

14   Q.   In fact, you agree that SmartAds does not group users at

15   all, correct?

16   A.   I'm telling you that SmartAds basically stores templates,

17   and the templates basically indicate the query in some of

18   them, and those basically indicate what the interest is but

19   they do not store it.

20   Q.   Do you know whether SmartAds groups users according to

21   similar interests or needs?

22   THE COURT: I think you have asked that question a

23   couple of times. He responded a couple of times.

24   MR. NELSON: Not the way he did in his deposition,

25   Your Honor.

Frieder, O. - Cross cont'd   682

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 1              THE COURT:  Then what you need to do is then you

 2   need to impeach him.  But if he asked it twice, then it's

 3   time to impeach him using his deposition.  But let's not keep

 4   going over it and over it and getting the same answer.

 5              MR. NELSON:  As I understand.  So this is right

 6   after the part that we just saw, 93, begin Line 13 through

 7   94, Line 1.

 8              "QUESTION:  Do you know whether -- well, you agree

 9   it does not, correct?

10              "ANSWER:  What does not?

11              "QUESTION:  That SmartAds does not group users

12   according to similar interests or needs, correct?

13              "ANSWER:  I agree that it does not group users.

14              "QUESTION:  It doesn't group users at all, right?

15              "ANSWER:  It does not -- that is what I thought you

16   asked.

17              "QUESTION:  Right.  So you agree?

18              "ANSWER:  I agree."

19              THE WITNESS:  That is the same answer I gave.

20   BY MR. NELSON:

21   Q.  Again, we will let the jury decide whether it is the same

22   answer.

23   A.  All right.

24   Q.  So now you mentioned the template again.  By the time of

25   your deposition, did you identify any attribute templates
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   683

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 1   that would provide information as to whether other users have
 2   similar interests or needs?
 3   A.  Other than presenting ones that has to a query because a
 4   query represents similar interests or needs, no.
 5   Q.  So let's look at your deposition at 108, begin at Line 10
 6   through 18:
 7          "QUESTION:  Okay.  Can you identify any attribute
 8   templates that would provide information as to whether other
 9   users have similar interests or needs?
10          "ANSWER:  Would you like me to go through each and
11   every one of them?
12          "QUESTION:  Well, are you -- are you aware of any?
13          "ANSWER:  I am not aware of any at this point."
14   BY MR. NELSON:
15   Q.  Okay.  Well, let's talk a little bit more about this idea
16   of content-based filtering and collaborative filtering, okay?
17   A.  Sure.
18   Q.  And, specifically, claim 10 is one of the claims that you
19   provided opinions on, claim 10 of the '420 patent; is that
20   right?
21   A.  Yes, I did.
22   Q.  You would agree that claim 10 requires both content-based
23   filtering and collaborative feedback filtering, right?
24   A.  Could you show me claim 10 so I can have it right in
25   front of me?
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   684

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 1   Q.   Sure.   It might be in your book there.

 2   A.   Okay.   Your question, please?

 3   Q.   Yeah.   You agree that claim 10 requires both

 4   content-based filtering and collaborative feedback filtering,

 5   right?

 6   A.   I believe that it requires the filtering on the combined

 7   of the two of them.

 8   Q.   So let's look back at PDX-53.   This is one of your

 9   slides, right, that you presented?

10   A.   This is one of my very early slides, yes.

11   Q.   Okay.   And here you are highlighting your summary of

12   opinions and discussing the patent, correct?

13   A.   I was introducing the jury to the components that I think

14   are necessary for the patent, yes.   Correct.

15   Q.   Right.   And here you highlighted both collaborative and

16   content-based filtering, correct?

17   A.   Yes.

18   Q.   And if we look -- do you have the patent in front of you?

19   A.   I don't know.   Do I?

20   Q.   I think it was in your binder that --

21   A.   This is your binder.

22   Q.   Tab 20.

23   A.   The first I have seen.

24   Q.   Tab 2.   No, looked at that one.   Remember when we looked

25   through all the documents before?
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   685

```
1    A.   Yes, but I did not know.  I did not look.
2    Q.   Okay.
3    A.   You said Tab 2?
4    Q.   Yes.
5    A.   Yes.  In Tab 2.
6    Q.   So if we look at column 23 of the patent, you agree that
7    is part of the specification of the patent?
8    A.   Yes.  Column 23, yes, I do.
9    Q.   So here it says, "The present invention combined
10   collaborative filtering with content-based filtering in
11   measuring informons for relevancy."  Do you see that?
12   A.   Yes.
13   Q.   Okay.  So you think that's an accurate statement of the
14   invention described?
15   A.   The invention described is what is defined in the claims.
16   The claims define the invention.
17   Q.   So you think that claim 10 of the '420 patent is
18   inconsistent with this description?
19   A.   I did not say that.  You're pulling one line out of the
20   patent.  I'm telling you, ask me what I thought the invention
21   was.  The invention is -- the inventions are each claim
22   separate.  The inventions are the claims.  You asked me are
23   the claims the invention, sure.  You want -- you asked one
24   particular line of the patent, one particular line of the
25   patent.
```

Frieder, O. - Cross cont'd   686

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 1   Q.  Now, let's look at PDX-87.  Let's focus in on that blue.

 2   A.  Okay.

 3   Q.  So you highlighted in blue, "A content-based filter."

 4   You see that?

 5   A.  Yes.

 6   Q.  But you didn't highlight any of the rest of the element,

 7   correct?

 8   A.  I highlighted it because it's easy to see.  When I make

 9   presentations, I don't want the whole lengthy item unless I

10   need to show it to demonstrate the four colors.

11   Q.  You agree with me that the element that begins, "The

12   content-based filter system," in claim 10 of the '420 patent

13   requires more than just a content-based filter system,

14   correct?

15   A.  It is a content-based filter system for receiving

16   informons from the scanning system and for filtering the

17   informons on the basis of applicable content profile data for

18   relevance of the query, yes.  That is the relevance of the

19   query.  I should be able to filter based on the relevance of

20   the query.

21   Q.  So you agree that content-based filter system for

22   receiving the informons from the scanning system and for

23   filtering the informons with the basis of applicable content

24   profile data for relevance to the query, right?

25   A.  Yes.
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   687

```
 1   Q.  You've got to have all those things to meet that element,
 2   right?
 3   A.  It is the whole element you need, yes.
 4   Q.  Okay.  And if we look at claim 25, this is claim 25 of
 5   the '420 patent, you have that in front of you, as well.  And
 6   you recall discussing a bit of claim 25 and explaining it was
 7   a method claim, don't you?
 8   A.  That was actually done this morning.  Yeah.  I think we
 9   started with that.
10   Q.  Right.  And you said that for method claim in order to
11   meet the element you actually have to do what's in there,
12   right?
13   A.  That is what it is.  I don't know if that is exactly the
14   words I used, but, yeah, that is generally correct.
15   Q.  Okay.  So here what claim 25 says, and let's focus in on
16   that second element now, says, "Receiving the informons in a
17   content-based filter system from the scanning system and
18   filtering the informons on the basis of applicable content
19   profile data for relevance to the query," right?
20   A.  That is correct.
21   Q.  So the content-based filter system has to do with filter,
22   correct?
23   A.  This has to be performed.  It has to be performed, yes.
24   Q.  So let's talk a little bit about your opinions, then,
25   with respect to the accused SmartAds product.
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   688

```
 1   A.   Okay.

 2   Q.   SmartAds component, I guess is a better way to say it.

 3   A.   Okay.

 4   Q.   Would you agree with that?

 5   A.   We can talk about the SmartAds component?

 6   Q.   Right.  SmartAds is a product in and of itself, right, or

 7   service?

 8   A.   SmartAds would be -- is their ad server system.  You said

 9   SmartAds?

10   Q.   SmartAds.

11   A.   Component, correct.

12   Q.   Right.  That is not the entire ad service system, right?

13   A.   No.

14   Q.   Many other components of the ad server system, right?

15   A.   Many other components.

16   Q.   Hundreds, maybe thousands?

17   A.   Many other components.  I'm not going to guess how many.

18   Q.   So let's have claim 10 back up there.

19   A.   That is not claim 10.

20   Q.   No.  He is going to get there.

21   A.   Oh, okay.

22   Q.   I want to focus in on this element.  "A content-based

23   filter system for receiving the informons from the scanning

24   system and for filtering the informons on the basis of the

25   applicable content profile data for relevance to the query."
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   689

```
 1   You see that?
 2   A.  Yes.
 3   Q.  Okay.  So now we've got to step back a little bit, and we
 4   were having this discussion a little bit earlier about the
 5   attribute templates, okay.  You recall that?
 6   A.  Yes.
 7   Q.  So you agree the attribute templates are basically
 8   questions, is the way to put it, that can be asked about the
 9   current ad query pair, right?
10   A.  That was your -- that was the way you phrased it.
11   Q.  Yeah, I'm trying to simplify it so we can both be on the
12   same page.
13   A.  It is basically a mechanism of filling in blanks of the
14   structure, what kind of blank means.
15   Q.  And what the result of applying those attribute templates
16   are attributes, would you agree?
17   A.  The result is you get the attributes, and the result of
18   the whole template of the string, I agree.
19   Q.  The result of the whole template.  So let's talk about
20   that a little bit.  What you are saying is -- I think you
21   talked about this -- there may be things called feature
22   templates that look for particular facts, right?
23   A.  Yes.
24   Q.  And attributes, templates would just have those facts sat
25   next to each other, correct?
```

Frieder, O. - Cross cont'd   690

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 1   A.   Correct, assuming the attributes ask for it, yes.

 2   Q.   And so what you're saying is the string, which is these

 3   individual features, laid next to each other, right?

 4   A.   Basically.

 5   Q.   And that would give you an attribute?

 6   A.   Yes.

 7   Q.   Now, the attribute then is used to look up an odd

 8   multiplier, correct?

 9   A.   Basically.  Generally speaking, the string is, yes.

10   Q.   And the odds multipliers are feedback data, is what

11   you're saying?

12   A.   The odd multipliers represent feedback data.

13   Q.   So now the thing that I didn't hear in your testimony,

14   and maybe you can clarify this for me, is what is the content

15   profile data?

16   A.   It's the information that is relevant to the query.

17   Q.   It's the information that is relevant to the query?

18   A.   The informons are the basic applicable content profile

19   data for relevance to the query.  That is filtering the

20   informons on the basis of something that is relevant to the

21   query.

22   Q.   Right.  So what I'm asking you is, what are you saying is

23   the content profile data for purposes of this element of

24   claim 10 in the accused SmartAds system?

25   A.   The parts of the templates that basically are associated
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   691

1   with it.

2   Q.   The parts of the template --

3   A.   The content-based templates.

4   Q.   You mentioned a couple of those on your direct

5   examination, right?

6   A.   I mentioned I think -- I'm not sure if I mentioned more,

7   I think -- I know I mentioned at least two.

8   Q.   Okay. Okay. So getting back to what we were discussing

9   before, that template will give you an attribute, right?

10   A.   Template will give you -- a sponge of them will give you,

11   yes.

12   Q.   And that attribute, then, is used to look up a

13   multiplier, right?

14   A.   That string of the attribute is potentially, depending on

15   what you have.

16   Q.   Well, it would actually be a string of each?

17   A.   Right.

18   Q.   You agree?

19   A.   Fine, yeah.

20   Q.   Okay. And, in fact, the only thing in SmartAds for which

21   there is an odds multiplier is for an attribute, would you

22   agree?

23   A.   It's associated, yes.

24   Q.   There are no odds multipliers associated with features,

25   correct?

Frieder, O. - Cross cont'd   692

1 A.   Correct.

2 Q.   So, and those odds multipliers are all feedback?

3 A.   Those odd multipliers are derivation feedback.

4 Q.   Derived from feedback, but you are relying on the odds

5 multipliers as your feedback data for purposes of your

6 opinion, correct?

7 A.   I'm relying on the odd multipliers as the feedback data

8 basically. They are derived, but yes.

9 Q.   Right. And I think we saw from some of the testimony

10 that was played from some of the Google witnesses, Mr. Furrow

11 in particular, that those odds multipliers are then

12 multiplied together to get the pCTR, right?

13 A.   At least from Mr. Furrow, yes.

14 Q.   Okay. And the pCTR, that's the predicted click-through

15 rate, right?

16 A.   The pCTR is the predicted click-through rate, yes.

17 Q.   If we get down to the page, your infringement opinions

18 are based on what you say is filtering based on that pCTR,

19 right?

20 A.   It's part of what I say. You need to have -- you need to

21 have the search component, you need to have the collaborative

22 component, the content component, and then when the

23 content/collaborative combined, then you need the filter

24 based in that combination. It is not just the one element

25 you need.

Frieder, O. - Cross cont'd   693

```
 1   Q.  Understood.  But the filtering that you're focusing on is
 2   filtering using the pCTR, that is what you are saying, right?
 3   A.  It's multiple different pCTRs, but yes.
 4   Q.  Right.  And just more specifically, you're talking about
 5   the various steps where there is a disabling where ads may
 6   not make it into the auction, right?
 7   A.  That's one of them, that's correct.
 8   Q.  Now, in your report you didn't offer any opinion that --
 9   without the disabling step, that the ads that are to be shown
10   are any different, right?
11   A.  I basically stated that only eligible ads will make it
12   through.  Basically have to pass certain criteria.
13   Q.  Right.  But you didn't state any opinion in your report
14   that without the disabling steps that you point to that the
15   ads that would actually be shown would be any different,
16   right?
17   A.  I say the better ads would be -- would make it through,
18   that's correct.
19   Q.  Understood.  But all I'm asking is you didn't offer an
20   opinion in your report saying that if the disabling step was
21   removed, that the better ads now would not be shown and worse
22   ads would be shown, correct?
23   A.  I don't recall making that statement.
24   Q.  Okay.  So go back to this content profile.  So the pCTR,
25   then, that is the odd multipliers which you say are feedback
```

Frieder, O. - Cross cont'd   694

1   data multiplied together, correct?

2   A.   Okay.   Yeah.

3   Q.   You agree?

4   A.   Yeah.

5   Q.   Okay.   Good.   So now, the attribute is used to look up

6   the odds multipliers corresponding to that attribute, right?

7   A.   The attribute is used to basically find, combined,

8   correct.

9   Q.   Well, the attribute is not combined with the odds

10 multipliers at all, is it?

11 A.   I'm taking the particular value and using it as a lookup

12 and to get the particular feedback data.   So I view it as

13 combined, yes.

14 Q.   It's a lookup.   It tells you where it is?

15 A.   It gives you the corresponding value.

16 Q.   Right.   So you don't take the attribute and merge it

17 together with whatever the odds multiplier value is, right?

18 A.   I am combining it because I'm taking the two sources and

19 combining them, but, no, I'm not merging them together, no.

20 Q.   Right.   So the odds multiplier is feedback and it is what

21 it is, right?

22 A.   The odds multiplier is the derivation of the feedback,

23 and it is what it is.

24 Q.   So you agree with me that there are a number of templates

25 that are used, many of the templates that you don't even

Frieder, O. - Cross cont'd   695

```
 1   contend provide any kind of content-based analysis, right?
 2   A.   I agree.   There are those that are not.
 3   Q.   Right.   So for those templates where you generate an
 4   attribute, you're not saying that those attributes are then
 5   combined with whatever the odds multiplier is, correct?
 6   A.   I am stating that basically for my infringement analysis
 7   I'm looking at those that are content, combine those with
 8   those that are -- get the odds multipliers.
 9   Q.   Well, let's explore that a little bit further.   So you
10   would agree with me that keeping track of how often a user
11   selects a document with a particular word in it, that is
12   feedback, right, that is feedback analysis?
13   A.   Say that again.
14   Q.   Yeah, you would agree with me that keeping track of how
15   often a user clicks on a document with a particular word in
16   it is feedback analysis, right?
17   A.   I agree with you that it is keeping track on which -- if
18   a user clicks on a document, whatever reason, it is feedback
19   for that query and that document, that advertisement on
20   document.
21   Q.   Right.   So, for example, if the document had the word
22   "cow" in it and I figured out how many times, or I kept track
23   of how often people clicked on a document with the word "cow"
24   in it, that would be feedback analysis, right?
25   A.   If you're looking for a particular ad in a particular
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   696

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 1   query, and you're basically recording it's a click or not, I

 2   don't know why you click it, if that is your question.  But

 3   it is basically, the bottom line is if there is an ad and

 4   there is a query and I click that recording, yes, that is

 5   feedback.

 6   Q.  Right.  So simply organizing your feedback data based

 7   upon some word in the document is not a content-based

 8   analysis, correct?

 9   A.  The content-based analysis is comparing a query to an

10   advertisement.  The collaborative part is basically which

11   query some item was clicked or not clicked.

12   Q.  Okay.  So keeping track of how many times somebody clicks

13   on a document that has a particular word, that is not content

14   analysis, correct?

15             MR. CIMINO:  Objection.  Asked and answered.

16             THE COURT:  Objection sustained.

17   BY MR. NELSON:

18   Q.  Okay.  So let's look at your slide PDX-71.  Now, you

19   recall this discussion where you were discussing Figure 6 of

20   the patent?

21   A.  I think in the discussion was on Thursday, if I'm not

22   mistaken.  Yeah, I recall.

23   Q.  Right.  And what you're showing here is content data

24   score and a collaborative data score and an averaging of the

25   two, right?
```

Frieder, O. - Cross cont'd   697

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 1   A.  I am showing the content data score, which I have here is
 2   7, the collaborative data score, which I have here as 5, and
 3   I'm showing the average of 6, that is correct.
 4   Q.  So in SmartAds, there is no averaging of a content data
 5   score with a collaborative data score, is there?
 6   A.  In -- basically I'm showing is a mechanism of getting a
 7   score.  This is just an illustrative notion.  In this -- this
 8   is what I use to explain is one possible combination of the
 9   information to get a complete rating predictor.  That is all
10   it shows.
11   Q.  Right.  Understood.  But all I'm asking you is in
12   SmartAds, there is no averaging of a content data score and a
13   Collaborative data score, is there?
14   A.  There is a different combination.  It is not an averaging
15   combination.
16   Q.  Right.  What you are saying is that certain attributes
17   are used to look up an odds multiplier, which is itself
18   feedback, right?
19   A.  I'm stating that basically you find those that are the
20   content-based, and let's forget attribute, and then they will
21   look up the corresponding attribute of the odds multipliers,
22   that's correct.
23   Q.  Now, you're aware that there are other things that go to
24   determine whether a particular ad is going to be in the
25   auction, correct?
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   698

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 1   A.   There are other things.
 2   Q.   Right.  So pCTR is not the only thing, correct?
 3   A.   It is not necessarily the only thing.
 4   Q.   Right.  In fact, there's -- what is actually used to set
 5   the threshold or the minimum bid is what's called the
 6   long-term value, right?
 7   A.   In one of the -- in one, yes.
 8   Q.   And the long-term value has the predicted click-through
 9   rate as one factor and has the bid as another factor, right?
10   A.   Yes.
11   Q.   So --
12   A.   You need me to see -- the screen went blank.
13   Q.   I don't think --
14   A.   Fine.
15   Q.   Just you and me.
16   A.   No problem.  I just saw the screen go blank, I just
17   wanted to make sure.
18   Q.   Nothing I have right now.
19   A.   Okay.
20   Q.   So the bid is another factor, right?
21   A.   Could you repeat?
22   Q.   Yeah, to calculate the long-term value you have the bid
23   as another factor, right?
24   A.   There are different factors.
25   Q.   Right.  And there is an LQ and a CQ, right?
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Frieder, O. - Cross cont'd   699

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 1   A.   Among others, yes.
 2   Q.   And we haven't spent any time talking about those, right?
 3   A.   I did not spend any time talking about those.
 4             THE COURT:   What is the LQ and the CQ, for the
 5   uninformed here, please, between the two of you?
 6   BY MR. NELSON:
 7   Q.   An LQ is a landing page quality, right?
 8   A.   Yeah.
 9   Q.   And you didn't rely on that for purposes of your
10   opinions, right?
11   A.   I relied on that for a different -- not what you're
12   looking for with regard to filtration.
13   Q.   Right.  Not for the filtration, not for the content-based
14   filtering, correct?
15   A.   I did not rely on it for the content-based fitting.  I
16   wouldn't say that I didn't rely on it at all.
17   Q.   Right.  And CQ is creative quality, right?
18   A.   Correct.
19   Q.   And you didn't rely on that for the content-based
20   filtering here, correct?
21   A.   No, that was not a part of the -- those are factors, not
22   something I relied on, no.
23   Q.   And you didn't rely on either LQ or CQ for the
24   collaborative aspect of your opinion, either, right?
25   A.   No, I did not rely on either CQ or LQ for that, no.
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   700

```
 1   Q.   Nor on the advertiser's page, correct?

 2   A.   No.

 3   Q.   This microphone is right in the middle here, makes it a

 4   little difficult.

 5   A.   I know.

 6   Q.   Yes.  Okay.  So let's go to claim 25.

 7   A.   Now I see the monitor will come on.

 8   Q.   Yes.  So claim 25, "Receiving the informon through a

 9   content-based filter system from the scanning system and

10   filtering the informons on the basis of the applicable

11   content profile data, the relevance of the query," you see

12   that?

13   A.   Yes.

14   Q.   So the pCTR is the combined -- is multiplied together

15   odds multipliers, right?

16   A.   The pCTR is based -- in order to know the particular odds

17   multipliers, you needed to have the content to fill in to the

18   template.

19   Q.   Right.  But the content doesn't make its way into the

20   odds multiplier, right?

21   A.   The contents identify the odds multipliers.

22   Q.   It tells you which one to use but it doesn't make its way

23   into the odds multiplier, right?

24   A.   Well, if it tells you which one to use, it is obviously

25   making its way.  And without it you wouldn't know which one
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   701

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 1   to use.
 2   Q.  Right.  And without all the other templates, the
 3   attributes you wouldn't know which odd multipliers to use,
 4   correct?
 5   A.  Without the other ones, as well, but I'm focusing on the
 6   ones that you actually need.
 7   Q.  Okay.  So what the pCTR is comprised of, in terms of the
 8   odds multipliers, is all feedback data, right?
 9   A.  The pCTR is comprised of the particular ones, particular
10   feedback data that was chosen by the content-based, at least
11   some of them.
12   Q.  Right, but that's --
13   A.  Right.
14   Q.  But those are all feedback data, right?
15   A.  The odds multipliers are representation of the feedback
16   data, derivation of the feedback data, but the particular
17   ones are the ones that are chosen.
18   Q.  So now let's talk about the '664 patent a little bit.
19   Let's put up claim 1 of that so we have it all in front of
20   us.
21   A.  Just one second.
22   Q.  You need to wait?
23   A.  I was told to signal, and not to pick it up myself.
24   Q.  Okay.  So let's focus on claim 1 here.
25   A.  Thank you.  Yes.
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   702

1   Q. You see claim 1, and I want to focus on that last

2   element. See where it says, "A content-based filter system

3   for combining the information from the feedback data system

4   with the information from the scanning system and for

5   filtering the combined information for relevance to at least

6   one of the query and the first user." See that?

7   A. Yes.

8   Q. Okay. I thought I understood you to say on your direct

9   examination that what you were alleging for purposes of your

10 infringement opinions to be the combined information was the

11 pCTR, the predicted click-through rate?

12 A. What I was assumed -- what I was stating for my combined

13 information was the pCTR was based on particular content that

14 were chosen and the particular odds multipliers.

15 Q. Right. So the pCTR is, you're saying, for purposes of

16 claim 1 of the '664 patent, is the combined information, that

17 is what you are saying, right?

18 A. The pCTR score is a ranking indicator, is what I'm

19 saying, that is correct.

20 Q. That is the combined information?

21 A. That is the representation of the combined information,

22 correct.

23 Q. Right. So the pCTR, that is a score, I think you just

24 said, right?

25 A. PCTR is a ranking, is a parameter, is an indicator,

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   703

1   measure of goodness.

2   Q. Right. So pCTR is not filtered in the SmartAds system,

3   right?

4   A. Ads are filtered in the SmartAds system.

5   Q. Right. So ads are filtered, pCTR is not filtered, right?

6   A. PCTR associated with a particular ad is what is being

7   used to filter out the ad. I'm filtering out ads using the

8   pCTR.

9   Q. Right. But so let's look at the claim. The claim says,

10 "A content-based filter system for combining the information

11 from the feedback system with the information from the

12 scanning system and for filtering the combined information."

13 You see that?

14 A. Yes.

15 Q. So you agree that the claim requires that you filter the

16 combined information, right?

17 A. Sure. It says it right there.

18 Q. Okay. You're saying pCTR is the combined information?

19 A. I said pCTR is a representation of it, yeah.

20 Q. Okay. That is what you are relying on for purpose of

21 that element, pCTR is the combined information, according to

22 you, right?

23 A. I'm combining -- it is for the part of the element that

24 is the last part of it, yes.

25 Q. PCTR is not filtered?

Frieder, O. - Cross cont'd   704

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 1   A.   PCTR is used to filter the particular ad, the

 2   corresponding to that ad.  In fact, the patent, in Figure 6,

 3   which explains exactly the combination, does exactly that.

 4   If you look at the Figure 6, it has the input coming in, the

 5   input as the two types of input coming in, and the score

 6   computed, and then it fillers based on that.  That is exactly

 7   what the patent does.

 8   Q.   Sorry.  I didn't mean to interrupt you.  I thought you

 9   were done.

10   A.   I am now.

11   Q.   Okay.  Thank you.  But, sir, didn't you just tell me that

12   for purposes of determining what the invention is I need to

13   look at the claim, right?

14   A.   Yes.  And you need an explanation of what the claim is.

15   To me it was very clear that on filtering based of the pCTR,

16   for relevance to a particular ad, filtering ad, it was pretty

17   clear to me.

18   Q.   So you agree that for purposes of your infringement

19   opinion that what you say is being filtered are ads, right?

20   A.   What I'm saying is the -- for infringement, you're

21   filtering ads, yes, that's correct.

22   Q.   Right.  But you're saying that pCTR in the SmartAds is

23   the combined information, right?

24   A.   I'm saying that pCTR is the representation of -- the

25   combined information in relation to a particular ad, yes, I
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Frieder, O. - Cross cont'd   705

1   am.

2   Q. So now let's go to the PDX-4.6. So here what I'm showing

3   you is a comparison in claim 10 of the '420 patent to claim 1

4   of the '664 patent. Do you see that?

5   A. Yes. If you could make it larger, I can see it.

6   Q. I think he can do that. So I think I heard you say that

7   while the ads are filtered on the basis of the pCTR, and that

8   is your infringement opinion for claim 1 of the '664 patent,

9   rite?

10   A. Yes, because the basis of the representation of the ads,

11   yeah, that's correct.

12   Q. So let just look at some of the claim language. Look at

13   claim 10, the second element we looked at earlier.

14   A. That is the second one. Okay. So you are looking for a

15   content-based filter system for receiving the informon?

16   Q. Yes. Says, "Content-Based filter system for receiving

17   the informons from the scanning system and for filtering the

18   informons on the basis of applicable content profile data."

19   You see that?

20   A. Yes.

21   Q. So that claim, claim 10 says you're filtering on the

22   basis of applicable content profile data, correct?

23   A. Yeah.

24   Q. Now let's look at the last element of claim 1 of the '664

25   patent. Now here you see that this says, "Filtering the

Frieder, O. - Cross cont'd   706

1   combined information." You see that?

2   A. Yeah.

3   Q. On the basis of doesn't appear in this claim, correct?

4   A. No. The word "basis" does not appear, no.

5   Q. And "based on" doesn't appear here, either, right?

6   A. No.

7   Q. Now, let me shift gears a little bit. I think on your

8   direct -- this would go back to Thursday, I believe?

9   A. Depends on the question you're going to ask.

10 Q. I'm just kind of refreshing your recollection.

11 A. My first day of direct was the 18th, I believe, at 2:30.

12 I may be wrong.

13 Q. Yeah. In reference to the figures of the patent, I think

14 you said that it would be difficult to implement these things

15 in a real machine or a real system, right?

16 A. Which -- I don't follow. Which figures?

17 Q. Well, you were talking about figure 9, I believe, at the

18 time, and perhaps Figure 6.

19 A. Okay. What was your question?

20 Q. Yeah. I think what you said is that it would be

21 difficult, not easy, to implement these things in real

22 systems, is what you're saying, right.

23   MR. CIMINO: Objection.

24   THE COURT: The nature of your objection?

25   MR. CIMINO: Oh, it's still not clear what he's

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   707

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 1   speaking about.  It would be easier --

 2            THE COURT:  The Court would sustain that objection.

 3   The nature of these things -- and I think it's Figure 6, and

 4   I think it's figure 9, and so let's be clear what figure we

 5   are talking about and what things we are talking about.

 6   BY MR. NELSON:

 7   Q.  Let me just show you the testimony and see if it

 8   refreshes your recollection?

 9            MR. CIMINO:  Objection, Your Honor, it's improper

10   impeachment.

11            THE COURT:  He is not trying to impeach him.  You

12   find out what figures you are talking about, then you ask him

13   a direct question.  Could we not refresh his recollection.

14   We are trying to ask a question.

15            MR. CIMINO:  Yes, Your Honor.

16            THE COURT:  See what you are trying to ask and then

17   he'll answer.

18            THE WITNESS:  Okay.

19   BY MR. NELSON:

20   Q.  All right.  Well, do you think that it would be simple to

21   implement a system that is shown in Figure 9?

22            THE COURT:  Please show us Figure 9 so we will see

23   what you are talking about here.

24   BY MR. NELSON:

25   Q.  Figure 9 of the '420 patent.
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   708

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 1   A.  Okay.  So you are asking if I think it would be easy to
 2   implement?
 3   Q.  Yes.
 4   A.  No, it would be difficult to implement.  You -- to do it
 5   for a real volume of items, to do it for a real performance
 6   code, I mean, it would be very difficult.
 7   Q.  Right.  And you'd have to write source code and some of
 8   the other things that we talked about, right?
 9   A.  Have to write a lot of it.
10   Q.  Now, you agree that the patents did not teach predicted
11   click-through rate, right?
12   A.  The patents were filed before predicted click-through
13   rate, but more so -- that is a Google terminology of what
14   they do in the patent.  I would not agree with you.  I would
15   agree with you that it may not be a specific predicted
16   click-through rate, but what it would do is it would teach
17   you the content behind it.  So I don't agree with you, no.
18   Q.  Separate and apart from whether they predate it or not,
19   the patents-in-suit would not teach you how to calculate a
20   predicted click-through rate, correct?
21           MR. CIMINO:  Objection, Your Honor.  Predicted
22   click-through rate is not a word in this patent.
23           THE COURT:  I think he asked and answered that,
24   Mr. Nelson.  He just answered that question.
25           MR. CIMINO:  In that case I object as asked and
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   709

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 1   answered.

 2            THE COURT:  The Court overrules.

 3            MR. NELSON:  Then I'm going to play the deposition

 4   because he just answered inconsistently with that.

 5            THE COURT:  Okay.  Well, if that is what he is

 6   doing, that is another thing whether you are impeaching him.

 7            MR. NELSON:  What I was doing was asking him the

 8   specific question that was asked in the deposition.

 9            THE COURT:  Oh.  Sounds like the same question.  We

10   will keep on going.

11            MR. NELSON:  I know it did, but I just wanted to be

12   sure because he objected a few times and said, well, maybe

13   that is not proper impeachment, and I didn't want to be

14   blamed for doing something, Your Honor.

15            THE COURT:  Now we have expounded, let's ask the

16   question.

17   BY MR. NELSON:

18   Q.  Separate and apart from whether they predate it or not,

19   the patent-in-suit would not teach you how to calculate a

20   predicted click-through rate, correct?

21   A.  Google -- the word predicted click-through rate is what

22   Google does.  It will teach you conceptually but it will not

23   teach you what Google does other than basic combining a

24   content and collaborative.

25   Q.  So it won't teach you how to Google the predicted
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Frieder, O. - Cross cont'd   710

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 1   click-through rate, right?
 2   A.  It will not teach you the specific of Google's predicted
 3   click-through rate.  It will teach you the concept.
 4   Q.  In fact, you believe that Google's predicted
 5   click-through rate is Google's invention, right?
 6   A.  The way Google makes its predicted click-through rate is
 7   it is developed by Google, yeah.  But the -- it doesn't --
 8   yes.
 9   Q.  Yes, it is Google's invention?
10   A.  Google came up with how it does predicted click-through
11   rate, but it is basically this patent teaches you the
12   combining.
13   Q.  So you agree with me that Google uses an auction system
14   to determine the ranking and placement of ads, right?
15   A.  Your figure is gone, but, yeah, I agree that the Google
16   uses an auction, sure.
17   Q.  Right.  So AdWords uses an auction system to decide how
18   the ad would be ranked and how they are going to be placed,
19   right?
20   A.  Yes.
21   Q.  Okay.
22   A.  Among other components, yes, the auction part of the
23   components.
24   Q.  Patents-in-suit don't say anything about an auction
25   system, correct?
```

Frieder, O. - Cross cont'd   711

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 1   A.   No.   The patents do not talk about auction, that is

 2   correct.

 3   Q.   And the patents-in-suit don't teach you how to filter

 4   based on bids, correct?

 5   A.   The patents-in-suit does not teach you how to filter

 6   based on bids.

 7   Q.   And, in fact, the ranking and placement of ads is not

 8   something that you accused them of infringing, right?

 9   A.   That is -- it is true that I do not -- although it is

10   true that I do not accuse Google of the ranking of the

11   placement of ads infringing, you don't get to it unless you

12   basically survive the filtering of the ad.

13   Q.   And you agree that the patents-in-suit don't disclose any

14   specific attribute templates, right?

15   A.   The patent-in-suits do not state a specific attribute

16   template, no.   Would be content, that's correct.

17   Q.   Right.   But one of those concepts is not attribute

18   templates, right?

19   A.   No.   There is no attribute template discussed in the

20   patent, that's correct?

21   Q.   Now, you're aware of Dr. Carbonell?

22   A.   What do you mean am I aware?   Harvey Carbonell is one of

23   the foremost experts.   Sure, I know.

24   Q.   So you're aware that he is one of I/P Engine's expert in

25   talking about invalidity?   Are you aware of that?
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   712

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 1   A.  I am aware of that.
 2           MR. CIMINO:  Objection, Your Honor.  Beyond the
 3   scope of direct.  We have another witness coming later in the
 4   week that is going to talk about invalidity.
 5           THE COURT:  Objection sustained.
 6           MR. NELSON:  Well, then, Your Honor, this would
 7   be -- you told us you want live witnesses and not witnesses
 8   by deposition.  So I need to elicit this testimony based upon
 9   something Dr. Carbonell said in his report.
10           THE COURT:  Wait a minute now.  We've got to get
11   this thing in context.  This line of questioning on validity
12   is beyond what --
13           MR. NELSON:  I'm not asking about invalidity.  I'm
14   asking him whether he talked to Dr. Connell about his
15   infringement opinion.
16           THE COURT:  Oh, okay.  If that has been the
17   question, I don't think we would have had an objection.
18   Okay.  Continue.
19           MR. NELSON:  I was just trying to give context, Your
20   Honor, of who it was.
21           THE COURT:  Okay.  Let's continue.
22   BY MR. NELSON:
23   Q.  So you didn't discuss your -- sorry.  There's something
24   floating in my eyes?
25   A.  You okay?
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   713

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 1   Q.  Yeah, no, there really was something here.

 2   A.  That is a very dangerous sign.

 3           THE COURT:  Wait a minute.  Drop the miscellaneous

 4   commentary.  Let's get to the question.

 5   BY MR. NELSON:

 6   Q.  All right.  So you didn't discuss your infringement

 7   opinions in this case with Dr. Carbonell, correct?

 8   A.  I basically talked to Dr. Carbonell.  I told him that I

 9   thought that there was infringement, but I didn't go into

10   specifics, no.

11   Q.  Mr. Carbonell in his report says, "I understand from

12   Dr. Frieder that Google system uses a combination of

13   content-based and collaborative feedback data to filter

14   advertisements for relevance to the query."  Did you tell

15   that to Dr. Carbonell?

16           MR. CIMINO:  Objection, hearsay.  Dr. Carbonell will

17   be here to say what is in his report and what people told

18   him.

19           THE COURT:  Well, the objection is going to be if

20   Dr. Carbonell -- well, an expert can consider any and all

21   opinions.  So to the extent he is simply asking him what

22   opinions or information he considered, I overrule it.

23           MR. CIMINO:  This is -- the question is not asked

24   about opinion, it is asking whether there was a conversation

25   that took place based on a line that's in Dr. Carbonell's
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Frieder, O. - Cross cont'd   714

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 1   report.  Dr. Carbonell can explain that line.

 2           THE COURT:  I think I'm going to sustain the

 3   objection, Mr. Nelson.

 4           MR. NELSON:  Well, Your Honor, may I explain?

 5           THE COURT:  Do it shortly.

 6           MR. NELSON:  He says that he didn't talk to

 7   Dr. Carbonell about that, and Dr. Carbonell says --

 8           THE COURT:  See, that is the problem here.

 9   Objection sustained.  Clear it up on another witness.  And

10   you are subject to recall.

11           MR. NELSON:  Okay.  Fair enough, Your Honor.

12   BY MR. NELSON:

13   Q.  So just so we are clear, you didn't do any kind of prior

14   art studies for purposes of your opinions in this case,

15   right?

16   A.  In what terms?  I need you to explain.  Do I know what

17   the past -- I can't answer that question.  The reason I

18   really can't answer that question is because the following:

19   I have been in this field for 20 plus years.  I have attended

20   and participated in TRC for, I don't know, forever,

21   virtually.  And, sure, you see periodically things that is

22   going on.  So I was around and active in the field when these

23   patents were done.

24           So to say that I don't know of any prior art that

25   I -- means I have to ignore all my past?  No, I know things
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   715

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 1   from the past, if that's your question.
 2   Q.  No, I don't think that is what I asked you.  What I said
 3   was you didn't do any prior art study for purposes of your
 4   opinions in this case?
 5            MR. CIMINO:  Objection, again, beyond the scope of
 6   direct, Your Honor.
 7            THE COURT:  Sustained.
 8   BY MR. NELSON:
 9   Q.  Just so we are clear, you're not offering any invalidity
10   analysis here, right?
11   A.  I believe that if the USPTO, basically, had different
12   people evaluate this -- sorry, United States Patent &
13   Trademark Office, if they had -- there were four different
14   names in the two different patents talking about the
15   specification, and they allowed it, and the patent issued,
16   and if Dr. Carbonell, who is a world expert in she learning
17   believes that these are valid, yes, I believe they are valid.
18            MR. NELSON:  Your Honor, I move to strike that.
19   That is not responsive.  All I asked him is whether he's
20   offering invalidity opinion, and I got some big, long speech.
21            THE WITNESS:  I thought they were valid.
22            THE COURT:  Objection overruled.
23            MR. NELSON:  He didn't put that in the report.
24            THE COURT:  He did give a long speech but you've
25   been tugging at it, and we are trying to move on around it
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   716

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 1   because I said it was beyond the scope on the validity, and

 2   you come right back to it again.  So now let's continue to

 3   move on.

 4           MR. NELSON:  All right.  Fair enough.

 5   BY MR. NELSON:

 6   Q.  So let's talk about the '361 patent.  Now, put it up

 7   there, PX-229.  Show you the first page.  So you offered a

 8   little bit of testimony about --

 9   A.  Really, if you want me to look in detail, you'll really

10   need to blow it up.

11   Q.  I'm not asking you in detail because I don't -- I don't

12   want to go beyond the scope of direct.

13   A.  Fair enough.

14   Q.  So this was the overture patent you talked about, right?

15   I think that is what you called it?

16   A.  I don't think so.  I think I called it the other patent,

17   but okay.  Actually I called it the '361.

18   Q.  So let's call it the '361, then.

19   A.  Fine.

20   Q.  Okay.  So this '361 patent is not about ad relevance, is

21   it?

22   A.  Oh, absolutely notice.  It is definitely missing the

23   relevance.  That is why these patents are better.

24   Q.  So it doesn't have anything to do with ad relevance,

25   correct?
```

JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   717

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 1   A.   It does not have to do with relevance.

 2   Q.   Talking about data?

 3   A.   It talks about data.

 4   Q.   And in addition, the '361 patent doesn't teach filtering

 5   for relevance, correct?

 6   A.   It doesn't talk about relevance, it doesn't talk about

 7   relevance.  It can't filter based on relevance, correct.

 8   Q.   All right.  So you didn't provide any opinions in your

 9   report concerning the comparability of the technology of the

10   patents that are subject of the Disney license and sale

11   agreement, did you?

12   A.   I'm not even understanding the question.  So my gut

13   instinct tells me probably not since I don't recognize --

14   Q.   You don't recall providing any opinion like that in your

15   report?

16   A.   No.

17   Q.   And you don't recall providing any opinion in your report

18   concerning the comparability of the technology in the Kyle

19   Myer patent agreement, correct?

20        MR. CIMINO:  Your Honor, objection, beyond the scope

21   of direct.

22        MR. NELSON:  Your Honor, he talks about

23   comparability.

24        THE COURT:  Did you ask questions about the '361

25   patent, as I recall, and some questions about the
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   718

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 1   comparability of this report?
 2           MR. CIMINO:  Yes, Your Honor, but narrowly drawn to
 3   the '361 patent.
 4           THE COURT:  Okay.  And where are you, Mr. Nelson?
 5   He is saying he can't ask questions about the '361 patent.
 6           MR. NELSON:  I'm just trying to confirm that he
 7   didn't offer any opinions on those things, that is all, Your
 8   Honor.
 9           THE COURT:  On which things?
10           MR. NELSON:  Well, we already have with respect to
11   the Disney patents and now I wanted him to confirm he doesn't
12   offer any opinions on the Karl Meyer patent.
13           THE COURT:  Well, no, the '361 patent, that is
14   beyond the scope.
15           MR. NELSON:  Okay.
16           THE COURT:  Only what he testified about.  We are
17   not going to search for others.
18           MR. NELSON:  Okay.  Fair enough, Your Honor.
19   BY MR. NELSON:
20   Q.  So let's now talk about '664 patent, again.  Now, with
21   respect to the '664 patent, you put up one dependent claim
22   and highlighted the word "advertisement," correct?
23   A.  I put on -- with respect to the '664 patent, I put on
24   many independent claims, but one of them was the word
25   "advertising circle," that is correct.  If that is what you
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Frieder, O. - Cross cont'd   719

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 1   meant, then, yes.
 2   Q.   Right.  So there was one claim that you highlighted that
 3   mentioned the word "advertisement," correct?
 4   A.   Yes.  It was a list of whole other ones, yes.
 5   Q.   Okay.  And in the '420 patent, there are 32 claims,
 6   correct?
 7   A.   There are -- I do not know how many claims there are.  I
 8   can look at it.
 9   Q.   You have that in front of you.
10   A.   I only know about the asserted claims.
11   Q.   You have the '420 patent in front of you.
12   A.   It is in Tab 2 for convenience.
13   Q.   Actually, I think it is 36.
14   A.   You're wrong, 36.
15   Q.   Yeah.  36 claims.  And none of those claims mention the
16   word "advertisement," correct?
17          THE COURT:  Look, the only concern here is, you are
18   not talking about the 36 claims.  We are talking about those
19   that are at issue in this case.
20          MR. NELSON:  I'm not going into that.  I'm
21   responding to a point that they -- he had testified on direct
22   that these patents are all about advertisement, and this goes
23   to that issue, Your Honor.
24          THE COURT:  Well, I hope that his testimony has to
25   do with the -- we have enough claims in issue --
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   720

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 1              MR. NELSON:  No.

 2              THE COURT:  -- without talking about the 36.

 3              MR. NELSON:  I can guarantee you I'm not trying to

 4    bring more claims.

 5              MR. CIMINO:  The question should be on claim 5, if

 6    that is the claim he wants to ask him about.

 7              MR. NELSON:  Your Honor, this responds directly to

 8    their implication of these patents about advertisement.

 9              THE COURT:  We talk about these patents, let me get

10    something straight for everybody.  We are talking about these

11    patents, we are talking about the patents with respect to the

12    claims, asserted claims, dependent and independent claims

13    that are before the Court.  That is what we are talking

14    about.  If something is in claim 38 or 30 or 40 is not before

15    this Court.  So your question has to do with the claims

16    before the Court, independent, dependent.

17    BY MR. NELSON:

18    Q.  So none of those asserted claims of the '420 patent

19    mention the word "advertisement," correct?

20    A.  The claims were claims that I show that as advertisement

21    are the same specification as the '420 as in the '664.  So it

22    is exact same specification as in the '420.

23    Q.  No, I understand.

24    A.  So I would imagine you would not have another claim that

25    says advertisement.
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Cross cont'd   721

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 1   Q.  Well, you are familiar with the asserted claims of the

 2   '420 patent, aren't you?

 3   A.  Certainly.

 4   Q.  You have reviewed them?

 5   A.  Oh, absolutely.  I even talked about them.

 6   Q.  And none of those in the '420 patent mention the word

 7   "advertisement," corrected?

 8   A.  No, it did not.

 9   Q.  And you read the entire '420 patent, haven't you?

10   A.  I've read the entire '420 patent, it's a lengthy patent,

11   yes.

12   Q.  All 27 columns and specifications?

13   A.  Just one second.  I don't remember the number of columns.

14   Actually, yes, if you include the figures, yes.

15   Q.  Right.  And you read all the tables and all the figures,

16   right?

17   A.  In that case the answer is 27.  The -- it was 26 without

18   the figures there.

19   Q.  Okay.  And would it surprise you that there is somewhere

20   between 16 and 17,000 words in that specification?

21   A.  I never thought about it, but if you tell me that there

22   is 16 to 17,000, I don't see a reason to doubt it.

23   Q.  Okay.

24   A.  Are you telling me that?

25   Q.  That is all I asked you, whether you would be surprised?
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Frieder, O. - Cross cont'd   722

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 1   A.   No, it wouldn't surprise me, no, it would not.
 2   Q.   Okay.  And do you know how many times the word
 3   "advertisement" comes up?
 4   A.   I didn't count.  No, I don't know.
 5             THE COURT:  Wait a minute.  Now, you are not going
 6   to testify.
 7   BY MR. NELSON:
 8   Q.   So you don't know?  You didn't look for that?
 9   A.   The invention -- I needed to study the patent to
10   understand the invention.  I studied it in great length.  I
11   know what's in the patent.  I don't count words in the
12   patent.  I basically understood very diligently what the
13   claims meant.  In my view, the claims define the invention.
14   I need to make sure that I understood what the invention was.
15   And, no, I did not count how many times any word appeared in
16   the patent.
17   Q.   Okay.  So let's look at column 10, line 55 of the patent.
18   This is the '420 patent, which you have at Tab 2.
19   A.   You are going to increase it so it is easier to see.  I
20   will look at yours.  This is column 10?
21   Q.   Right.
22   A.   Let me just get it so I have a generality in front of me.
23   I'll use yours since it is easier to read than this font.
24   Yeah, I'm ready.
25   Q.   Okay.  So at the bottom of that column, beginning at
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Frieder, O. - Cross cont'd   723

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 1   about line 63 -- and just so we are clear, when I say --
 2   there is little line numbers on the patent, right?  You know
 3   what I'm talking about?
 4   A.  I know what you are talking about.
 5   Q.  If we look here on the patent, says 60, 65, they put it
 6   in there to make it easier to find what you're looking for;
 7   is that right?
 8   A.  That's true.
 9   Q.  So we start there at about line 63, it says,
10   "Furthermore, grouping selected ones (step 170) of the users
11   into a preference cohort, responsive to the preselected
12   consumer preference criteria, can facilitate providing a
13   targeted informon (step 175) such as an advertisement, to the
14   preference cohort."  You see that?
15   A.  Yeah.  You highlighted it on the screen.
16   Q.  Have you reviewed this part of the patent before?
17   A.  I reviewed the entire patent before.
18   Q.  Okay.  Are you aware of whether the word "advertisement"
19   appears in the patent anywhere but right here?
20   A.  I just answered you.  I don't know how many times any
21   word appears in the patent.  I didn't count.
22             THE COURT:  Asked and answered.
23   BY MR. NELSON:
24   Q.  So none of the claims at issue involve preference
25   cohorts, do they?
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Frieder, O. - Cross cont'd   724

1   A.   Not that I know, no.

2   Q.   Right. And none of the asserted claims concern

3   preselected consumer preference criteria; is that right?

4   MR. CIMINO: Objection, Your Honor. We are talking

5   about claims that aren't asserted in the case again.

6   MR. NELSON: I said one of the asserted claims.

7   MR. CIMINO: We are talking about something besides

8   the asserted claims.

9   THE COURT: Objection overruled.

10   THE WITNESS: Between your discussion, I lost the

11 question. Could you repeat it?

12 BY MR. NELSON:

13 Q.   Let me state it this way. Do any of the asserted claims

14 concern preselected consumer preference criteria?

15 A.   No, not -- not that I know of, no.

16 Q.   So on your direct examination you recall discussing

17 Figure 6?

18 A.   That, yes. I clearly recall that, it was a lengthy

19 discussion, Figure 6.

20 Q.   And you, I think you call it the heart and soul of the

21 patent?

22 A.   That sounds like a vocabulary I would use. I don't

23 recall if the word I used, but it sounds like my type of

24 speech, yes.

25 Q.   And you provided a report in this case, right?

Frieder, O. - Cross cont'd   725

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 1   A.  I provided actually three reports in this case.

 2   Q.  And you understood that it was your obligation to put all

 3   of your opinions in prose in your report?

 4   A.  I understood that I was supposed to make sure that my

 5   opinion was stated.  I write lots of papers, and I cite lots

 6   of things, but I just assumed that needs to be able to

 7   provide what my opinions are going to be.

 8   Q.  Right.  And you understood that your supposed to provide

 9   all the basis for the opinion, in other words, things that

10   were important to your opinions, right?

11         MR. CIMINO:  Objection, Your Honor, beyond the scope

12   of direct.  He testified about Figure 6.  He can ask him

13   about Figure 6.

14         THE COURT:  Objection overruled.

15   I assume you are coming to a question about Figure 6?

16         MR. NELSON:  Yes.

17         THE COURT:  All right.

18         THE WITNESS:  So what is your question?

19   BY MR. NELSON:

20   Q.  Well, can you answer the previous one?

21   A.  Oh, you asked me if I assumed that I had to give the

22   references?

23   Q.  No.  Provide the basis, the things that you thought were

24   important to support your opinion?

25   A.  Yeah.  If I'm going to give an opinion, I usually back it
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Frieder, O. - Cross cont'd   726

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 1   up with facts.  I always back it up with facts or citations

 2   to them.

 3   Q.  You never reproduced Figure 6 in your expert report, did

 4   you, in any of your three expert reports?

 5            MR. CIMINO:  Objection, Your Honor.  Question is

 6   misleading.  If he's looking for the actual figure, there is

 7   a cite to the patent he talks about.

 8            MR. NELSON:  Judge, these are not objections.

 9            THE COURT:  Well, objection overruled.  We are

10   not -- we are going to be very straightforward.  He never

11   reproduced Figure 6, did he?

12            MR. NELSON:  That --

13            THE COURT:  Did he reference Figure 6?

14   BY MR. NELSON:

15   Q.  The words "Figure 6" never appear in there.  What you did

16   was cited a section of -- in a footnote, right, cited in a

17   footnote some section of the patent that mentioned Figure 6,

18   correct?

19   A.  I relied on Figure 6.  I relied on a lot of parts of the

20   patent.  I am sure that there is somewhere that Figure 6 is

21   cited.

22            THE COURT:  Did you direct counsel to Figure 6 in

23   your opinion?

24            THE WITNESS:  Yes.

25            THE COURT:  Okay.  Break, 15 minutes.
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Frieder, O. - Redirect   727

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 1              MR. NELSON:  All right.  Thank you, Your Honor.
 2              (Recess from 3:49 p.m. to 4:10 p.m.)
 3              THE COURT:  You may be seated.  Let the record
 4   reflect all jurors are present.  Counsel agree?
 5              MR. CIMINO:  Yes, Your Honor.
 6              MR. NELSON:  Yes, Your Honor.
 7              THE COURT:  All right, Mr. Nelson, you may resume
 8   your cross-examination.
 9              MR. NELSON:  All right.  I have nothing further,
10   Your Honor.
11              THE COURT:  Oh, okay.
12              MR. NELSON:  You want me to?
13              THE COURT:  Redirect?
14              MR. CIMINO:  Yes, Your Honor, very brief.
15                       REDIRECT EXAMINATION
16   BY MR. CIMINO:
17   Q.  Good afternoon, Dr. Frieder.
18   A.  Good afternoon.
19   Q.  In the beginning of your cross-examination, Mr. Nelson
20   showed some documents on quality score?
21   A.  Yes.
22   Q.  Do you recall that?  And do you recall that quality score
23   refers to several things at Google?
24   A.  Yes, I do.
25   Q.  I think Mr. Nelson established that one of them is the
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Frieder, O. - Redirect   728

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 1   advertiser's front-end one through ten quality score?
 2   A.  Yes, he did.
 3           MR. NELSON:  Objection, he is leading, Your Honor.
 4           THE COURT:  Objection sustained.  You can rephrase
 5   it.
 6           MR. CIMINO:  Yes, Your Honor.
 7   BY MR. CIMINO:
 8   Q.  What else does quality score refer to at Google?
 9   A.  What does quality score refer to?  It refers to the pCTR,
10   quality score, it refers to basically what Mr. Nelson was
11   talking about.
12   Q.  Can we put up on the screen the documents Mr. Nelson
13   showed you, PX-338.  This is the front page.  Can you go to
14   Page 3?  I'd like to show you a passage that Mr. Nelson
15   didn't have in front of you.  You see the section where
16   it says how quality score affects you?
17   A.  It is in the middle of the page, yeah.
18   Q.  Yes.  The second sentence under that reads, "The quality
19   score is then used in several different ways affecting the
20   following things in your account."  Can you read the first
21   bullet point underneath that sentence?
22   A.  "Add auction eligibility.  Higher quality score makes it
23   easier and cheaper for a keyword to enter the ad auction."
24   Q.  What does ad auction eligibility mean?
25   A.  That means it is basically used in filtration, to make
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Frieder, O. - Redirect   729

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 1  sure that you actually have a high enough score to actually
 2  make it into the auction.
 3  Q.  Is that the quality score one through ten or is that
 4  something different?
 5  A.  That is a quality score that another name for pCTR,
 6  predicted click-through rate, sorry.
 7  Q.  I'd actually like to show you one of the summary of the
 8  opinion slides you had up about this, PDX-059.  Is this the
 9  same passage that you just read?
10  A.  Yes, it is.
11  Q.  From PX-338?
12  A.  Yes, it is.
13  Q.  And you have -- can you explain what you have highlighted
14  here and how that would relate to either quality score for
15  predicted click through rate or the quality score one through
16  ten for the advertisers?
17  A.  Well, what it is, is basically how it affects you.  The
18  highlighted portions said, "Ad auction eligibility:  Higher
19  quality scores makes it easier and cheaper for keyword to
20  enter the ad."  What this basically is basically the quality
21  score for the pCTR, and your keyword stops at page bid
22  estimate.  A higher quality score leads to a lower top of
23  page bid estimates.  That means easier for you to bid.
24  Q.  Thank you.  The next document, or one of the other
25  documents he showed you was PX-51, the same points without
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Frieder, O. - Redirect   730

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1    the advertiser's quality score.  Can we turn to 313110 of

2    PX-51.  Can we enlarge on the overview summary.  Can you

3    explain to the jury what quality score is being used for in

4    this diagram?

5    A.   There is no question what quality score is being used for

6    in this diagram.  You have the entry of the keyword creative

7    and query to the click-through rate, and then you've got

8    other relevance factors that are put into the quality score.

9    But the real thing you need to focus on, it's got

10   eligibility.  That quality score is being used for

11   eligibility.  It is being used for filtration.  There is no

12   doubt what this quality score is doing.  This is definitely

13   used for filtration.

14   Q.   And what about top slot?  What does that mean?

15   A.   Top slot is another -- this is another name for

16   promotion.  You cannot -- you cannot be in the top slot

17   unless you're sufficiently good enough and -- sorry,

18   sufficiently ranked, sufficiently score high enough, this is

19   good enough, and that is the quality score that is used for

20   it.

21   Q.   That context, what quality score is this document

22   referring to?

23   A.   There is no doubt this quality score is referring to the

24   pCTR version of it.

25   Q.   Okay.  Now, pull up one of the other documents Mr. Nelson
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JODY A. STEWART, Official Court Reporter

Frieder, O. - Redirect   731

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 1   showed you, like to show you another portion of that, pull on

 2   the screen Plaintiff's Exhibit 357.  That was at Tab 15.  Can

 3   we focus in on the bottom portion here.  Can you read that

 4   title?

 5   A.   "Quality score impact # 3:  Eligibility to show."

 6   Q.   Again, what does eligibility mean here?

 7   A.   Eligibility means it's good enough, it's filtering.

 8   Q.   So which quality score is this document referring to?

 9   A.   This is the quality score that is for the pCTR.

10   Q.   Can we pull up Plaintiff's Exhibit 112, another document

11   Mr. Nelson showed you.  Can you highlight the second to

12   bottom paragraph.  Let's see here.  Middle of the way through

13   the paragraph, Dr. Frieder, it says, "It also partly

14   determines if a keyword is eligible to enter the ad auction

15   that occurs when a user enters a search query, and, if it is,

16   how high the ad will be ranked."  If you look up you can see

17   that we are talking about quality score.

18         Does this provide context to allow you to determine

19   which quality score Google is referring to here?

20   A.   Yes, it does.

21   Q.   Which one?

22   A.   It's the pCTR value.  It's the predicted click-through

23   rate.  I don't like using acronyms.

24   Q.   So in Plaintiff's Exhibit 111, Mr. Nelson also showed you

25   but it's the same document, has the same paragraph.  You can
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Frieder, O. - Redirect   732

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 1   just verify that for us, is the same paragraph, the middle
 2   one?
 3   A.   Yeah, I just read it, yes.
 4   Q.   So which quality score is that paragraph referring to on
 5   Plaintiff's Exhibit 111?
 6   A.   The predicted click-through rate.
 7   Q.   Dr. Frieder, did you stop with the quality score
 8   documents?
 9   A.   As I mentioned many times, quality score documents are
10   just one part of my input.  But the reality is there were --
11   there were internal documents, there were the testimony,
12   there were additional external documents, there were
13   depositions, there was e-mails.  E-mails was not for the
14   quality score.  Sorry.  There were other items.  And there
15   is, of course, the pCTR computation of the template.
16   Q.   Does your analysis of source code confirm your
17   understanding of the quality score that's used for
18   eligibility?
19   A.   Yes.
20   Q.   Is it the advertiser's one to ten score?
21   A.   No.
22        MR. CIMINO:  Your Honor, I'd like to move PX-111
23   into evidence.
24        MR. NELSON:  If it's the complete document, I have
25   absolutely no objection to that, Your Honor.  I should have
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Frieder, O. - Redirect   733

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 1    done that myself.
 2              MR. CIMINO:  It is the complete document.
 3              THE COURT:  All right.  It will be admitted.
 4              (The document was received in evidence and marked as
 5    Plaintiff's Exhibit No. 111.)
 6              THE COURT:  While you're doing -- I'll take it up at
 7    the end of this witness.
 8              MR. NELSON:  Right, of course, subject to the
 9    objections we established, we offered before about the
10    Markman documents, Your Honor.
11              THE COURT:  All right.
12              MR. NELSON:  And the relevance, such.
13              THE COURT:  Okay.  Your objection is noted.
14    BY MR. CIMINO:
15    Q.  Can we put up PDX-115.  Dr. Frieder, do you recall being
16    asked about this slide?
17    A.  Yes.
18    Q.  This is a callout from PX-22.  Do you see that?
19    A.  Yes, it is.
20    Q.  And I believe you were asked with reference to the blue
21    highlighting, let's see, whether keyword -- the agreed -- the
22    keywords are not content.  I believe you answered yes.
23    A.  That is true.  Keywords are not content.
24    Q.  The phrase here says the relevance of the keyword to the
25    ad in the ad group?
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Frieder, O. - Redirect   734

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 1              MR. NELSON:  Objection, Your Honor.  He just

 2   established a question never asked about the other part of

 3   this, so this is probably something they should have covered

 4   during direct.

 5              THE COURT:  Your cross-examination is limited

 6   strictly to what he raised on cross-examination.  You can't

 7   introduce something that he didn't -- that you forgot or he

 8   didn't raise on cross.

 9              MR. CIMINO:  This was raised on cross, Your Honor.

10   I took careful notes.

11              THE COURT:  Did you question on this subject,

12   Mr. Nelson?

13              MR. NELSON:  What he just asked him is whether I

14   asked him whether keywords or content and he said no.  That

15   was it.  Now he is asking whether something else is, which he

16   just testified --

17              THE COURT:  Well, he can cross-examine on any

18   subject that you raised on direct examination.  He answered

19   no, I hope you are moving to something else.

20              MR. CIMINO:  Your Honor, we did talk about this line

21   on direct, and I believe the cross was fair, but the cross

22   was incomplete and misleading so I'm trying to allow Dr.

23   Frieder --

24              THE COURT:  You are permitted to do that as long as

25   it is on the subject that he is crossed on.
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Frieder, O. - Redirect   735

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 1            MR. CIMINO:  It is, Your Honor.
 2            THE COURT:  All right.  Then, objection overruled.
 3   BY MR. CIMINO:
 4   Q.  Dr. Frieder, do you believe that the relevance of the
 5   keyword to the ad is a content analysis?
 6   A.   There is no doubt the relevance of the keyword to the ad
 7   is content analysis.
 8   Q.  Can you explain why?
 9   A.   For there to be content analysis, you need to compare
10   something against, in this case, a keyword or a query against
11   an ad.  You can't -- it's not just having a keyword or not
12   just having an ad.  If you actually are doing a similarity
13   comparison or any comparison of the keyword or the query
14   against the actual ad, then you are actually doing a content
15   analysis.  This thing says the relevance of a keyword to the
16   ad, so basically this is a content.
17   Q.  Dr. Frieder, you were also asked some questions about
18   similar interests and information that Google keeps.
19   A.   That's correct.
20   Q.   I believe you testified that Google doesn't move users;
21   is that right?
22   A.   That's correct.
23   Q.  Do you know whether Google roots user's feedback in
24   accordance with the query?
25   A.   Yes, it does.
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Frieder, O. - Redirect   736

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 1   Q.  Can you explain how?
 2   A.  By storing in your query ad hoc, basically by using the
 3   information, the query is your representative, your interest
 4   or needs, so that is grouping the users.  So when you
 5   actually store, and also that is what they do in their log,
 6   the query and the ad, you actually are grouping things.
 7   Q.  And one more topic, Dr. Frieder.  He had some questions
 8   about whether the asserted claims in the patent covered
 9   advertisements.  Do you recall that?
10   A.  Yes.  Sorry.  I was waiting for the question.
11   Q.  See if I can find it.  Can we put up PX-1.  Does the
12   patent use the term "informon"?
13   A.  Yes, it does.
14   Q.  Can we pull up 2464 column 3, lines 30 to 35.  Down a
15   little further.  There we go.  And, Dr. Frieder, could you
16   read, this is the first sentence in this paragraph to the
17   jury, please.
18           MR. NELSON:  Your Honor, this is well beyond the
19   scope.  I never even asked about this.  This is something
20   Your Honor has defined anyway.
21           MR. CIMINO:  I'm sorry, Your Honor.
22           THE COURT:  Why does the Court have to keep going
23   over this?
24           MR. CIMINO:  Your Honor, on cross-examination,
25   counsel said that advertisement doesn't show up in any of the
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Frieder, O. - Redirect   737

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 1   claims.  But informon shows up in all the claims, and there

 2   has been testimony that an advertisement could be an

 3   informon, is directly related to the cross.

 4            THE COURT:  Hold on one second.  Well, I'll permit

 5   you to cross on the informon but then the jury is going to

 6   have to decide whether that is, in fact, the case, Mr.

 7   Cimino.  Continue.

 8   BY MR. CIMINO:

 9   Q.  Can you read that definition into the record?

10   A.  "As used herein, the term "informon" comprehends an

11   information entity of potential or actual interest to a

12   particular user."

13   Q.  Dr. Frieder, do you still have your Markman sheet or the

14   jury binder up in front of you?

15   A.  I hope so.  Yes.  I have the juror binder.

16   Q.  You see it has the Markman definition still in there?  It

17   is entitled, "Claim construction chart."

18   A.  Yes, I found it.  Actually in Tab 1.

19   Q.  I believe the jurors all have the same documents.

20   A.  I'm using their notebook.  What it says is juror

21   notebook.

22   Q.  You see the definition of informon?

23   A.  Yes, I do.

24   Q.  Can you read that definition?

25   A.  "Information entity of potential or actual interest to
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Frieder, O. - Redirect   738

1   the individual/first user."
2   Q.   So what you just read out of the patent; is that right?
3   A.   Yes, very similar.
4   Q.   You believe that an advertisement meets that definition
5   of informon?
6   A.   Oh, absolutely.
7   Q.   And is the term informon in every asserted claim of the
8   '420 patent?
9   A.   It is in every asserted claim of the '420 patent, yes.
10   MR. CIMINO: No further questions, Your Honor.
11   THE COURT: Step down.
12   Dr. Frieder, you're not excused. You are still
13   available if needed to be called back.
14   THE WITNESS: Okay. Thanks.
15   Can I leave the room?
16   THE COURT: You may stay here or leave the room.
17   (Witness excused.)
18   MR. BROTHERS: Your Honor, the Plaintiff I/P Engine
19   calls the next witness, Nicholas Fox, by videotape testimony.
20   This videotape testimony is 32 minutes long, which I think
21   almost matches to what we are going to do till 5 o'clock.
22   THE COURT: Just checking, Mr. Fox is nowhere in the
23   jurisdiction?
24   MR. BROTHERS: Not to my knowledge. He is a Google
25   vice president of product management, and he has not been on

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Fox, N. - Videotape   739

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 1   the role call list, and I'm not aware of him being anywhere

 2   in the jurisdiction.

 3              THE COURT:  He will not be here, Mr. Nelson?

 4              MR. NELSON:  No, he is not here, Your Honor.

 5              THE COURT:  Okay.  Then we will proceed.

 6              (Videotaped deposition of Nicholas Fox was played at

 7   this time.).

 8              MR. NELSON:  Your Honor, this was withdrawn.

 9              THE COURT:  He hasn't answered the question yet.

10              Counsel.

11              MR. BROTHERS:  Your Honor, I don't recall it.  We

12   can skip this.  We don't need this.

13              THE COURT:  Okay.

14              MR. BROTHERS:  This number.  Let's start up at --

15   can you take it off the screen.

16              THE COURT:  Objection sustained.  Skip down to the

17   next question.

18              MR. BROTHERS:  Just skipping down to the next.  It

19   is like two lines.

20              (Videotaped deposition of Nicholas Fox continuing.)

21              MR. NELSON:  Your Honor.

22              THE COURT:  Is there objection?

23              MR. NELSON:  There is an objection.  Can we come up?

24              THE COURT:  Is it one I've heard before?

25              MR. NELSON:  Is it one you heard before, it is one
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JODY A. STEWART, Official Court Reporter

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 1   you just sustained, Your Honor.

 2               THE COURT:  If I just sustained it, then what we are

 3   supposed to be doing is adjusting around that area.

 4               MR. NELSON:  But we didn't.

 5               MR. BROTHERS:  I thought we just did, Your Honor.

 6   We were going to the next question.

 7               THE COURT:  Well, I haven't heard an answer to the

 8   question.  So we must be adjusting around.  That is what you

 9   are asking, to move around the question.  Move sufficiently

10   around the question.

11               MR. BROTHERS:  This next question, we can proceed.

12               THE COURT:  Tell you what.  Here is the way you do

13   it.  You see the question on the screen, do you have an

14   objection to that question on the screen?

15               MR. NELSON:  No, Your Honor.

16               THE COURT:  Would that solve the problem?

17               MR. NELSON:  Yes, it does.

18               THE COURT:  Okay.

19               (Videotaped deposition of Nicholas Fox continuing.)

20               MR. BROTHERS:  Your Honor, that completes the

21   testimony of Mr. Fox by deposition.

22               We would move into evidence Exhibit 249, which is

23   the 2008 Google ad narrative, two-page document that Mr. Fox

24   was referencing.

25               For the Court's information, the other three
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741

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 1   documents referenced by Mr. Fox have already been admitted

 2   into evidence, and that's Plaintiff's Exhibit 229, a life of

 3   the dollar presentation, I believe has been admitted;

 4   Plaintiff's Exhibit 338, we heard a lot from the last witness

 5   that the quality score document, I believe that's been

 6   admitted; and Plaintiff's Exhibit 232 is the AdWords help

 7   document that's already been admitted, at least according to

 8   my records.  So we would move 249 into evidence.

 9             THE COURT:  Any objection to 249?

10             MR. NELSON:  I don't think -- isn't that the only

11   one I'm being asked about?  The other ones I think are

12   already in, right?

13             THE COURT:  He said the other ones are in, 249.

14             MR. NELSON:  Okay.  That is fine.

15             (The document was received in evidence and marked as

16   Plaintiff's Exhibit No. 249.)

17             THE COURT:  Okay.  Ladies and gentlemen, this is

18   going to conclude business for today.  We will come back and

19   we will start tomorrow morning at 9:30, at 9:30, we will

20   start.  Please turn in your papers.  Do not discuss the case,

21   and we will see you tomorrow morning at 9:30.

22             All rise.

23             (Hearing adjourned at 5:05 p.m.)

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1   CERTIFICATION

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3   I certify that the foregoing is a correct transcript

4   from the record of proceedings in the above-entitled matter.

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7   X_____/s/_____x

8   Jody A. Stewart

9   X____10-22-2012_____x

10   Date

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JODY A. STEWART, Official Court Reporter