EXHIBIT H

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

PERSONALIZED USER MODEL, L.L.P.,	)	
	)	C.A. No. 09-525 (LPS)
Plaintiff,	)	
	)	
v.	)	
	)	
GOOGLE, INC.,	)	
	)	
Defendant.	)	
	)	
	)	

PERSONALIZED USER MODEL, L.L.P.'S SUPPLEMENTAL RESPONSES TO GOOGLE INC.'S FIRST SET OF REQUESTS FOR ADMISSION (NOS. 1-33)

Plaintiff Personalized user Model, L.L.P. ("PUM" or "Plaintiff"), by and through its undersigned attorneys, provides the following supplemental objections and responses to the Defendant's First Set of Requests For Admission, including the definitions and instructions (collectively, the "Admission Requests"):

GENERAL OBJECTIONS TO ADMISSIONS REQUESTS

The objections and statements set forth in this section apply to each of the Admission Requests and are not necessarily repeated in response to each individual Admission Request. The assertion of the same, similar, or additional objections in Plaintiff's specific objections to individual Admission Requests or the failure to assert any additional objection to an Admission Request does not waive any of the objections set forth in this section or the following sections.

1. Plaintiff objects to the Admission Requests to the extent they seek to impose obligations on Plaintiff that exceed the scope of discovery under the applicable discovery rules or other applicable rules of the Court. Plaintiff will not comply with any such non-conforming Admission Requests, definitions, or instructions.

2. Plaintiff objects to the Admission Requests to the extent they seek information or documents not in the possession, custody, or control of the Plaintiff. To the extent that the Admission Requests seek information and/or documents in the possession, custody, or control of persons and/or entities other than Plaintiff, Plaintiff responds to the Admission Requests only on behalf of itself.

3. Plaintiff objects to the Admission Requests to the extent they seek speculation about the actions or knowledge of Defendant or other parties, rather than Plaintiff.

4. Plaintiff objects to the Admission Requests to the extent they are unlimited in time or otherwise not limited to a time frame relevant to this litigation.

5. Plaintiff objects to the Admission Requests to the extent they seek information and/or documents which are (a) in the possession, custody, and/or control of the Defendant, (b) obtainable with equal or greater facility by Defendant, and/or (c) publicly available, including without limitation, court filings and documents filed by the parties in this litigation.

6. Plaintiff objects to the Admission Requests to the extent they are overly broad, unduly burdensome, improperly invasive, oppressive and/or seeks information that is neither relevant to the claims and defenses in this litigation, nor reasonably calculated to lead to the discovery of admissible evidence.

7. Plaintiff objects to the Admission Requests to the extent they are vague, indefinite, ambiguous, incomprehensible, lack a readily discernable meaning, contains terms that are undefined, require Plaintiff to speculate as to the information being sought in response, and/or use terms that are argumentative. Without waiving these objections, where necessary, Plaintiffs has made reasonable interpretations and respond according to such interpretations. Such responses cannot properly be used as evidence except in the context in which Plaintiff understood the Admission Requests and/or terms used therein.

8. Plaintiff objects to any definitions to the extent they are overly broad, unduly burdensome, vague, and ambiguous, and seek information about and from any party that is unlikely to produce information relevant to this proceeding.

9. Plaintiff objects to the Admission Requests to the extent that it may be construed as calling for information or documents that are subject to a claim of privilege or other protective doctrine, including, without limitation, the attorney-client privilege, the work-product doctrine, the anticipation-of-litigation doctrine, and the self-evaluation or critical-analysis privilege, or any other applicable privilege, rule of confidentiality, protection or restriction recognized by Delaware or other applicable law that makes such information otherwise undiscoverable. Plaintiff will not provide any such information. It is not Plaintiff's intention to waive any privileges, and to the extent any privileged or protected document or information is produced, that production is inadvertent and shall not be deemed a waiver of any applicable privilege with respect to such document or information or any other document or information.

10. Plaintiff objects to the Admission Requests to the extent that they seek information prepared in anticipation of, or preparation for, settlement, litigation, or trial or that contain the work product, mental impressions, conclusions, opinions, or legal theories of Plaintiff's counsel.

11. Plaintiff objects to the Admission Requests to the extent that they call for conclusions of law.

12. Plaintiff objects to each definition of corporate or other entities to the extent said definitions include individual representatives but fail to restrict that inclusion to such individuals' representative capacity.

13. Plaintiff's investigation into the claims, defenses and alleged damages raised in this lawsuit is ongoing and Plaintiff reserves the right, but undertakes no obligation beyond that required

by the applicable discovery rules, to supplement these responses as additional information comes to light.

14. Plaintiff's responses are made to the best of its present knowledge, information and belief, and Plaintiff's responses reflect only the present state of Plaintiff's investigation. Plaintiff expects that Defendant may make legal or factual contentions presently unknown to and unforeseen by Plaintiff in response to which Plaintiff may offer different and additional information. Accordingly, Plaintiff expressly reserves the right to (a) rely upon and use, at trial or otherwise, any facts, documents, or other evidence which Plaintiff may develop or subsequently comes to Plaintiff's attention, or that proves necessary in explanation, response or rebuttal to any contention of any witness, or that was omitted from these responses as a result of mistake, inadvertence, surprise, or oversight; (b) assert additional information or grounds for objecting, and (c) amend, modify and/or supplement Plaintiff's responses to these Admission Requests at any time, without in any way obligating Plaintiff to do so other than as required by law or applicable rules. Moreover, Plaintiff's responses shall not in any way limit or restrict Plaintiff or Plaintiff' experts, if any, from reviewing, considering, referring to, or relying upon, any documents that they may deem relevant.

15. Plaintiff objects to the Admission Requests on the basis that they are premature, unduly burdensome, and oppressive insofar as they impermissibly seek to limit Plaintiff's trial strategy by calling for the identification of persons, facts and/or documents, that have yet to be identified and/or evaluated.

16. No objection or limitation, or lack thereof, made in this response shall be deemed an admission by Plaintiff as to the existence or nonexistence of information or documents.

17. Plaintiff objects to the Admission Requests to the extent they seek information or documents that are cumulative or duplicative.

18. Plaintiff object to the Admission Requests to the extent they seek information or the productions of documents that are obtainable from some other source that is more convenient, less burdensome or less expensive.

19. Plaintiff objects to the "model for each user" and "learning machine for each user" language from RFAs 14-29 as, *inter alia*, vague and ambiguous. During the parties' meet and confer, Google indicate that the "learning machine for each user" language meant what it said and thus if the system has 3 million users than a "learning machine for each user" would require 3 million separate learning machines -- one for each user. Google was not clear whether a single learning machine that utilized parameters that were specific to each user such that the learning machine provided, for example, a search result that was personalized for each of the 3 million users constituted a single learning machine or 3 million learning machines. PUM's supplemental responses to these RFAs are provided based on PUM's understanding a learning machine that utilizes parameters for each specific user is a learning machine for each user.

20. Plaintiff objects to the Admission Requests to the extent they assume disputed facts or assert legal conclusions. Plaintiff hereby denies such disputed facts or legal conclusions to the extent assumed by the Admission Requests. Any response or objection by Plaintiff with respect to any Admission Requests is without prejudice to this objection and Plaintiff's right to dispute facts and legal conclusions assumed by the Admission Requests.

21. Plaintiff responds to the Admission Requests without waiving, or intending to waive, but on the contrary, preserving and intending to preserve (a) the right to object, on the grounds of competency, privilege, relevance, or materiality, confidentiality, admissibility, or any other proper grounds, to the use of any documents or other information for any purpose in whole or in part, in any subsequent proceeding in this action or in any other action; (b) the right to object on any and all grounds, at any time, to other interrogatories, document requests or other discovery procedures

involving or relating to the subject matter of the Admission Requests to which Plaintiff responded herein; and (c) the right at any time to amend, revise, correct, supplement or clarify any of the responses and objections made herein.

STATEMENT OF SUPPLEMENTATION

P.U.M.'s investigation in this action is ongoing. Further, Google has yet to produce relevant source code for portions of the Smart Ads Selection System (SmartASS) relating to Content Ads, portions of the Mustang system relating to calculating a Quick Score and a Full Score also relating to Content Ads, and YouTube. Google's search witnesses, moreover, have not been able to answer questions relating to the algorithms used in the Kaltix Twiddleservlet and the K2 Twiddleservlet, the algorithms used to combine the Kaltix and K2 boosts and to apply the corresponding boost to the earlier-calculated information retrieval (IR) score. P.U.M. has an outstanding deposition notice on this issue, as well as outstanding deposition notices. Google, moreover, has not supplemented its document production with documents relating to these issues, and its soon-to-be launched or recently launched topics based News personalization. P.U.M. anticipates that facts it learns later in this litigation may be responsive to these Interrogatories and, accordingly, reserves its right to supplement these Interrogatories at appropriate points throughout this litigation without prejudice and/or to otherwise make available to Google such information. P.U.M. also reserves its right to change, modify, and/or enlarge the following responses based on additional information, further analysis, and/or in light of other events such as rulings by the Court. P.U.M. reserves the right to rely on or otherwise use any such amended responses for future discovery, trial, or otherwise. Unless stated otherwise in the individual RFAs, P.U.M.' statement of supplementation applies to all RFAs.

SPECIFIC RESPONSES AND OBJECTIONS TO THE ADMISSION REQUESTS

The General Objections set forth above apply to each of the Admission Requests and are not necessarily repeated in response to each individual Admission Request.

REQUEST FOR ADMISSION NO. 1:

Admit that the NAMED INVENTORS did not invent transparently monitoring user interactions with data.

RESPONSE TO REQUEST OF ADMISSION NO. 1:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "transparently monitoring user interactions with data" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for the phrase by, for example, indicating whether such transparent monitoring occurs when a user is engaged in the normal use of a computer as discussed in the claims, or whether the phrase should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, responds that it can neither admit nor deny this request because the phrase "invent transparently monitoring user interactions with data" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 1:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "transparently monitoring user interactions with data" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did not invent transparently monitoring user interactions with data.

REQUEST FOR ADMISSION NO. 2:

Admit that the NAMED INVENTORS did not invent updating user-specific data files.

RESPONSE TO REQUEST OF ADMISSION NO. 2:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "updating user-specific data files" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for the phrase by, for example, indicating whether the user-specific data files comprise the monitored user interactions with the data and a set of documents associated with the user as discussed in the claims, or whether the phrase should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent updating user-specific data files" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to

supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 2:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "updating user-specific data files" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did not invent updating user-specific data files.

REQUEST FOR ADMISSION NO. 3:

Admit that the NAMED INVENTORS did not invent estimating parameters of a learning machine.

RESPONSE TO REQUEST OF ADMISSION NO. 3:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "estimating parameters of a learning machine" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for the phrase by, for example, indicating whether parameters of the learning machine that are being estimated define a user model specific to the user and wherein the parameters are estimated in part from the user-specific data files as discussed in the claims, or whether the phrase should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent estimating parameters of a learning machine" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 3:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "estimating parameters of a learning machine" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did invent estimating parameters of a learning machine.

REQUEST FOR ADMISSION NO. 4:

Admit that the NAMED INVENTORS did not invent machine learning.

RESPONSE TO REQUEST OF ADMISSION NO. 4:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "machine learning" is undefined. For the purposes of this request, PUM interprets machine learning to be the scientific discipline known as machine learning. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that the named inventors did not invent machine learning as PUM understands that phrase.

REQUEST FOR ADMISSION NO. 5:

Admit that the NAMED INVENTORS did not invent the use of user models to determine user interest in documents.

RESPONSE TO REQUEST OF ADMISSION NO. 5:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "use of user models to determine user interest in documents" uses terms (e.g., "user models," "user" and "documents") that have a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for at least the term "user models," for example, by indicating whether the such models or model is specific to a user and whether the user model(s) is defined by parameters estimated in some manner as discussed in the claims, or whether the term should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent the use of user models to determine user interests in documents" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 5:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "use of a user model to determine user interest in documents" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM

responds that the named inventors did invent the use of a user model to determine user interest in documents.

REQUEST FOR ADMISSION NO. 6:

Admit that the NAMED INVENTORS did not invent analyzing a document to identify properties of the document.

RESPONSE TO REQUEST OF ADMISSION NO. 6:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the term "document" as used in the phrase "analyzing a document to identify the properties of the document" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for the phrase by, for example, indicating whether a "document" is electronic or paper, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent analyzing a document to identify properties of the document" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 6:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "analyzing a document to identify properties of the document" as it is used in

the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did not invent analyzing a document to identify properties of the document.

REQUEST FOR ADMISSION NO. 7:

Admit that the NAMED INVENTORS did not invent calculating a probability that a document is of interest to the user.

RESPONSE TO REQUEST OF ADMISSION NO. 7:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "calculating a probability that a document is of interest to the user" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. PUM objects to the request as premature for the same reason. Additionally, because the request does not provide any context for the phrase by, for example, indicating whether the so-called calculation is done applying the identified properties of the document to a learning machine having parameters defined by the user model as discussed in the claims, or whether the phrase should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether "invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent calculating a probability that a document is of interest to the user" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 7:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "calculating a probability that a document is of interest to the user" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did invent calculating a probability that a document is of interest to the user.

REQUEST FOR ADMISSION NO. 8:

Admit that the NAMED INVENTORS did not invent providing personalized information services to a user.

RESPONSE TO REQUEST OF ADMISSION NO. 8:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "providing personalized information services to a user" is vague and ambiguous. Because the request does not provide any context for the phrase by, for example, indicating whether the so-called personalization information services are provided in the context of a computer-implemented system/method and/or indicating whether an estimated probability is used as part of providing such information services as discussed in the claims, or whether the phrase should be interpreted more broadly, the request is vague, ambiguous, and not reasonably calculated to lead to the discovery of admissible evidence. Additionally the term "user" has a legal meaning that is subject to dispute as set forth in the parties' respective claim construction positions. Other disputed terms such as "probability" may also have bearing on this request. PUM objects to the request as premature for the same reason. That the request does not define the word "invent" further adds to the vagueness and ambiguity of the request because it is unclear whether

"invent" as used in the request means conceived and reduced to practice in the context of patent law, or something else.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "invent providing personalized information services to a user" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 8:

PUM incorporates by reference its general and specific objections set forth above. PUM interprets the phrase "providing personalized information services to a user" as it is used in the context of the inventions described and claimed in the patents-in-suit. In that context, PUM responds that the named inventors did invent providing personalized information services to a user.

REQUEST FOR ADMISSION NO. 9:

Admit that prior to the invention of the '040 PATENT, user-modeling and learning machines had been combined in the PRIOR ART.

RESPONSE TO REQUEST OF ADMISSION NO. 9:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the terms "user-modeling" and "learning machine" are vague and ambiguous. The request does not provide any context for these terms by, for example, indicating whether they are defined by parameters estimated in part from user-specific data files. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the

phrase OTHER ITEMS, which is also undefined. PUM also objects to this request because the meaning of terms "user model" and "learning machine" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the terms for the purposes of the request. The request is premature for the same reason. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "user-modeling and learning machines had been combined in the PRIOR ART" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 9:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the terms "user-modeling" and "learning machine" are vague and ambiguous. PUM also objects to this request because the meaning of terms "user model" and "learning machine" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the terms for the purposes of the request. The request does not provide any context for these terms by, for example, indicating whether they are defined by parameters estimated in part from user-specific data files. The request is premature for the same reason. Therefore, in responding to this request, PUM interprets "user modeling" and "learning machines" as these terms are used in the context of the patents-in-suit. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM

cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM denies that user-modeling and learning machines had been combined in the prior art.

REQUEST FOR ADMISSION NO. 10:

Admit that prior to the invention of the '040 PATENT, transparently monitoring user interactions with data was used in the PRIOR ART to provide personalized services to computer users.

RESPONSE TO REQUEST OF ADMISSION NO. 10:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "transparently monitoring user interactions with data was used in the PRIOR ART to provide personalized services to computer users" is vague and ambiguous. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM also objects to this request because the meaning of term "user" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the term for the purposes of the request. The request is premature for the same reason. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art

references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "transparently monitoring user interactions with data was used in the PRIOR ART to provide personalized services to computer users" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 10:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrases "transparently monitoring user interactions with data" and "to provide personalized services to computer users" are vague and ambiguous. The request does not provide any context for these terms. The request is premature for the same reason. Therefore, in responding to this request, PUM interprets these phrases as they are used in the context of the patents-in-suit. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM denies that transparently monitoring user interactions with data was used in the prior art to provide personalized services to computer users.

REQUEST FOR ADMISSION NO. 11:

Admit that prior to the invention of the '040 PATENT, data files applying only to a particular user were used in the PRIOR ART to provide personalized services to computer users.

RESPONSE TO REQUEST OF ADMISSION NO. 11:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "data files applying only to a particular user were used in the PRIOR ART to provide personalized services to computer users" is vague and ambiguous. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM also objects to this request because the meaning of term "user" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the term for the purposes of the request. The request is premature for the same reason. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "data files applying only to a particular user were used in the PRIOR ART to provide personalized services to computer users" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to

supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 11:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrases "data files applying only to a particular user" and "to provide personalized services to computer users" are vague and ambiguous. PUM also objects to this request because the meaning of term "data files" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the terms for the purposes of the request. The request does not provide any context for these terms by, for example, indicating whether they include the monitored interactions of the user or a set of documents associated with a user. The request is premature for the same reason. Therefore, in responding to this request, PUM interprets "data files" and "to provide personalize services to computer users" as these phrases are used in the context of the patents-in-suit. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM denies that data files applying only to a particular user were used in the prior art to provide personalized services to computer users.

REQUEST FOR ADMISSION NO. 12:

Admit that prior to the invention of the '040 PATENT, the PRIOR ART analyzed documents to determine if they would be of interest to the user in order to provide personalized services to computer users.

RESPONSE TO REQUEST OF ADMISSION NO. 12:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "the PRIOR ART analyzed documents to determine if they would be of interest to the user in order to provide personalized services to computer users" is vague and ambiguous. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM also objects to this request because the meaning of terms "user" and "documents" as used in the claims are in dispute, and the request does not indicate which meaning, if any, should be attributed to the terms for the purposes of the request. The request is premature for the same reason. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "the PRIOR ART analyzed documents to determine if they would be of interest to the user in order to provide personalized services to computer users" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 13:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrases "analyzed documents to determine if they would be of interest to the user " and "to provide personalized services to computer users" are vague and ambiguous. PUM also objects to this request because the meaning of term "to determine if they would be of interest to the user" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to the terms for the purposes of the request. The request does not provide any context for these terms. The request is premature for the same reason. Therefore, in responding to this request, PUM interprets "analyzed documents to determine if they would be of interest to the user " and "to provide personalized services to computer users" as these phrases are used in the context of the patents-in-suit. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM denies that the prior art analyzed documents to determine if they would be of interest to the user in order to provide personalized services to computer users.

REQUEST FOR ADMISSION NO. 13:

Admit that prior to the invention of the '276 PATENT, the PRIOR ART provided personalized results to computer users in response to search queries.

RESPONSE TO REQUEST OF ADMISSION NO. 13:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "the PRIOR ART provided personalized results to computer users in response to search queries" is vague and ambiguous. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM also further objects to this request because the meaning of term "users" as used in the claims is in dispute, and the request does not indicate which meaning, if any, should be attributed to this term for the purposes of the request. The request is premature for the same reason. Additionally, PUM objects to this request because the term "personalized results" is vague and ambiguous. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM responds that it can neither admit nor deny this request because the phrase "the PRIOR ART provided personalized results to computer users in response to search queries" as used in the request is vague and ambiguous thereby rendering the request vague and ambiguous. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order and/or upon clarification of the request by Defendant.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 13:

In addition to the foregoing general objections, PUM specifically objects to the request as vague and ambiguous because the phrase "provide personalized results to computer users" is vague and ambiguous. The request does not provide any context for this phrase. Therefore, in responding to this request, PUM interprets "providing personalized results to computer users" as this phrase is used in the context of the patents-in-suit. The request is also vague and ambiguous because PRIOR ART, as defined, includes references relating to the subject matter of the Patents-in-Suit, regardless of whether PUM and/or Google are aware of such references. PUM cannot respond regarding references that it has never seen. The phrase is overly broad and unduly burdensome for the same reason, as well as because its definition includes the phrase OTHER ITEMS, which is also undefined. PUM further objects to this request as compound. Defendant's response to PUM's interrogatory no. 13 identifies numerous purported prior art references and charts 15 such references. Even limiting the request to the charted references, this request is, in essence, 15 separate requests. As such, it is also overly broad and unduly burdensome.

Without waiving the foregoing objections, PUM denies that the prior art provided personalized results to users in response to search queries. PUM reserves its right to supplement its response upon the issuance of the Court's claim construction order.

REQUEST FOR ADMISSION NO. 14:

Admit that the Smart Ad Selection System does not have a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 14:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "model for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user model specific to the user" and/or "user,"

PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "model for each user" to mean that a separate model is generated for every single user of the system "user model specific to the user" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to at least personalization, profile development, and SmartASS that is used in its Adwords system/product. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Smart Ad Selection System (SmartASS) does utilize a model for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 14:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Smart Ad Selection System (SmartASS) does have a model for each user. Such models are

identified for both Google's Search Ads (AdWords) and Google's Content Ads (AdSense) in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 15:

Admit that the Smart Ad Selection System has a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 15:

PUM incorporates its objections and response to request no. 14.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 15:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Smart Ad Selection System (SmartASS) does have a model for each user. Such models are identified for both Google's Search Ads (AdWords) and Google's Content Ads (AdSense) in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 16:

Admit that Google Personalized Search does not have a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 16:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "model for each user" is undefined, vague and ambiguous. To the extent that this

request intends to ask about the terms or phrases "user model specific to the user" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "model for each user" to mean "user model specific to the user" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and twiddlesets that is used in its search system/product. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's search product/system does utilize a model for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 16:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google Search does have a model for each user as set forth in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 17:

Admit that Google Personalized Search has a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 17:

PUM incorporates its objections and response to request no. 16.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 17:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google Search does have a model for each user as set forth in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 18:

Admit that Google News does not have a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 18:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "model for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user model specific to the user" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject

of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "model for each user" to mean "user model specific to the user" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's news product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's news topic based product/system that is soon to be launched does utilize a model for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 18:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google News does have a model for each user as set forth in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 19:

Admit that Google News has a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 19:

PUM incorporates its objections and response to request no. 18.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 19:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "model for each user" to be different than that "User Model specific to the user" as claimed in the asserted patents. Rather, P.U.M. interprets the phrase "model for each user" to mean a mathematical representation of the user -- that is, a mathematical representation of the person operating the computer as represented by a tag or identifier.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google News does have a model for each user as set forth in PUM's Supplemental Response to Interrogatory No. 17.

REQUEST FOR ADMISSION NO. 20:

Admit that Google Reader does not have a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 20:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "model for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user model specific to the user" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "model for each user" to mean "user model specific to the user" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because

Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's reader product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that at this time it does not have enough information to admit or deny whether Goolge's reader product/system utilizes a model for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 20:

As set forth in PUM's supplemental response to Interrogatory No. 10, PUM no longer accuses Google Reader, thus no supplementation is necessary.

REQUEST FOR ADMISSION NO. 21:

Admit that Google Reader has a model for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 21:

PUM incorporates its objections and response to request no. 20.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 21:

As set forth in PUM's supplemental response to Interrogatory No. 10, PUM no longer accuses Google Reader, thus no supplementation is necessary.

REQUEST FOR ADMISSION NO. 22:

Admit that the Smart Ad Selection System does not have a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 22:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "learning machine for each user" is undefined, vague and ambiguous. To the

extent that this request intends to ask about the terms or phrases "user-specific learning machine" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "learning machine for each user" to mean "user-specific learning machine" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and SmartASS that is used in its Adwords system/product. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's Smart Ad Selection System (adwords product/system) does utilize a learning machine for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 22:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Smart Ad Selection System (SmartASS) as used to personalize ads in both Google's Search Ads (AdWords) and Google's Content Ads (AdSense) systems does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 23:

Admit that the Smart Ad Selection System has a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 23:

PUM incorporates its objections and response to request no. 22.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 23:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Smart Ad Selection System (SmartASS) as used to personalize ads in both Google's Search Ads (AdWords) and Google's Content Ads (AdSense) systems does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 24:

Admit that Google Personalized Search does not have a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 24:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "learning machine for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user-specific learning machine" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "learning machine for each user" to mean "user-specific learning machine" as

PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and twiddlesets that is used in its search system/product. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's search product/system does utilize a learning machine for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 24:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's Personal Search product/system does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 25:

Admit that Google Personalized Search has a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 25:

PUM incorporates its objections and response to request no. 24.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 25:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to

mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's Personal Search product/system does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 26:

Admit that Google News does not have a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 26:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "learning machine for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user-specific learning machine" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "learning machine for each user" to mean "user-specific learning machine" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's news product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's news product/system does utilize a learning machine for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 26:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google's News product/system does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 27:

Admit that Google News has a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 27:

PUM incorporates its objections and response to request no. 26.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 27:

P.U.M. incorporates by reference its general and specific objections set forth above. Per the parties meet and confer discussion, P.U.M. interprets the phrase "learning machine for each user" to mean that each user (*i.e.*, the person operating the computer as represented by a tag or identifier) has an associated learning machine.

Subject to and without waiving the foregoing general and specific objections, PUM responds that the Google's News product/system does have a learning machine for each user as set forth PUM's Supplemental Response to Interrogatory No. 18.

REQUEST FOR ADMISSION NO. 28:

Admit that Google Reader does not have a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 28:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "learning machine for each user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms or phrases "user-specific learning machine" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms and/or phrases currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "learning machine for each user" to mean "user-specific learning machine" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's reader product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that at this time it does not have enough information to admit or deny whether Goolge's reader product/system utilizes a model for each user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 28:

As set forth in PUM's supplemental response to Interrogatory No. 10, PUM no longer accuses Google Reader, thus no supplementation is necessary.

REQUEST FOR ADMISSION NO. 29:

Admit that Google Reader has a learning machine for each user.

RESPONSE TO REQUEST OF ADMISSION NO. 29:

PUM incorporates its objections and response to request no. 28.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 29:

As set forth in PUM's supplemental response to Interrogatory No. 10, PUM no longer accuses Google Reader, thus no supplementation is necessary.

REQUEST FOR ADMISSION NO. 30:

Admit that Google Search does not compute percentages when ranking search results.

RESPONSE TO REQUEST OF ADMISSION NO. 30:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "compute percentages when ranking search results" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms "display" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "compute percentages when ranking search results" to mean "estimating a probability" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, the twiddlesets, information relating to the internal calculations performed by the respective twiddlers within at least the Kaltix and K2 twiddlesets, and information relating to the calculations that combine the results produced by the individual twiddlers within at least these two twiddlesets. This request is objectionable, moreover, because it seeks the

discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's search product/system does compute percentages as part of the process of determining the ranking of search results as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 30:

P.U.M. incorporates by reference its general and specific objections set forth above. P.U.M. further objects to the phrase "compute percentages when ranking search results" as vague and ambiguous because the phrase is unclear whether Google is referring to the final stage of selecting candidate search results to be provided to the user, or also includes any and all intermediate calculations involved in the process of selecting the search results that are provided to the user. Additionally, the term "percentages" is vague and ambiguous as the same numerical data may be expressed in several mathematical forms and converting between the forms is simply the ministerial act of transforming the numbers. P.U.M. further objects to this RFA as premature because Google's witnesses too date have not been able to provide detailed testimony on how the intra-twiddleset and inter-twiddleset calculations that are involved in ranking are performed, or identify the algorithms used to perform such calculations. Google's witnesses, likewise, have not been able to provide testimony on the calculations after the overall boost has been applied to the candidate search results IR score to determined whether to reorder that candidate results, but at least some Google documents suggest that the now boosted scores may be normalized and/or transformed.

Subject to and without waiving the foregoing general and specific objections, P.U.M. responds that Google's documents indicate that at least certain calculations used in the process of determining the ordering of search results generate numbers between 0 and 1 (*e.g.*, the probability of a long click (pLC) calculations. Additional details are set forth in P.U.M.'s supplemental response

to Interrogatory No. 20, which P.U.M. incorporates by reference. P.U.M. further responds that discovery on this issue is not complete and specifically reserves its right to supplement this response as discovery continues.

REQUEST FOR ADMISSION NO. 31:

Admit that Google Reader does not compute percentages when ranking content to display to a user.

RESPONSE TO REQUEST OF ADMISSION NO. 31:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "compute percentages when ranking search results" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms "display" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "compute percentages when ranking search results" to mean "estimating a probability" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's reader product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that at this time it does not have enough information to admit or deny whether Goolge's reader product/system computes percentages when ranking content to display to a user.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 31:

As set forth in PUM's supplemental response to Interrogatory No. 10, PUM no longer accuses Google Reader, thus no supplementation is necessary.

REQUEST FOR ADMISSION NO. 32:

Admit that Google News does not compute percentages when ranking content to display to a user.

RESPONSE TO REQUEST OF ADMISSION NO. 32:

In addition to the foregoing general objections, PUM specifically objects to this request because the phrase "compute percentages when ranking content to display to a user" is undefined, vague and ambiguous. To the extent that this request intends to ask about the terms "display" and/or "user," PUM further objects to this request as vague and ambiguous because answering it requires the construction of terms currently in dispute between the parties that will be the subject of the Court's forthcoming claim construction order. In responding to this request, PUM interprets the phrase "compute percentages when ranking search results" to mean "estimating a probability" as PUM defined that term/phrase during claim construction. PUM further objects to this request as premature because Defendant has yet to produce, among other things, the complete source code relating to personalization, profile development, and other aspects of Google's news product/system. This request is objectionable, moreover, because it seeks the discovery of information within the scope of Fed. R. Civ. P. 26(b)(4)(A) and, therefore, constitutes an improper and premature attempt to conduct discovery of expert opinion.

Subject to and without waiving the foregoing general and specific objections, PUM responds that Google's news product/system does compute percentages as part of the process of determining the ranking of content to display to a user as PUM understands that phrase.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 32:

P.U.M. incorporates by reference its general and specific objections set forth above. P.U.M. further objects to the phrase "compute percentages when ranking search results" as vague and ambiguous because the phrase is unclear whether Google is referring to the final stage of selecting candidate news articles to be provided to the user, or also includes any and all intermediate calculations involved in the process of selecting the news articles that are provided to the user. Additionally, the term "percentages" is vague and ambiguous as the same numerical data may be expressed in several mathematical forms and converting between the forms is simply the ministerial act of transforming the numbers. P.U.M. further objects to this RFA as premature because Google's witnesses too date have not been able to provide detailed testimony on how the implicit personalization algorithm is involved in ranking.

Subject to and without waiving the foregoing general and specific objections, P.U.M. responds that Google's documents indicate that at least certain calculations used in the process of determining the ordering of news articles (*e.g.,* boosting or demoting) generate numbers between 0 and 1. Additional details are set forth in P.U.M.'s supplemental response to Interrogatory No. 20, which P.U.M. incorporates by reference. P.U.M. further responds that discovery on this issue is not complete and specifically reserves its right to supplement this response as discovery continues.

REQUEST FOR ADMISSION NO. 33:

Admit that PLAINTIFF did not provide any monetary compensation to LEVINO in consideration for the assignment of rights to the PATENTS-IN-SUIT.

RESPONSE TO REQUEST OF ADMISSION NO. 33:

PUM hereby incorporates by reference the General Objections set forth above. PUM objects to the use of the term "monetary compensation" because this term is undefined and renders this request vague and ambiguous.

Subject to and without waiving the foregoing general and specific objections, PUM responds because the owners of both Levino and PUM were the same at the time of the transfer of the patents-in-suit, no monetary compensation was paid by PUM to Levino.

SUPPLEMENTAL RESPONSE TO REQUEST FOR ADMISSION NO. 33:

PUM hereby incorporates by reference the General and Specific Objections set forth above. Subject to and without waiving the foregoing general and specific objections, PUM responds that at the time of the transfer of the patents-in-suit from Levino to P.U.M. the owners of the two entities were exactly the same, namely, Jack Banks, Shimon Twersky, Levy Benaim, Roy Twersky, Yochai Konig and Utopy. Because the assignment was a mere transfer (and not a sale or gift) between the same owners, no money was paid by P.U.M. to Levino.

Dated: April 22, 2011

MORRIS, NICHOLS, ARSHT & TUNNELL LLP
\s\ Karen Jacobs Louden
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April 22, 2011

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on April 22, 2011, I electronically served the foregoing:

PLAINTIFF PERSONALIZED USER MODEL, L.L.P.'S SUPPLEMENTAL RESPONSES TO DEFENDANT GOOGLE, INC.'S FIRST SET OF REQUESTS FOR ADMISSION (NOS. 1-33)

/s/ Jennifer D. Bennett
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EXHIBIT I

THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY

EXHIBIT J

THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY

EXHIBIT K

THIS EXHIBIT HAS BEEN REDACTED IN ITS ENTIRETY