## **EXHIBIT 35**

UNITED STATES DISTRICT COURT

EASTERN DISTRICT OF VIRGINIA

NORFOLK DIVISION

\_\_\_\_\_

I/P ENGINE, INC.,

Plaintiff,

V

Civil Action No.:

2:11-cv-512

GOOGLE INC.,

Defendant.

CONFIDENTIAL - ATTORNEYS' EYES ONLY

Videotaped 30(b)(6) Deposition

of

JAIME G. CARBONELL, Ph.D.

Washington, D.C.

Friday, September 21, 2012

9:04 a.m.

Reported by: Amy E. Sikora, RPR, CRR, CSR-NY, CLR

Job No. CS1338951

- A. Excuse me a second.
- Q. No. No problem.
- <sup>3</sup> A. Sorry. Go on.
- Q. Okay. So then, the next sentence of column 14 says, "Alternatively, a human editor could assign scores according to judgments made by such editor."
- Do you see that?
- A. That's right.
- Q. So that sentence follows the sentence that we just read that said, "For example, the scores can be initially set to correspond with the frequency of the term occurrence in the article"; correct?
- A. Correct.
- Q. Okay. So then, do you understand that
  "Alternatively, a human editor could assign
  scores according to judgments made by such
  editor" refers to, among other things, the key
  term scores?
- MR. JACOBS: Objection as to form.
- Calls for speculation.
- A. I cannot tell if to which scores they refer to. It could refer to the key term
- scores. It could refer to scores assigned to

- $^{
  m 1}$  other terms selected by an editor.
- Q. Okay.
- A. Editors typically exercise their editorial capacity.
- Q. Understood. Okay. So let's just -let's take an example where the editor can assign
  initial values to the key term scores; okay?
- A. Uh-huh.
- <sup>9</sup> Q. And you agree that the key term scores <sup>10</sup> are derived from terms that appear in the <sup>11</sup> articles; correct?
- MR. JACOBS: Objection.
- 13 Q. Or the key terms are -- are derived
  14 from terms that appear in the articles; correct?
- A. That's what that paragraph says.
- Q. Okay. So let's go back to your example in paragraph -- or excuse me, in footnote 5, to paragraph 106 of your report.
- <sup>19</sup> A. Yes.
- Q. You used an example of an item that
  was clicked on a thousand times in response to a
  query involving a particular key term; correct?
- <sup>23</sup> A. Yes.
- Q. And that key term was initialized with a value of one; right?

- A. Correct.
- Q. So what you're saying as well, after a
- thousand clicks, that key term value will be
- 1,001?
- A. That's right.
- Q. 1/10th of one percent of that value
- would be in response to the initial content-based
- initialization; correct?
- A. Correct.
- Q. And the rest of it you say would be
- based on collaborative feedback data; correct?
- A. Correct.
- Q. So now, let's take an example where
- the editor initialized that key term to a
- thousand, to have a value of a thousand; okay?
- A. Okay.
- Q. Okay. So there that initialization of
- the key term to a value of a thousand would be a
- content-based initialization; correct?
- A. If the editor assigned a value of a
- thousand and if it was a key term that was
- contained inside the article.
- Q. Right. Then it would be a
- content-based initialization; correct?
- A. With the two provisos I just gave,

- yes.
- Q. Okay. So then, in the same example,
- if that article then was clicked a thousand times
- in response to a query that contained that -- the
- same key term, the value would be a thousand plus
- a thousand; correct?
- A. If you were to modify the example in
- 8 that particular way. One could modify the
- example in other ways as well.
- Q. No. Understood. But that's -- based
- upon this reading of column 14 of Culliss, that's
- a fair modification of the example; correct?
- MR. JACOBS: Objection as to form.
- 14 A. In the -- in that case, the initial
- usage, the content would dominate, and there
- would be no significant effect from the
- popularity part.
- Q. Right. But after a thousand clicks,
- the popularity portion, what you're calling the
- collaborative feedback, would be 50 percent of
- the value, and the content-based would be
- 50 percent of the value; correct?
- A. At that -- at that point in time. At
- the earlier point, the content would dominate.
- To follow through with your example,

- A. Yeah.
- Q. Okay.
- A. That's why I can't agree when you say
- he does it one specific way. I don't -- I don't
- 5 know.
- <sup>6</sup> Q. Okay. Understood.
- So now, let's go back to your report,
- which we've marked as Exhibit 1, and look at
- paragraph 108. There you say, "Third, Culliss
- does not disclose filtering each informon for
- relevance to the query or filtering the combined
- information for relevance to at least one of the
- query and the first user."
- Do you see that?
- A. I see that.
- Q. And then further down, you say that --
- and I'm paraphrasing here because I don't want to
- just read the whole thing -- that Culliss
- discloses ranking, but not filtering; correct?
- A. That's correct.
- Q. Okay. So can you explain to me what
- you mean by the difference between ranking and
- filtering?
- A. Yes.
- Q. Please do.

- A. Ranking is putting a set of elements,
- whether they be documents or other items, in
- order. That order would typically be derived
- from a score, a relevant score. It can be a
- 5 popularity score. It can be based on other
- <sup>6</sup> criteria.
- So ranking is -- is essentially you
- 8 start with a set, and you end up with an ordered
- 9 set. Same set in order.
- Filtering is the process where you
- examine elements of a set one at a time, and you
- determine whether or not they qualify according
- to some filtering criterion.
- Then that set is divided into two
- sets, one of which is the filtered or accepted
- set, one of which is the rejected or filtered out
- $^{17}$  set.
- Q. So let me have an example. If you
- have a -- a criterion that says, I want to review
- the top 10 something, then you rank whatever the
- candidates are, and you display the top 10, is
- that ranking or is that filtering?
- A. That is ranking.
- Q. Okay. Even though you used a
- criterion to decide which ones were going to be

- displayed and which ones were not going to be displayed; correct?
- A. That -- that criterion is not based on -- it's not an absolute criterion. It is not based on -- it is based on relative properties of the members of the set where they -- where they belong in the ranking.
  - Q. So you think that in order for something to be filtering, it has to -- there has to be a decision being made concerning only the properties of that individual member of the set?
- A. Right. Say yea or nay, depending on those properties.
  - Q. So if you're including some decision concern -- some criteria concerning properties of other members of the set in your decision to say yea or nay, then you're not filtering?
- A. If you're comparing this one to the other members of the set in your -- in your criteria, these comparative criterion, then you're not filtering. Bowman calls that subsetting.
  - Q. What -- what was that last part?
- A. There are -- one of the other references uses a different term for it.

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- $^{1}$  your index, along with the key terms, a rating
- label; correct?
- <sup>3</sup> A. You can include a rating label, yes.
- $^4$  It could be in the index.
- <sup>5</sup> Q. Okay. So then it goes -- the Culliss
- reference goes on to say, "The rating key term is
- onsidered appropriate for all ages while the
- <sup>8</sup> rating key term X rated is considered appropriate
- only for adults."
- Do you see that?
- A. Where does he say that? There it is.
- 12 I found it.
- Q. It's like line 12, maybe.
- A. Yes, I see that.
- 15 Q. Then at line 15 it says, "The articles
- are initially associated with one or more of
- these key terms by any possible manner, such as
- by human judgment or default association."
- Do you see that?
- A. I see that.
- Q. So do you understand a human could
- initially decide this is G-rated content or this
- is X-rated content in the article?
- A. Yes.
- Q. Okay. And then if we go down a little

- $^{1}$  bit further about line 23, which is the next
- paragraph there in column 11. It says, "Moreover
- the rating key terms can be incorporated into the
- index of key terms and included in the
- <sup>5</sup> association of the comparison score and, if used,
- the key term probability score."
  - Do you see that?
- $^{8}$  A. I see that.
- 9 Q. So the -- the rating can be an
- additional value in the key term index; correct?
- A. Yes.
- Q. And then in the example that's
- provided here, if we go down about line 39, it
- says, "The invention operating separately from or
- in addition to the manner described above would
- permit or require the user to enter a rating key
- term in the search query."
- Do you see that?
- A. I see that.
- Q. So there you understand that you could
- have an example where you put in key terms alpha
- and gamma, and in addition you say, I want G
- rated; right?
- A. You would -- not exactly, but close to
- what you said. You would provide three key terms

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  m 1}$  in the query: Alpha, gamma, G or G rated.
- Q. Okay. And -- and we talked about
- earlier, alpha and gamma can be associated with
- words that are in the article; correct?
- A. Yes, they can be.
- <sup>6</sup> Q. So then, the next sentence there,
- beginning about line 41, says, "The invention
- 8 would operate in a similar manner for the rating
- <sup>9</sup> key terms as described above for the key terms
- alone, whereby the search activity of the user
- would alter the key term scores and key term
- total scores for the rating key terms."
- Do you see that?
- A. I see that.
- Q. So, in other words, users -- you'd
- have a key term score associated with the rating
- that's initialized at some particular value;
- 18 right?
- A. Yes. It seems to be once here.
- Q. Yeah. In the example that's shown,
- for example, in the index, you know, surrounding
- line 35 of column 11, they're initialized to the
- values of one; correct?
- A. Yes.
- Q. And then continuing with the example,

- $^{1}$  one of the key terms that the user would enter in
- the query in this embodiment is to include a
- rating key term; correct?
  - A. You're referring to 47 through 55?
- 0. Correct.
- A. Yeah, that's what it says there.
- Q. And so that rating key term score

  would be altered by both whether an article is

  returned, as well as whether it's selected by the

  user as per the previous examples that we

  discussed; correct?
  - A. Yes. Under the embodiment where it keeps both scores with a slash notation as -- as exemplified here, that would be correct.
- 15 Okay. So then, if we look toward the 16 bottom of column 11, continuing onto the top of 17 column 12, it says, "In this manner," peo --"people looking for X-rated material will 19 identify and effectively label that material as X 20 rated. Such X-rated material can then be 21 screened entirely from the rating key term of G rated by precluding articles entirely from the 23 search results which have a key term probability 2.4 score or comparison score for the rating key term 25 X rated above a predetermined threshold."

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- Right, you see that?
- A. I see what it says here, yes.
- Q. So in what's described there, the -
  the rating key term will be evaluated for each

  article individually; correct?
- A. It -- he's talking about putting in the ratings as -- in the same way you would put other data associated with the -- with the article such as key terms.
- 10 Q. Understood. But here in the part that
  11 I just read at the bottom of column 11, the
  12 rating key term for each of the articles is
  13 evaluated to determine whether the article will
  14 be displayed independently of any of the other
  15 articles in the set; correct?
  - A. It doesn't say that it's evaluated with respect to whether the article will be displayed.
- looking for X-rated material will identify and effectively label that material as X" -- "as X rated. Such X-rated material can then be screened entirely from the rating key term of G rated by precluding articles entirely from the search results which have a key term probability

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- score or comparison score for the rating key term
- 2 X rated above a predetermined threshold"; right?
- $\mathsf{A}.$  That's what it says.

results?

- Q. So isn't that saying that the rating key term score will be evaluated independently for each article to determine whether that article will be screened entirely from the search
- Α. The -- the X rated or the G-rated key 10 term will have a score, and then that score can 11 be modified over time, depending on the feedback 12 from the user and the key term probability score 13 or comparison score above a predetermined threshold, and then that -- that key term, then, 15 can be used as -- as a factor or criterion in 16 determining what to show or what to -- what to --17 not to show, it doesn't say show. What does he
  - Q. Right. And if we look -- let's just look further. Maybe we can shed a little bit more light on this in the example.

say? From the search results.

22 Continuing in column 12, about line 6, 23 it says, "For example, suppose article A3 24 contained adult content, and articles A1 and A2 25 contained not adult content, which would not be

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- Do you see that?
- A. I see that.
- Q. So where is it that you believe that that has to be a content-based query?
  - A. It's implicit on the third limitation content-based filter system for combining the information from the feedback system and the information from the scanning system. If the feedback system being the the popularity or user-based replies, and so, therefore, if that needs to be combined with something different, that leads to the implication of the scanning system would be the content based.
    - Q. But the -- the last element of content-based filter system, that's a separate element from the scanning system, you agree?
  - A. The content-based filter system is different from the scanning system.
- Q. Right. And, in fact, the
  content-based filter system receives an input
  from the scanning system; correct?
- A. Right. And receives an input from the -- the -- what is it called? The feedback system.

- Q. Right. So it receives inputs from
- both of those systems?
- $^3$  A. That's right.
- Q. So let's look back at the claim 1 of
- $^{5}$  the '420 patent for a minute.
- A. Okay.
- $^{7}$  Q. So if you look at -- keep your report
- open to that page 24 where you were just reading.
- <sup>9</sup> A. Yes.
- Q. So element A says, "A system for
- scanning a network to make a demand search for
- informons relevant to a query from an individual
- user."
- Do you see that?
- A. I see that.
- Q. So if you look at paragraph 102, and I
- think we covered this earlier, you don't offer an
- opinion in your report that the element I just
- read is absent from Culliss; correct?
- A. Right.
- Q. Okay. But then if we look at the
- first element of claim 1, for example, the '664
- patent, it reads, "A scanning system for
- searching for information relevant to a query
- associated with the first user in a plurality of

- users"; correct?
- A. Right.
- Q. And in particular, you say the aspect
  of that element that requires searching for
  information relevant to a query associated with a
- user is absent from the Culliss reference?
- A. Only to the extent that that is interpreted to mean that that is a content-based search.
- Q. So then going back to claim—— the
  first element of claim 10 of the '420 patent, you
  don't interpret that element, "A system for
  scanning a network to make a demand search," as
  requiring a content-based search; right?
  - A. Not necessarily, because there is another element that talks about the content -- content-based filter system receiving the information. So the content-based component could be interpreted to be contained within this second element.
- Q. Okay. Well, in the '664 patent, the third element has a content-based filter system; correct?
- 24 A. Yes.
- Q. But you don't think in the '664 patent

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- $^{1}$  that the content-based aspect can be found in the
- third element?
- A. Well, to the degree that that is found
- in the third element, that would suffice. To the
- $^{5}$  degree that the -- that the searching
- 6 content-based filtering.
- Okay. So let's go to the Culliss
- reference now, which we marked as Exhibit 4, and
- 9 sticking on this searching for information
- relevant to a query associated with the first
- user.
- A. Right.
- Q. Can you look at figure 1 of the
- 14 Culliss reference?
- A. Yes.
- Q. So box 10 says, "Receive first search
- query from first user and identify related
- 18 articles."
- And box 20 says, "Present articles
- related to first search query to a first user."
- Do you see that?
- A. Yes.
- Q. So you don't think that those boxes
- from figure 1 describe searching for information
- relevant to a query associated with the first --

- terms; correct? Because the claim has queries
- specifying each of the terms of the query to
- produce a ranking value for the item?
- A. That's right. It could also specify
- other terms. Basically, I'm agreeing with you.
- I'm just -- just -- clarifying.
- Q. Yeah, yeah. Okay. I think we're on
- 8 the same page. So let's -- and maybe I can go --
- A. Okay.
- Q. -- back and explore something else and
- make sure of that. So if you look at claim 22,
- you have the first two steps which are basically
- identical to the first two steps we read in 28;
- right?
- 15 A. It's a method claim, but yes.
- Q. Right. But the steps themselves are
- $^{17}$  the same?
- A. Right.
- Q. Okay. So then that last element says,
- "For a plurality of items identified in the query
- result, combining ratings of frequencies with
- which users select the item in earlier queries
- specifying one or more terms of the query" --
- A. Right.
- Q. -- "to produce a ranking value for the

- item."
- Do you see that?
- A. I see that.
- Q. So in claim 28, we're talking about
- $^{5}$  each of the terms in the query, whereas in 22
- it's one or more; correct?
- A. In 22, it's one or more. Let me
- 8 reread 28.
- <sup>9</sup> I believe you are right.
- Q. Yeah. So let's just take an example.
- 11 If somebody put in the query "lightweight running
- shoes"?
- A. Light weight, one word or two words?
- Q. Let's just say it's one.
- A. And running shoes, two words.
- Q. Correct. Lightweight running shoes.
- So then under claim 28, in order to
- get this ranking score, I would go back and sum
- the item scores for queries that also included at
- least those three terms: Lightweight, running,
- and shoes; correct?
- A. I believe that's the right reading.
- Let me read it again because this is a little
- confusing.
- Yeah. It says "satisfying" -- sorry,

- "to select an item in earlier queries," specify,
- not satisfying, "specifying each of the terms on
- the query to produce a ranking value."
- Yes. So that would be -- be all the
- <sup>5</sup> terms.
- Okay. So it would be all the terms.
- <sup>7</sup> But you -- you could have a situation where the
- subsequent term, just sticking with the example,
- 9 would be like blue lightweight running shoes?
- A. Right.
- 11 Q. But you would still go back and look
- at queries for the item scores associated with
- queries that ran at least the terms
- "lightweight," "running," "shoes"?
- A. Correct.
- Okay. So now let's look at claim 29.
- A. Uh-huh.
- Q. So claim 29 is dependent from
- claim 28; right?
- <sup>20</sup> A. Yes.
- Q. So I think we covered this earlier.
- It includes all the limitations of 28, plus
- what's added in claim 29; right? Do you agree?
- A. That's what a dependent claim means,
- $^{25}$  yes.

- Q. Okay. So then claim 29 says, "The computer readable medium of claim 28 wherein the contents of the computer readable medium further cause the computer system to perform the step of adjusting the ranking value produced for each item identified in the query result to reflect the number of terms specified by the query that are matched by the item."
- Do you see that?
- A. I see that.
- Q. Okay. So you agree that the system of claim that's in claim 29 has to be covered by claim 28 as well; right?
  - A. It has to be covered by -- it's an additional limitation on top of page 28, yes.
- Q. Right. So anything that would fall within claim 29 also has to fall within claim 28; right?
- <sup>19</sup> A. Yes.
- Q. Okay. So the way I understood your -the discussion earlier concerning your
  understanding of Bowman is that the summing of
  the ranking scores is always a function of the
  items that are in the index table; correct?
  - A. In the rating table, correct?

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  m l}$  patent that we marked as Exhibit 3.
- <sup>2</sup> A. Okay.
- Q. And in claim 1, I think the element
  you're referring to there is "a scanning system
  for searching for information relevant to a query
  associated with the first user in a plurality of
  users."
- Do you see that?
- <sup>9</sup> A. I see that.
- Q. Now, let's pull up the '6 -- or, excuse me, the '420 patent again.
- MR. NELSON: And that one, just for the record, we marked as Exhibit 2 to your deposition.
- A. I have it.
- Q. That first element in claim 10, again,
  is "a system for scanning a network to make a
  demand search for informons relevant to a query
  from an individual user."
- Do you see that?
- A. I see that.
- Q. Now, if you look back to paragraph 78 of your report, also there on page 17, you don't offer an opinion in your report that the first element of claim 10 is absent from the Bowman

- 1 reference; correct?
- A. Correct.

analysis?

- Q. Okay. So does the difference between your opinion on the first element of claim 1, for example, the '664 patent, go back to what we talked about earlier with respect to the Cullis reference, is dependent upon an interpretation that that first element of claim 1 of the '664 patent requires some kind of content-based
- 11 A. That's correct. Yeah, to the degree
  12 that it requires content-based analysis, that
  13 belongs there. To the degree that it doesn't,
  14 then it's -- I'm not objecting to it.
- 15 Okay. So then the next element that 16 you have listed in paragraph 80 that you believe is absent from the Bowman reference with respect 17 to the asserted claims of the '664 patent is 19 "combining the information from the feedback 20 system with the information from the scanning 21 system and filtering the combined information for relevance to at least one of the query and the 23 first user."
- Do you see that?
- A. Yes.

- Q. And then you list the corresponding
- element right after that from claim 26 of the
- '664 patent; correct?
- A. Right. Which I believe is a method
- <sup>5</sup> equivalent to that claim.
- 6 Q. Agreed. So is your opinion that the
- element from the '664 patent that we just
- identified from paragraph 80 of your report is
- absent because you don't believe that Bowman does
- filtering or content-based analysis?
- 11 A. That's correct. That's for the same
- reasons that we just discussed for the '420.
- Q. Okay. Okay. Let's put that one aside
- for -- well, let's just hopefully just put it
- $^{15}$  aside.
- A. You mean, Bowman aside?
- Q. Yeah.
- Okay. So let's turn to your report,
- which we've marked as Exhibit 1. And
- particularly on page 32, I want to start there.
- A. Under the obviousness, yes.
- O. Yeah. Under the obvious -- I think
- the obviousness starts on page 31 under Roman
- numeral heading XIV; correct?
- A. Oh, yes. You're right.