# **EXHIBIT L**

# UNITED STATES DISTRICT COURT EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

I/P ENGINE, INC.,

Plaintiff,

v.

Civ. Action No. 2:11-cv-512

AOL, INC. et al.,

Defendants.

# <u>PEFENDANT GOOGLE INC.'S THIRD SUPPLEMENTAL OBJECTIONS AND RESPONSES TO PLAINTIFF I/P ENGINE, INC.'S FIRST SET OF INTERROGATORIES (INTERROGATORY NO. 8)</u>

Pursuant to Federal Rules of Civil Procedure 26 and 33, Defendant Google Inc. ("Google") hereby further objects and responds in writing to I/P Engine, Inc.'s ("I/P Engine") First Set of Interrogatories as served on November 7, 2011.

# **GENERAL OBJECTIONS**

Google hereby incorporates by reference and re-states each General Objection from Google's First and Second Supplemental Objections and Responses to I/P Engine's First Set of Interrogatories.

# STATEMENT ON SUPPLEMENTATION

Google's investigation in this action is ongoing, and Google reserves the right to rely on and introduce information in addition to any information provided herein at the trial of this matter or in other related proceedings. Google has yet to receive complete discovery responses from I/P Engine. In addition, I/P Engine has yet to identify in a coherent way how it contends Google infringes the asserted claims of the Patents-in-Suit. Google anticipates that facts it learns

later in the litigation may be responsive to one or more of the interrogatories and Google reserves is right to supplement these interrogatories at appropriate points throughout this litigation without prejudice and/or to otherwise make available to I/P Engine such information. Google also reserves the right to change, modify or enlarge the following responses based on additional information, further analysis, and/or in light of events in the litigation such as rulings by the Court. Google reserves the right to rely on or otherwise use any such amended response for future discovery, trial or otherwise.

# SPECIFIC OBJECTIONS AND RESPONSES

Google expressly incorporates the above objections as though set forth fully in response to each of the following individual interrogatories, and, to the extent that they are not raised in the particular response, Google does not waive those objections.

#### INTERROGATORY NO. 8

Identify and describe each basis for Google's contention that the claims of the '420 and '664 Patents are invalid including, but not limited to, all facts, dates, documents, communications and/or events, including prior art, which Google contends are pertinent thereto, and identify the persons having the most knowledge of such facts, dates, documents, communications and/or events.

# RESPONSE TO INTERROGATORY NO. 8:

Google incorporates here in response to this interrogatory its General Objections above by this reference. Google objects to this interrogatory on the grounds that: (i) it is overbroad and unduly burdensome; (ii) it is vague and ambiguous with respect to the phrase "all facts, dates, documents, communications and/or events;" (iii) it seeks information that is irrelevant,

immaterial or not reasonably calculated to lead to the discovery of admissible evidence. Google further objects to this interrogatory on the ground that it seeks proprietary, trade secret or other confidential or competitively sensitive business information; and (iv) it is compound and/or is comprised of subparts constituting more than one interrogatory in that it seeks information about '420 and '664 Patents. Google will only produce such relevant, non-privileged information subject to adequate protections for Google's confidential, trade secret and/or proprietary business or technical information via a protective order entered by the Court in this action.

Subject to the foregoing general and specific objections, Google responds that in accordance with Federal Rule of Civil Procedure 33(d), all or part of the non-objectionable discovery sought may be obtained from documents that will be produced. Google will rely on documents produced in this action and will identify those documents to the extent reasonable after the time they are produced. Google will supplement its response to Interrogatory No. 8 to reference relevant documents to the extent reasonable.

Google further responds that the following references, either alone or in conjunction with the knowledge of one of skill in the art, render one or more of the asserted claims invalid:

- "Content-Based, Collaborative Recommendation" by Balabanovic et al.
- "Feature-based and Clique-based User Models for Movie Selection: A Comparative Study" by Alspector et al.
- "Using Collaborative Filtering to Weave an Information Tapestry" by Goldberg et al.
- "Architecting Personalized Delivery of Multimedia Information" by Loeb
- U.S. Patent No. 5,794,237 to Gore
- U.S. Patent No. 5,835,087 to Herz
- U.S. Patent No. 5,855,015 to Shoham
- U.S. Patent No. 6,202,058 to Rose

- U.S. Patent No. 5,724,567 to Rose et al.
- U.S. Patent No. 6,006,218 to Breese et al.
- U.S. Patent No. 6,421,675 to Ryan et al.
- U.S. Patent No. 5,963,940 to Liddy et al.

Google further asserts that the asserted claims of the '420 and '664 patent, as apparently interpreted by Plaintiff, are invalid for lack of enablement and written description. In particular, neither patent describes or enables using collaborative filtering or any other form of feedback on a demand search. Rather, the patents only describe and enable using collaborative filtering with persistent or "wire" search results.

Google reserves its right to supplement, revise or render more specific its responses to Interrogatory No. 8, including during expert discovery.

#### SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 8:

Subject to the foregoing general and specific objections, Google identifies the following documents previously produced by Google as showing that the asserted claims from the '420 and '664 patents are invalid: G-IPE-0217615 - G-IPE-0217641, G-IPE-0217642 - G-IPE-0217648, G-IPE-0217649 - G-IPE-0217672, G-IPE-0217673 - G-IPE-0217683, G-IPE-0217684 - G-IPE-0217693, G-IPE-0217694 - G-IPE-0217708, G-IPE-0217709 - G-IPE-0217756, G-IPE-0217757 - G-IPE-0217770, G-IPE-0217771 - G-IPE-0217780, G-IPE-0217781 - G-IPE-0217796, G-IPE-0217797 - G-IPE-0217813, G-IPE-0217814 - G-IPE-0217870, G-IPE-0217871 - G-IPE-0217956, G-IPE-0217957 - G-IPE-0217957 - G-IPE-0217999, and G-IPE-0218000 - G-IPE-0218013.

Google served its Preliminary Invalidity Contentions on January 24, 2012. Google hereby incorporates those Contentions by reference and submits that its response to this

Interrogatory also may be derived from those disclosures. Google reserves the right to amend and/or supplement its invalidity contentions if and when further information becomes available.

Google reserves its right to supplement, revise or render more specific its responses to Interrogatory No. 8, including during expert discovery.

# SECOND SUPPLEMENTAL RESPONSE TO INTERROGATORY NO. 8

Google incorporates its General Objections, Specific Objections to Interrogatory No. 8, and prior responses to Interrogatory No. 8 as if fully set forth herein.

Subject to the foregoing General and Specific Objections, Google further states that the following additional prior art references, either alone or in conjunction with the knowledge of one of skill in the art, render one or more of the asserted claims invalid:

- U.S. Patent No. 6,185,558 to Bowman et al. ("Bowman")
- U.S. Patent No. 6,006,222 to Culliss ("Culliss")
- U.S. Patent No. 6,421,675 to Ryan et al. ("Ryan")

Claim charts illustrating how Bowman, Culliss, and Ryan invalidate the asserted claims are attached hereto as Exhibits A-7, A-8, and A-9.<sup>1</sup>

Plaintiff alleged that various references from Defendants' Preliminary Invalidity

Contentions do not filter informons "for relevance to the query" or receive information "found to be relevant to the query by other users," on the theory that these references filter and rank for relevance to the user instead of relevance to the query. *See*, *e.g.*, I/P Engine's Response to Google's Interrogatory No. 13 at 6 (stating that the Rose reference "ranks items based on how

<sup>&</sup>lt;sup>1</sup> Google further attaches to this interrogatory response, as Exhibits A-1 through A-6, amended versions of the claim charts that were first presented as Exhibits to Defendants' Preliminary Invalidity Contentions.

well their content matches a profile of interests stored for each user, not a query received from an individual user"); 14 ("Nor does Balabanovic disclose 'receiving information found to be relevant to the query by other users.' Balabanovic's feedback is an indication of how well a user liked an item.")

Defendants further provide invalidity charts for Bowman, Culliss, and Ryan, which filter information "for relevance to the query" and "receiv[e] information found to be relevant to the query by other users." *See* Exhibits A-7, A-8, A-9. For example, Bowman accepts a search query from a user and generates a body of search results that match the query. (*See* Bowman at Abstract; 5:31-32; claim 28). Bowman then gives each search result a ranking score based on how often prior users *who had entered the same query* had selected that particular result. (*See id.* at Abstract; 2:30-35; 5:32-35; claim 28). Items that were selected more often get higher ranking scores, and the items with the highest ranking scores are presented to the user. (*Id.* at 9:60-64). (As detailed in the attached charts, Bowman, Culliss, and Ryan also use content-based filtering with their feedback-based filtering.)

Notably, while I/P Engine sought to distinguish the prior art references on the alleged ground that they do not filter information "for relevance to the query" or "receiv[e] information found to be relevant to the query by other users," it has essentially ignored these limitations in its Infringement Contentions. For example, I/P Engine's Infringement Contentions state that Google AdWords meets the '664 claim element of "receiving information found to be relevant to the query by other users" because AdWords allegedly records an advertisement's historical click-through rate and allegedly uses this click-through rate as a component of the advertisement's Quality Score. (See I/P Engine, Inc.'s Second Preliminary Infringement Contentions against Google at 24-25). Even if these assertions are true—and they are not—I/P Engine does not even

try to explain how historical click-through rate constitutes "information found to be relevant to the query by other users." Rather, I/P Engine's Infringement Contentions assert that an advertisement's historical click-through rate is the overall rate that the ad was clicked on by all AdWords users, not just users who had entered the same query. Thus, I/P Engine's own Infringement Contentions fail to even allege how AdWords meets the limitation that I/P Engine asserts was missing from Defendants' prior invalidity charts, *i.e.* a measure of how relevant users found an advertisement to be for any given query.

\* \* \*

Google also notes that the Court's *Markman* Order of June 15, 2012 (Dkt. 171) held that "scanning a network" means "looking for or examining items in a network" and "a scanning system" means "a system used to search for information." (*See id.* at 23). Under this construction, the process of "scanning" is not limited to spidering or crawling, as Defendants had originally proposed, expanding the relevant art for this element further. Similarly, the *Markman* Order also construed "collaborative feedback data" and "[feedback system for] receiving information found to be relevant to the query by other users" so as not to require that the feedback or received information comes from users with similar interests or needs, again expanding the art relevant to this limitation. (*See id.*) Google's investigation continues as to relevant prior art under the Court's constructions and Google reserves its rights to supplement its response based on additional prior art discovered under that investigation.

Further, the Court has construed "demand search" as "a single search engine query performed upon a user request," and has construed "query" as a "request for search results." (Markman Order at 8, 23). The Court construed "scanning a network" as "looking for or examining items in a network." (*Id.* at 23). Thus, the element of "scanning a network to make a

demand search for informons" requires looking for or examining items to make a request for

search results, which makes no sense. The '420 specification also does not describe how to look

for or examine items to make a request for search results, nor does it enable one of skill in the art

to carry out this step. Accordingly, claims 10, 25, and their dependents are invalid for

indefiniteness, lack of written description, and lack of enablement.

Google understands that I/P Engine will supplement its Infringement Contentions by July

2, 2012, and Google reserves its rights to supplement this response based on I/P Engine's

forthcoming supplemental Infringement Contentions.

Dated: July 2, 2012

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8

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**CERTIFICATE OF SERVICE** 

On July 2, 2012, I caused to be served the foregoing Defendant Google Inc.'s Third

Supplemental Objections and Responses to Plaintiff I/P Engine, Inc.'s First Set of Interrogatories

by email, on Plaintiff's counsel of record.

/s/Joshua L. Sohn

Joshua L. Sohn

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9

# Exhibit A-7

# U.S. Patent Claim Charts for the asserted '664 and '420 patents against U.S. Patent No. 6,185,558 ("Bowman")

To the extent that either I/P Engine argues or the Court finds that this reference does not explicitly teach certain limitations in the asserted claims, such limitations would have been inherent and/or obvious. This invalidity chart is based in whole or in part on Defendants' present understanding of the asserted claims, and I/P Engine's apparent construction of the claims in their Infringement Contentions. Defendants are not adopting I/P Engine's claim construction, nor admitting to the accuracy of any particular claim construction. To the extent that I/P Engine's apparent claim construction or applications thereof are reflected in this invalidity chart, nothing herein should be construed as an admission that Defendants agree with I/P Engine's apparent claim construction or I/P Engine's application of that claim construction in its Infringement Contentions.

Defendants identification of this publication as prior art herein under 35 U.S.C. §§102(a), (b), (e), and/or (g) and §103 includes the publication itself as well as the use of the products and systems described therein. Although Defendants' investigation continues, information available to date indicates that such products and systems were (1) known or used in the country before the alleged invention of the claimed subject matter of the asserted claims, (2) were in public use and/or on sale in this country more than one year before the filing date of the patent, and/or (3) were invented by another who did not abandon, suppress, or conceal, before the alleged invention of the claimed subject matter of the asserted claim. Upon information and belief, these prior art products and systems and their associated references anticipate and/or render obvious each of the asserted claims.

Defendants reserve all rights to amend their Invalidity Contentions if I/P Engine amends its Infringement Contentions.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
1. [preamble] A search system comprising:	See Bowman at 5:31-32 (stating that Bowman's system includes "a query server for generating query results from queries.")  See Bowman at Claim 28[a-b] ("A computer-readable medium whose contents cause a computer system to rank items in a search result by: receiving a query specifying one or more terms; generating a query result identifying a plurality of items satisfying the query")

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman	
	"Many World Wide Web sites permit users to perform searches to identify a small number of interesting items among a much larger domain of items. As an example, several web index sites permit users to search for particular web sites among most of the known web sites." Bowman at 1:18-22.	
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:	
	Herz at 6:42-58.	
	Lashkari at 59.	
	Tapestry at 63.	
	Balabanovic at 69-70.	
	GroupLens at 2.	
	Rose at 2:51-55.	
	Culliss at Abstract, 4:20-26.	
	Ryan at Abstract, 1:8-10, 1:20-23.	
[a] a scanning system for searching for information relevant to a query associated with a first user in a plurality of users;	"In order to perform a search, a user submits a query containing one or more query terms. The query also explicitly or implicitly identifies a domain of items to search. For example, a user may submit a query to an online bookseller containing terms that the user believes are words in the title of a book. A query server program processes the query to identify within the	

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	domain items matching the terms of the query. The items identified by the query server program are collectively known as a query result." Bowman at 1:28-37.
	"As an example, several web index sites permit users to search for particular web sites among most of the known web sites. Similarly, many online merchants, such as booksellers, permit users to search for particular products among all of the products that can be purchased from a merchant. In many cases, users perform searches in order to ultimately find a single item within an entire domain of items." Bowman at 1:20-25.
	"The memory 130 preferably contains a query server 131 for generating query results from queries, a query result ranking facility 132 for automatically ranking the items in a query result in accordance with collective user preferences, and item rating tables 133 used by the facility." Bowman at 5:31-35.
	"In response to receiving the HTTP request documented in Log Entry 1, the query server generates a query result for the query and returns it to the web client submitting the query." Bowman at 7:65-67.
	See also chart for claim 1(preamble), supra.
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:42-58.
	Lashkari at 59.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	Tapestry at 63.
	Balabanovic at 69-70.
	GroupLens at 2.
	Rose at 2:51-55.
	Culliss at Abstract, 4:10-26
[b] a feedback system for receiving information found to be relevant to the query by other users; and	Bowman at Abstract ("[A] software facility produces a ranking value for at least a portion of the items identified in the query result by combining the relative frequencies with which users selected that item from the query results specifying each of the terms specified by the query.")
	Bowman at Claim 28[c] ("for each item identified in the query result, combining the relative frequencies with which users selected the item in earlier queries specifying each of the terms in the query to produce a ranking value for the item.")
	Bowman at 2:32-34 ("The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term.")
	"In augmenting the item rating table 300, the facility identifies the selection of the item having item identifier '1883823064' from a query result produced by a query specifying the query terms 'human' and 'dynamics'. FIG. 4 shows the state of the item rating table after the item rating table is augmented by the facility to reflect this selection." Bowman at 6:26-31.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disc	closure in E	Bowman		
	"The facility may also use the ranking values to subset the items in the query result to a smaller number of items. By ordering and/or subsetting the items in the query result in this way in accordance with collective and individual user behavior the facility substantially increases the likelihood that the user will quickly find within the query result the particular item or items that he or she seeks." Bowman at 2:62-3:2.  "Where information about user selections is stored in web server logs such as those discussed above, the facility preferably identifies user selections by				
					an occur either in a batch processing of time has been completely generated,
					nat log entries are processed as soon as
	they	are genera	ted." Bown	nan at 8:21-	27.
	Bow	vman at Fig	. 4:		
				item rating table	<u>-</u> ∫ <sup>400</sup>
		term	item identifier	score	
			:		
	401 -	dynamics	0801062272	1 23	
	402 -	dynamics	1883823064 9676530409	7	
	403 -	1	:		
	404 -	human human	0814403484 1883823064	16 46	
	405 - 406 -	human	6303702473	3	
			:		
					1

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:13-18, 10:44-47, 19:9-14; 23:45-24:13.
	Lashkari at 59-60, 18.
	Tapestry at 63.
	GroupLens at 1, 2, 5-10.
	Rose at 6:59-7:10.
	Culliss at Abstract; 4:37-41.
	Ryan at 2:31-37.
[c] a content-based filter system for combining the information from the feedback system with the information from the scanning system and for filtering the combined information for relevance to at least one of the query and the first user.	Bowman at 9:28-53 ("The facility uses rating tables that it has generated to generate ranking values for items in new query results scores may be adjusted to more directly reflect the number of query terms that are matched to the item, so that items that match more query terms than others are favored in the rankings.")
	Bowman at claim 29 ("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.")
	Bowman at 1:42-45 ("As another example, the list may be ordered based on

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	the extent to which each identified item matches the terms of the query.")
	"To generate a ranking value for a particular item in a query result, the facility combines the rating scores corresponding to that item and the terms of the query. In embodiments in which the goal is to generate ranking values for each item in the query result, the facility preferably loops through the items in the query results and, for each item, combines all of the rating scores corresponding to that item and any of the terms in the query." Bowman at 2:40-47
	"The facility uses rating tables that it has generated to generate ranking values for items in new query results. FIG. 8 is a flow diagram showing the steps preferably performed by the facility to order a query result using a rating table by generating a ranking value for each item in the query result. In steps 801-807, the facility loops through each item identified in the query result. In step 802, the facility initializes a ranking value for the current item. In steps 803-805, the facility loops through each term occurring in the query. In step 804, the facility determines the rating score contained by the most recently-generated rating table for the current term and item. In step 805, if any terms of the query remain to be processed, then the facility loops up to step 803, else the facility continues in step 806. In step 806, the facility combines the scores for the current item to generate a ranking value for the item." Bowman at 9:28-43.
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 18:39-43.
	Lashkari at 15-16, 60.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	Tapestry at 61, 63.
	Balabanovic at 69, 66.
	GroupLens at 2, 3.
	Rose at Abstract, 6:5-11.
	Culliss at 14:34-36, 13:35-42.
	Ryan at 1:59-66, 23:38-49.
<b>5.</b> The search system of claim <b>1</b> wherein the filtered information is an advertisement.	Bowman at 5:4, 9:2-3, claim 7 (disclosing that system users can purchase the items represented by the search results, which effectively render the search results as advertisements for those items)
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. <i>See, e.g.</i> :
	Herz at 61:4-18.
	Culliss at 9:58-62.
	Ryan at 4:57-59, 22:49-55.
<b>6.</b> The search system of claim <b>1</b> further comprising an information delivery system for delivering the filtered information to the first user.	See Bowman at 9:56-58 ("In step <b>808</b> , the facility displays the items identified in the query result in accordance with the ranking values generated for the items in step <b>806</b> ")
usor.	"By ordering and/or subsetting the items in the query result in this way in

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	accordance with collective and individual user behavior rather than in accordance with attributes of the items, the facility substantially increases the likelihood that the user will quickly find within the query result the particular item or items that he or she seeks." Bowman at 2:63-3:3.
	"In step 907, the facility selects for prominent display items having the top three combined scores. In additional embodiments, the facility selects a small number of items having the top combined scores that is other than three." Bowman at 10:30-34.
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:13-18, Fig. 10 at 1106.
	GroupLens at 10, 11.
	Rose at Abstract.
	Culliss at 4:25-31.
	Ryan at 21:14-26, 23:47-49.
<b>21.</b> The search system of claim <b>1</b> wherein the content-based filter system filters by extracting features from the information.	See Bowman at 9:50-53; claim 29 (disclosing the extraction of words from the content of each search result in order to determine how many of the words from the query are found in the search result.)
	"In steps 204-208, the facility loops through each item selection from a query result that was made by a user during the time period." Bowman at 5:57-59.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	"Various embodiments of the invention base rating scores on different kinds of selection actions performed by the users on items identified in query results. These include whether the user displayed additional information about an item, how much time the user spent viewing the additional information about the item, how many hyperlinks the user followed within the additional information about the item, whether the user added the item to his or her shopping basket, and whether the user ultimately purchased the item."  Bowman at 3:16-24.
	"On the other hand, in embodiments in which the goal is to select a few items in the query result having the largest ranking values, the facility preferably loops through the terms in the query, and, for each item, identifies the top few rating scores for that term and any item." Bowman at 4:26-31.
	Bowman at 7:46-55:
	<ol> <li>Friday, Feb. 13, 1998 16:59:27</li> <li>User Identifier=82707238671</li> <li>HTTP_REFERER=http://www.amazon.com/book_query_page</li> <li>PATH_INFO=/book_query</li> <li>author="Seagal"</li> <li>title="Human Dynamics"</li> </ol>
	Log Entry 1
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:18-29.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
	Lashkari at 15-16, 60.
	Tapestry at 67.
	Balabanovic at 69.
	GroupLens at 3.
	Rose at 2:35-38; 6:10-25.
	Culliss at 14:34-36.
	Ryan at 16:4-9.
<b>22.</b> The search system of claim <b>21</b> wherein the extracted features comprise content data indicative of the relevance to the at least one of the query and the user.	See chart for claim 21, supra.
<b>26.</b> A method for obtaining information relevant to a first user comprising:	See chart for Claim 1.
searching for information relevant to a query associated with a first user in a plurality of users;	See chart for Claim 1(a)
receiving information found to be relevant to the query by other users;	See chart for Claim 1(b).
combining the information found to be relevant to the query by other users with the searched information; and	See chart for Claim 1(b).
content-based filtering the combined information for relevance to at least one of the query and the	See chart for Claim 1(c).

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Bowman
first user.	
<b>28.</b> The method of claim 26 further comprising the step of delivering the filtered information to the first user.	See chart for Claim 6, supra.
<b>38.</b> The method of claim 26 wherein the searching step comprises scanning a network in response to a demand search for the information relevant to the query associated with the first user.	See chart for Claim 1(a), supra.

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Bowman
<b>10.</b> [preamble] A search engine system comprising:	See chart for '664 Patent, Claim 1(preamble), supra.
[a] a system for scanning a network to make a demand search for informons relevant to a query from an individual user;	See chart for '664 Patent, Claim 1(a), supra.
[b] a content-based filter system for receiving the informons from the scanning system and for filtering the informons on the basis of applicable content profile data for relevance to the query; and	See chart for '664 Patent, Claim 1(c), supra.
[c] a feedback system for receiving collaborative feedback data from system users relative to informons considered by such users;	See chart for '664 Patent, Claim 1(b), supra.
[d] the filter system combining pertaining feedback data from the feedback system with the content profile data in filtering each informon for relevance to the query.	See chart for '664 Patent, Claim 1(c), supra.
14. The system of claim 10 wherein the collaborative feedback data comprises passive feedback data.	Bowman at 2:31-35 ("The scores in the rating table preferably reflect, for a particular item and term, how often users have selected the item when the item has been identified in query results produced for queries containing particular term.")
	Bowman at 7:31-33 (disclosing that user selections can comprise user requests to see more information about one or more of the search results presented to them).
	Bowman at 9:2-3 (disclosing that user selections can also comprise a request to purchase the item(s) corresponding to the search result(s))

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Bowman
	"In augmenting the item rating table 300, the facility identifies the selection of the item having item identifier '1883823064' from a query result produced by a query specifying the query terms 'human' and 'dynamics.' FIG. 4 shows the state of the item rating table after the item rating table is augmented by the facility to reflect this selection. It can be seen by comparing entry 405 in item rating table 400 to entry 305 in item rating table 300 that the facility has incremented the score for this entry from '45' to '46'. Similarly, the facility has incremented the rating score for this item identifier the term 'dynamics' from '22' to '23'. The facility augments the rating table in a similar manner for the other selections from query results that it identifies during the time period." Bowman at 6:26-40.
	"Various embodiments of the invention base rating scores on different kinds of selection actions performed by the users on items identified in query results. These include whether the user displayed additional information about an item, how much time the user spent viewing the additional information about the item, how many hyperlinks the user followed within the additional information about the item, whether the user added the item to his or her shopping basket, and whether the user ultimately purchased the item." Bowman at 3:17-23.
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 10:44-47.
	Tapestry at 62.
	GroupLens at 6, 10.

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Bowman	
	Loeb at 41.	
	Culliss at Abstract; 4:32-34.	
	Ryan at 9:22-30, 9:41-48.	
<b>15.</b> The system of claim <b>14</b> wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	See chart for Claim 14.	
<b>25.</b> A method for operating a search engine system comprising:	See chart for Claim 10(preamble).	
scanning a network to make a demand search for informons relevant to a query from an individual user;	See chart for Claim 10(a).	
receiving the informons in a content-based filter system from the scanning system and filtering the informons on the basis of applicable content profile data for relevance to the query;	See chart for Claim 10(b).	
receiving collaborative feedback data from system users relative to informons considered by such users; and	See chart for Claim 10(c).	
combining pertaining feedback data with the content profile data in filtering each informon for relevance to the query.	See chart for Claim 10(d).	
<b>27.</b> The method of claim <b>25</b> wherein the collaborative feedback data provides passive feedback data.	See chart for Claim 14.	

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Bowman
<b>28.</b> The method of claim <b>27</b> wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	See chart for Claim 15.

# Exhibit A-8

# U.S. Patent Claim Charts for the asserted '664 and '420 patents against U.S. Patent No. 6,006,222 ("Culliss")

To the extent that either I/P Engine argues or the Court finds that this reference does not explicitly teach certain limitations in the asserted claims, such limitations would have been inherent and/or obvious. This invalidity chart is based in whole or in part on Defendants' present understanding of the asserted claims, and I/P Engine's apparent construction of the claims in their Infringement Contentions. Defendants are not adopting I/P Engine's claim construction, nor admitting to the accuracy of any particular claim construction. To the extent that I/P Engine's apparent claim construction or applications thereof are reflected in this invalidity chart, nothing herein should be construed as an admission that Defendants agree with I/P Engine's apparent claim construction or I/P Engine's application of that claim construction in its Infringement Contentions.

Defendants identification of this publication as prior art herein under 35 U.S.C. §§102(a), (b), (e), and/or (g) and §103 includes the publication itself as well as the use of the products and systems described therein. Although Defendants' investigation continues, information available to date indicates that such products and systems were (1) known or used in the country before the alleged invention of the claimed subject matter of the asserted claims, (2) were in public use and/or on sale in this country more than one year before the filing date of the patent, and/or (3) were invented by another who did not abandon, suppress, or conceal, before the alleged invention of the claimed subject matter of the asserted claim. Upon information and belief, these prior art products and systems and their associated references anticipate and/or render obvious each of the asserted claims.

Defendants reserve all rights to amend their Invalidity Contentions if I/P Engine amends its Infringement Contentions.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
1. [preamble] A search system comprising:	See Culliss at 4:10-26 (explaining that Culliss' system accepts a search query from a user and returns squibs of articles that match the query)  "As users enter search queries and select articles, the scores are altered. The scores are then used in subsequent searches to organize the articles that match a search query." Culliss at Abstract.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss		
	"The present invention relates to search engines, and more particularly pertains to a method for organizing information by monitoring the search activity of users." Culliss at 1:17-20.		
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:		
	Herz at 6:42-58.		
	Lashkari at 59.		
	Tapestry at 63.		
	Balabanovic at 69-70.		
	GroupLens at 2.		
	Rose at 2:51-55.		
	Bowman at 5:31-32; claim 28[a-b]		
	Ryan at Abstract, 1:8-10, 1:20-23.		
[a] a scanning system for searching for information relevant to a query associated with a first user in a plurality of users;	"The search engine then identifies in any conceivable manner the articles which are associated with the matched key terms. This can be done by comparing all or part of the search query, or terms equivalent to those in the search query with the key terms in the index to identify the key terms which match the search query. The search engine may account for Boolean logic operators in the search query." Culliss at 4:12-15.		

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss	
	"The search engine then compares the search query with the key terms from the articles and retrieves at least a portion of the articles having key terms which match the search query. The search engine will then display to the user the portion of the article such as the title. The user can then scroll through these retrieved portions of the articles and select a desired article." Cullis at 1:44-47.  See also chart for claim 1(preamble), supra.	
[b] a feedback system for receiving information found to be relevant to the query by other users; and	"As users enter search queries and select articles, the scores are altered. The scores are then used in subsequent searches to organize the articles that match a search query." Culliss at Abstract	
	"Once the user has selected a matched article, and as shown in FIG. 1 at 40, the index can be altered such that the key term scores for the selected matched article under the matched key terms are altered relative to other key term scores." Culliss at 4:37-41.	
	"If the user selected only article A3, the key term scores for selected matched article A3 under the matched key term groupings Alpha-Gamma would be altered. Additionally, the key term scores for selected matched article A3 under the matched key term groupings Alpha-Alpha and Gamma-Gamma could also be altered since the key terms Alpha and Gamma are each represented individually in the results of the search query." Culliss at 7:60-67.	

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")							
				Index			-
		Alpha	Beta	Gamma	Delta	Epsilon	_
		A1 - : A2 - : A3 - :		A1 - 1 A3 - 1	A2 - 1 A3 - 1	A1 - 1 A3 - 1	_
		a are alter	ed relative	e to the oth			ey terms Alpha ne index would
			Index				
	Alpha	Beta	Gamma	Delta	Epsilon		
	A1 - 1 A2 - 1 A3 - 2	A1 - 1	A1 - 1 A3 - 2	A2 - 1 A3 - 1	A1 - 1 A3 - 1		
	matched ke key term so terms Alph scores for t	ey terms cores for to a and Gar he matched not) unde	ould also lesselected nate, and the articles of the mate.	oe altered. d matched the positive A1 and A3	If the posit article A3 e score is a (regardless	ive score is under the n dded to the ss of wheth	e A3 under the added to the natched key key term total er they were then look like

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss	
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:	
	Herz at 6:13-18, 10:44-47, 19:9-14; 23:45-24:13.	
	Lashkari at 59-60, 18.	
	Tapestry at 63.	
	GroupLens at 1, 2, 5-10.	
	Rose at 6:59-7:10.	
	Bowman at Abstract, claim 28[c], 2:32-34.	
	Ryan at 2:31-37.	
[c] a content-based filter system for combining the information from the feedback system with the information from the scanning system and for filtering the combined information for relevance.	Culliss at 14:34-36 (disclosing that a key term score for a search result may be initially determined by the content of the search result – namely, how many times the key term appears in the search result's content.)	
filtering the combined information for relevance to at least one of the query and the first user.	Culliss at 13:35-42 ("the comparison scores could be continuously combined with the ranking provided by the search engine to supplement or correct such a ranking. For example, the search engine may rank or organize the articles by providing a relevancy score, such ad the percentile relevancy provided by the search engines 'Excite' TM or 'Lycos' TM.	
	"To this end, the key term scores of each matched article under each of the matched key terms of the new search could then be associated in any possible	

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
	manner to create a comparison score for each matched article. For example, the key term scores could be added, multiplied together or averaged to create the comparison score for that matched article." Culliss at 5:1-5.
	"For the next search by either the same or a different user, the invention could then rank the matched articles by using the key term scores, as shown in FIG. 1 at 50 and 60. To this end, the key term scores of each matched article under each of the matched key terms of the new search could then be associated in any possible manner to create a comparison score for each matched article." Culliss at 4:65-5:3.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
	Receive First Search Query from First User and Identify Related Articles
	Present Articles Related to First Search Query to First User
	Allow First User to Select One or More Articles
	Alter Scores in Index According to Selections Made by First User
	50 Receive Search Query from Second User
	Present Articles Related to Second Search Query to Second User Ranked by Scores in Index
	FIGURE 1
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 18:39-43.
	Lashkari at 15-16, 60.
	Tapestry at 61, 63.
	Balabanovic at 69, 66.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss	
	GroupLens at 2, 3.	
	Rose at Abstract, 6:5-11	
	Bowman at 9:28-53; claim 29.	
	Ryan at 1:59-66, 23:38-49.	
<b>5.</b> The search system of claim <b>1</b> wherein the filtered information is an advertisement.	"For example, the user may enter the category key terms "Apartments" and "Los Angeles" or the category key terms "Romantic" and "Comedy" to find articles (i.e. advertisements or movies) which fall under two or more category key terms." Culliss at 9:58-62.	
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. <i>See, e.g.</i> :	
	Herz at 61:4-18.	
	Bowman at 5:4, 9:2-3, claim 7.	
	Ryan at 4:57-59, 22:49-55.	
<b>6.</b> The search system of claim <b>1</b> further comprising an information delivery system for delivering the filtered information to the first user.	Culliss at 4:25-31 ("As shown in FIG. 1 at <b>20</b> , the search engine will then display a squib of each of the matched articles the user can then scroll through the squibs of the articles and select a desired one")	
user.	"The matched articles can then be displayed to the user in order of comparison score superiority, such as by displaying the matched article with the highest comparison score first." Culliss at 5:7-10.	

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
	"The invention could then display the article A3 to the user in a superior position to article A1 because the comparison score for matched article A3 is higher." Culliss at 6:42-45.
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:13-18, Fig. 10 at 1106.
	GroupLens at 10, 11.
	Rose at Abstract.
	Bowman at 9:56-58.
	Ryan at 21:14-26, 23:47-49.
21. The search system of claim 1 wherein the content-based filter system filters by extracting features from the information.	Culliss at 14:34-36 (disclosing that Culliss extracts words from the content of each search result in order to determine how often the words from the query are found in these search results.)
	"The articles are each associated with one or more of these key terms by any conceivable method of association, such as through indexing all words or through meta-tag headers containing key words selected by the author or editor." Cullis at 3:61:63.
	"The squib may comprise any portion, hypertext link to or representation of the matched article, such as the title, headings, first few lines of text, audio, video or any other type of information." Cullis at 14:47-50.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:18-29.
	Lashkari at 15-16, 60.
	Tapestry at 67.
	Balabanovic at 69.
	GroupLens at 3.
	Rose at 2:35-38; 6:10-25.
	Bowman at 9:50-53; claim 29.
	Ryan at 16:4-9.
22. The search system of claim 21 wherein the extracted features comprise content data indicative of the relevance to the at least one of the query and the user.	See chart for Claim 21, supra.
<b>26.</b> A method for obtaining information relevant to a first user comprising:	See chart for Claim 1.
searching for information relevant to a query associated with a first user in a plurality of users;	See chart for Claim 1(a)
receiving information found to be relevant to the	See chart for Claim 1(b).

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Culliss
query by other users;	
combining the information found to be relevant to the query by other users with the searched information; and	See chart for Claim 1(b).
content-based filtering the combined information for relevance to at least one of the query and the first user.	See chart for Claim 1(c).
<b>28.</b> The method of claim 26 further comprising the step of delivering the filtered information to the first user.	See chart for Claim 6, supra.
<b>38.</b> The method of claim 26 wherein the searching step comprises scanning a network in response to a demand search for the information relevant to the query associated with the first user.	See chart for Claim 1(a), supra.

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Culliss patent Reference
<b>10.</b> [preamble] A search engine system comprising:	See chart for '664 Patent, Claim 1(a), supra.
[a] a system for scanning a network to make a demand search for informons relevant to a query from an individual user;	See chart for '664 Patent, Claim 1(a), supra.
[b] a content-based filter system for receiving the informons from the scanning system and for filtering the informons on the basis of applicable content profile data for relevance to the query; and	See chart for '664 Patent, Claim 1(c), supra.
[c] a feedback system for receiving collaborative feedback data from system users relative to informons considered by such users;	See chart for '664 Patent, Claim 1(b), supra.
[d] the filter system combining pertaining feedback data from the feedback system with the content profile data in filtering each informon for relevance to the query.	See chart for '664 Patent, Claim 1(c), supra.
14. The system of claim 10 wherein the collaborative feedback data comprises passive feedback data.	Culliss at Abstract ("As users enter search queries and select articles, the scores are altered")  Culliss at 4:32-34 (disclosing that Culliss passively monitors whether the user performs such selection actions as "opening, retrieving, reading, viewing, listening to or otherwise closely inspecting the article.")
	"Once the user has selected a matched article, and as shown in FIG. 1 at 40, the index can be altered such that the key term scores for the selected matched article under the matched key terms are altered relative to other key term scores." Culliss at 4:37-41.

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Culliss patent Reference
	"For example, if the user selected only article A3 after executing a search query containing the rating key term X-Rated, the key term score for article A3 under the rating key term X-Rated would be altered relative to the other rating key term scores." Culliss at 11:45-53.  To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:  Herz at 10:44-47.
	Tapestry at 62.
	GroupLens at 6, 10.
	Bowman at 2:31-35; 7:31-33; 9:2-3.
	Ryan at 9:22-30, 9:41-48.
<b>15.</b> The system of claim <b>14</b> wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	See chart for Claim 14, supra.
<b>25.</b> A method for operating a search engine system comprising:	See chart for Claim 10(a).
scanning a network to make a demand search for informons relevant to a query from an individual user;	See chart for Claim 10(a).
receiving the informons in a content-based filter	See chart for Claim 10(b).

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Culliss patent Reference
system from the scanning system and filtering the informons on the basis of applicable content profile data for relevance to the query;	
receiving collaborative feedback data from system users relative to informons considered by such users; and	See chart for Claim 10(c).
combining pertaining feedback data with the content profile data in filtering each informon for relevance to the query.	See chart for Claim 10(d).
<b>27.</b> The method of claim <b>25</b> wherein the collaborative feedback data provides passive feedback data.	See chart for Claim 14.
<b>28.</b> The method of claim <b>27</b> wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	See chart for Claim 15.

## Exhibit A-9

## U.S. Patent Claim Charts for the asserted '664 and '420 patents against U.S. Patent No. 6,421,675 ("Ryan")

To the extent that either I/P Engine argues or the Court finds that this reference does not explicitly teach certain limitations in the asserted claims, such limitations would have been inherent and/or obvious. This invalidity chart is based in whole or in part on Defendants' present understanding of the asserted claims, and I/P Engine's apparent construction of the claims in their Infringement Contentions. Defendants are not adopting I/P Engine's claim construction, nor admitting to the accuracy of any particular claim construction. To the extent that I/P Engine's apparent claim construction or applications thereof are reflected in this invalidity chart, nothing herein should be construed as an admission that Defendants agree with I/P Engine's apparent claim construction or I/P Engine's application of that claim construction in its Infringement Contentions.

Defendants identification of this publication as prior art herein under 35 U.S.C. §§102(a), (b), (e), and/or (g) and §103 includes the publication itself as well as the use of the products and systems described therein. Although Defendants' investigation continues, information available to date indicates that such products and systems were (1) known or used in the country before the alleged invention of the claimed subject matter of the asserted claims, (2) were in public use and/or on sale in this country more than one year before the filing date of the patent, and/or (3) were invented by another who did not abandon, suppress, or conceal, before the alleged invention of the claimed subject matter of the asserted claim. Upon information and belief, these prior art products and systems and their associated references anticipate and/or render obvious each of the asserted claims.

Defendants reserve all rights to amend their Invalidity Contentions if I/P Engine amends its Infringement Contentions.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
1. [preamble] A search system comprising:	Ryan Abstract: "The present invention provides for a method of updatig an internet search engine database with the results of a user's selection of specific web page listings from the general web page listing provided to the user as a result of his initial keyword search entry. By updating the database with the selections of many different users, the database can be updated to prioritize those web listings that have been selected the most with respect to a given

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	keyword, and thereby presenting first the most popular web page listings in a subsequent search using the same keyword search entry."
	Ryan at 1:8-10: "The present invention relates to a method and apparatus that allows for enhanced database searching, and more particularly; for use as an internet search engine."
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:42-58.
	Lashkari at 59.
	Tapestry at 63.
	Balabanovic at 69-70.
	GroupLens at 2.
	Culliss at Abstract, 4:20-26.
	Bowman at 5:31-32; claim 28[a-b]
	Rose at 2:51-55, claim 26.
[a] a scanning system for searching for information relevant to a query associated with a first user in a plurality of users;	Ryan at 1:23-31: "The search command is transmitted to a server computer, the has a search engine associated with the server computer. The search engine receives the search command, and then using it scans for these key words through a database of web addresses and the text stored on the web sites.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Thereafter, the results of the scan are transmitted from the server computer back to the user's computer and displayed on the screen of the user's computer."
	Ryan at 1:32-40: "In order for the search engine to be aware of new web sites and to update its records of existing sites, either the proprietors of the web sites notify the search engine themselves or the information may be obtained via a `web crawler` to update the database at the server computer. A web crawler is an automated program which explores and records the contents of a web site and its inks to other sites, thereby spreading between sites in an attempt to index all the current sites."
	Ryan at 8:52-57: "Step 114, discussed in detail hereinafter, is the process of selecting web pages from novel new search engine data sets produced in accordance with the present invention. This can run, if desired, in parallel with step 116 which obtains a selection of web pages from other existing search engines."
	Fig. 1B:

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	User Site/ Computer 100A  User Site/ Computer 100B  Developer Site/ Site/ Scomputer 104A
	Server 102B  User Site/ Computer 104B  User Site/ Computer 100C  Figure 1B  Server 102B  Developer Site/ Computer 104B
	See also chart for claim 1(preamble), supra.
[b] a feedback system for receiving information	Ryan at 2:31-37: "By updating the database with the selections of many

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
found to be relevant to the query by other users; and	different users, the database can be updated to prioritize those web listings that have been selected the most with respect to a given keyword, and hereby presenting first the most popular web page listings in a subsequent search using the same keyword search entry."
	Ryan at 9:17-30: "Depending on the relevance of the site, the user may spend time reading, downloading, exploring further pages, embedded links and so forth, or if the site appears irrelevant/uninteresting, the user may return directly back to the search results after a short period. The time difference between the two selections is recorded as the difference between two date/time data 132 from subsequent selections from the list of web page searches (in this embodiment one can only measure the time spent at one web page if another selection is made after visiting that web pagethis then provides another surfer trace 132 which allow a time difference to be calculated). This surfer trace data on the popularity of web pages is used to the subsequent searches, as described further hereinafter."
	Ryan at 9:39-44: "As described above, human brain power is captured by recording which web pages the user goes to after each keyword search. According to the present invention, collecting the surfer trace data is achieved by sending, in the list of web pages generated by the search to the user, hidden links that will automatically send information back to the search engine (or a subsidiary server)."
	Ryan at 10:7-41: "Thus, the search results page according to the present invention is therefore differently formatted from conventional search engines' results pages. The difference is in action rather than content. Visually, the page looks the same to the user as standard search results from other search engines. An example illustrates this point: In a conventional search the results page for a search of the keyword "Weather" may read: 1. www.weather.com Today's weather forecast. Today is expected to be fine ad sunny everywhere. The

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	HTTP link associated with the "www.weather.com" label is "http:l/www.weather.com". This means that if the user selects this link, they will navigate to this page directly. In contrast, according to the present invention, the tagged result page for the search made suing the keyword "Weather" may read 1. www.weather com Today's weather forecast. Today is expected to be fine and sunny everywhere. The HTTP link associated with the "www.weather.com" label is link.asp?n=1." If the user selects this link, therefore, in a process is invisible to the user, the user is first directed to the link asp page on the site corresponding to the web server using the search engine 10 according to the present invention, and pass parameter n with value 1. Server side code (application code that runs on the web server) uses this parameter to identify Me URL and description of the user's chosen site, This information is then stored in a database Table along wit other surfer trace data. The server side code then executes a redirect operation to the user's required URL. The user then sees their required page appear. The source of search results is independent to this activity. The destination page of the user is independent of this activity. The process is one of recording a user keyword and destination into a database. This method of tracking can only record the initial web-page visited after a keyword search. If the user continues to return to the search results list then subsequent web-page visits can be recorded."
	Ryan at 10:54-58: "As previously mentioned, the surfer trace data that can be collected includes keyword 124, URL 126, user ID 128, IP address 130, date-time 132, brief web page description 134, and is identified as such since it provides a trace or record of how searchers (surfers) use the search engine."
	Ryan at 12:16-60: "Keyword URL Link Table (172) The contents of keyword URL lilt table 172 of FIG. 4 are shown in more detail in Table 3 shown below. This table is of particular significance with respect to the present invention because it contain information about the inks between information supplies (URL addresses or web pages) and information requests

onship between ving three para h URL addres weighting factor and is er of significant referred to a tof the creation factor Z). tted a web-pagand URL add	the Key ameters. the ses correstor X). This is determined visits many and or inputation of the second of the secon	words and the cumulation of th	ative num to each ke asure of the asure of the actor Y) a said web- in which gine. Not ta for X,	ences as daber of sigey-word (he popula traces, the ier predete date time page(here a web-page) all comb Y and Z.	nificant visits (hits) herein referred to as rity of the URL for previous cumulative ermined instant; e factor relating to the ein referred to as Z of
etween information	n suppliers (v	web-naees) a	and informat	ion requests	
Links between information suppliers (web-pages) and information requests (key-words)					
Key-word	Key-word	Key-word	Key-word	Key-word	
X, Y, Z  2  3  X, Y, Z  6	X, Y, Z	X, Y, Z	X, Y, Z	X, Y, Z	
1 2 2 2	X, Y, Z  X, Y, Z  X, Y, Z	Key-word Key-word  X, Y, Z	Key-word   Key-word   Key-word   X, Y, Z   1	Key-word Key-word Key-word X, Y, Z	Key-word   Key-word   Key-word   Key-word   Key-word

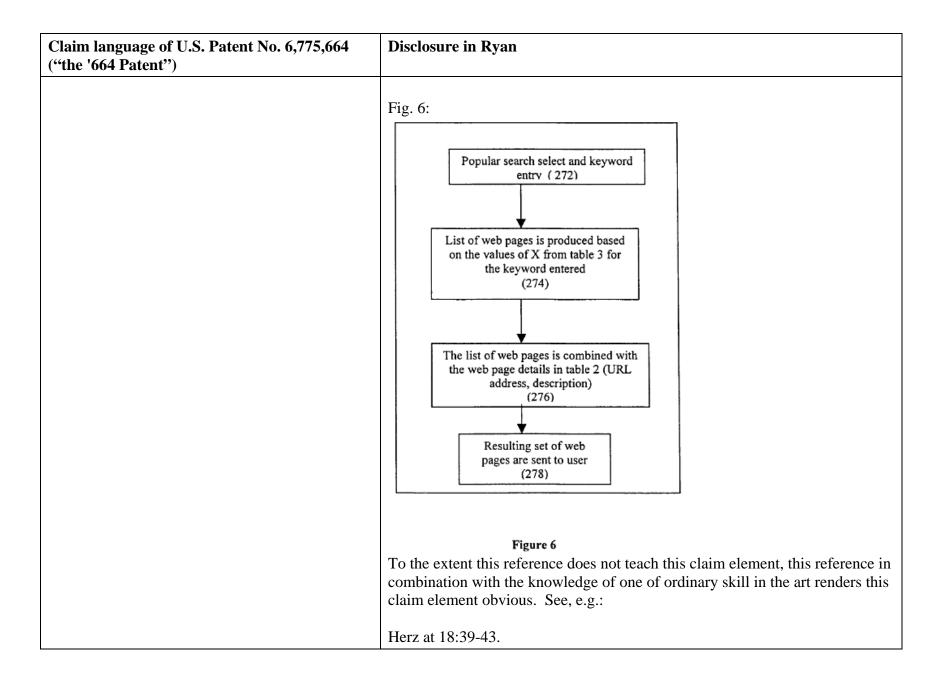
Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	link ("useful visit" or "hit") between a keyword and a URL would be to count each keyword, URL paring in a surfer trace as a "hit". A more meaningful and sophisticated method is only to count a location selection as a valid if the user meets certain criteria. This criterion could be the user exceeding a specified time at a location. If this criterion was not met, the selection would not be increase the cumulative value of X in Table 3. It is also possible to increment the value of X based on the time spent at the web page. The longer the time spent the more this increments the value of X. X does not have to be a whole number."

8

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Key-words
	Search Engine/database Updated Users choice hit list used for next search.
	Hit-list of ranked locations  Users Choice hit-list updated by Surfer trace
	User selections from hit list  Surfer-trace formed from of valid user selections
	End of Search
	Figure 3B
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:

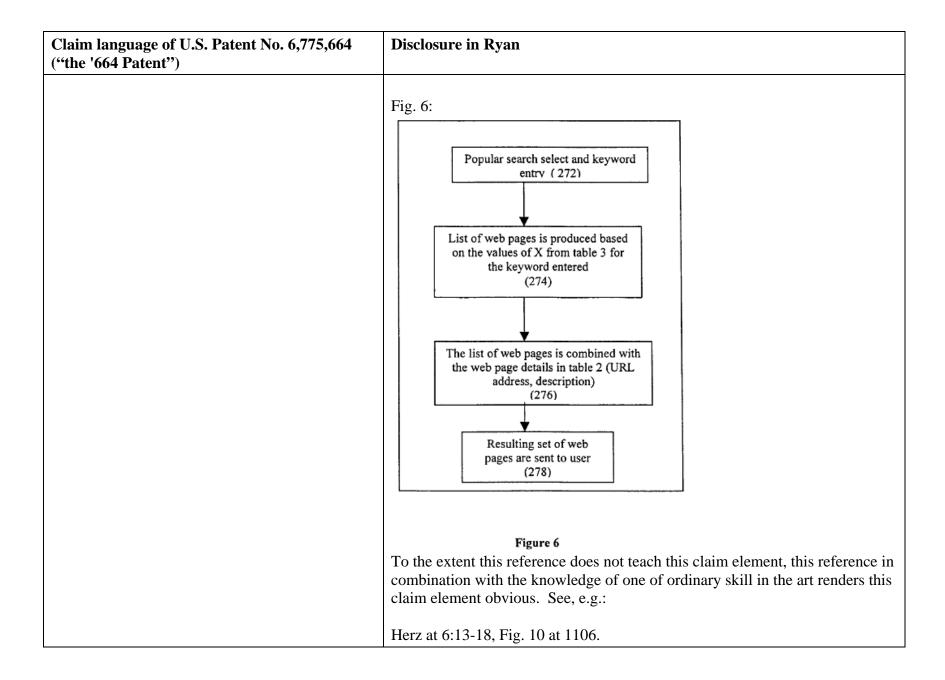
Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Herz at 6:13-18, 10:44-47, 19:9-14; 23:45-24:13.
	Lashkari at 59-60, 18.
	Tapestry at 63.
	GroupLens at 1, 2, 5-10.
	Culliss at Abstract; 4:37-41.
	Bowman at Abstract, claim 28[c], 2:32-34.
	Rose at 6:59-7:10.
[c] a content-based filter system for combining the information from the feedback system with the information from the scanning system and for filtering the combined information for relevance to at least one of the query and the first user.	Ryan at 1:59-66: "These results are in the form of a list, ranked according to criteria specific to the search engine. These criteria may range from the number of occurrences of the key-words anywhere within the searched text, to methods giving a weighting to key-words used in particular positions (as previously mentioned). When multiple key-words have been used, sites are also ranked according to the number of different key-words applicable."
	Ryan at 13:8-18: "In his example the global popularity (using the general profile type) for the Rugby and Basketball URL addresses are 520 and 4000 respectively and 52 and 20 respectively for the New Zealand profile type. When the general profile type setting is used (ranked based on X1), the Basketball site would be ranked at the top. When the New Zealand setting is chosen (ranked based on X:2) the rugby site would be highest. This would be a reflection of the preferences of the New Zealanders. This is a very simple method of storing the preference of different groups of people."

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	Ryan at 20:30-45: "The numbers (X, Y and Z) in Table 3, which correspond to keyword URL link table 172 in FIG. 5 contain all the information required to give the following types of searches 58: Popular-list search ranked hit-list of the most popular URLs for that keyword based on the number X Hot off the press search ranked hit-list of newest URLs for the keyword based on the date/time (Z) High-flyers search ranked hit-list of best emerging URLs based the difference between X and Y Random search hit-list that is a random sample of URLs that have any of the numbers X, Y or Z Date created search this is hit-list based on the date time Z and the user-specified date of interest (not just the newest)."
	Ryan at 21:14-26: "FIG. 6 illustrates the process for determining a list of popular web pages associated with the entry of a keyword 270 in step 272. If this search is selected and a keyword is entered, step 274 follows and produces a list of web pages based on the values of X taken from Table 3 (172, FIG. 5) for the keyword 270 entered. These web pages are identified by a unique web-page(URL) number from Table 3. Thereafter, in step 276 the list of web-page numbers found from step 274 is combined with the URL address and web-page description from Table 2 (188 FIG. 5). In step 278 the resulting list of web pages is then tagged, depending on the results of step 246 in FIG. 5 as described previously, and sent to the user for them to make their selections."
	Ryan at 23:38-49: "Upon entry of a keyword in step 402, that keyword is used to select from a combination of web page selections associated with that keyword. A shown, for example, in step 404, an equally weighted combination of conventional, popular, highflier, new and past search results is used to obtain a list of web page numbers. Thereafter, in step 406 the list of web-page numbers found from step 404 is combined with the URL address and web-page description from Table 2 (188 FIG. 5). In step 408 the resulting list of web pages is then tagged, depending on the results of step 246 in FIG. 5 as described previously, and sent to the user for them to make their selections."



Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Lashkari at 15-16, 60.
	Tapestry at 61, 63.
	Balabanovic at 69, 66.
	GroupLens at 2, 3.
	Culliss at 14:34-36, 13:35-42.
	Bowman at 9:28-53; claim 29.
	Rose at Abstract.
<b>5.</b> The search system of claim <b>1</b> wherein the filtered information is an advertisement.	Ryan at 4:57-59: "Another novel feature of the present invention, which indirectly inures to the benefit of the end user, directly benefits the advertiser, because it allows for content to be targeted in real time based upon various criteria. As will be described more fully hereinafter, a content providing algorithm is initially selected which will determine how content is selected in step 34. Step 36 follows, and based upon inputs from users and content providers, which content to show is determined. Thereafter, the advertisements are displayed for the user to see, simultaneously with the display of either keywords and/or web pages."
	Ryan at 7:8-13: "Content Provider's list: This is a list (associated with each key-word) of content providers which must typically [that] pay to illustrate content with the key-word. The price paid is dependent on the number of other content providers, the amount they spend and the number of times the key word is searched for."

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Ryan at 22:49-55: "This is a list of content, such as advertisements, associated with the key-word, which the user cannot control. The ones that have paid the most will be at the top of the list, as described further hereinafter, in accordance with the preferred embodiment of the invention. Of course, other systems for identifying the order of paying content providers can also be implemented."
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. <i>See, e.g.</i> :
	Herz at 61:4-18.
	Culliss at 9:58-62.
	Bowman at 5:4, 9:2-3, claim 7.
6. The search system of claim 1 further comprising an information delivery system for delivering the filtered information to the first user.	Ryan at 21:14-26: "FIG. 6 illustrates the process for determining a list of popular web pages associated with the entry of a keyword 270 in step 272. If this search is selected and a keyword is entered, step 274 follows and produces a list of web pages based on the values of X taken from Table 3 (172, FIG. 5) for the keyword 270 entered. These web pages are identified by a unique web-page(URL) number from Table 3. Thereafter, in step 276 the list of web-page numbers found from step 274 is combined with the URL address and web-page description from Table 2 (188 FIG. 5). In step 278 the resulting list of web pages is then tagged, depending on the results of step 246 in FIG. 5 as described previously, and sent to the user for them to make their selections."
	Ryan at 23:47-49: "In step 408 the resulting list of web pages is then tagged, depending on the results of step 246 in FIG. 5 as described previously, and sent to the user for them to make their selections."



Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	GroupLens at 10, 11.
	Culliss at 4:25-31.
	Bowman at 9:56-58.
	Rose at Abstract.
21. The search system of claim 1 wherein the content-based filter system filters by extracting features from the information.	Ryan at 16:4-9: "[W]eb crawlers may also add URL addresses and descriptions (the description is either the first few lines of the web-page or in the HTML coded "title"). This is not an essential element of the system but it could be a method to obtain URL's and descriptions. With this search system web crawlers are more likely to be used to verify the information rather than find new information."
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 6:18-29.
	Lashkari at 15-16, 60.
	Tapestry at 67.
	Balabanovic at 69.
	GroupLens at 3.
	Culliss at 14:34-36.

Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	Bowman at 9:50-53; claim 29.
	Rose at 2:35-38.
<b>22.</b> The search system of claim <b>21</b> wherein the extracted features comprise content data indicative of the relevance to the at least one of the query and the user.	See chart for Claim 1(c) and Claim 21.
<b>26.</b> A method for obtaining information relevant to a first user comprising:	See chart for Claim 1.
searching for information relevant to a query associated with a first user in a plurality of users;	See chart for Claim 1(a)
receiving information found to be relevant to the query by other users;	See chart for Claim 1(b).
combining the information found to be relevant to the query by other users with the searched information; and	See chart for Claim 1(b).
content-based filtering the combined information for relevance to at least one of the query and the first user.	See chart for Claim 1(c).
<b>28.</b> The method of claim 26 further comprising the step of delivering the filtered information to the first user.	See chart for Claim 6, supra.
<b>38.</b> The method of claim 26 wherein the searching step comprises scanning a network in response to a demand search for the information relevant to the query associated with the first	See chart for Claim 1(a), supra.

- 1	Claim language of U.S. Patent No. 6,775,664 ("the '664 Patent")	Disclosure in Ryan
	user.	

Disclosure in Ryan
See chart for '664 Patent, Claim 1(a), supra.
See chart for '664 Patent, Claim 1(a), supra.
See chart for '664 Patent, Claim 1(c), supra.
See chart for '664 Patent, Claim 1(b), supra.
See chart for '664 Patent, Claim 1(c), supra.
Ryan at 9:22-30: "The time difference between the two selections is recorded as the difference between two date/time data 132 from subsequent selections from the list of web page searches (in this embodiment one can only measure the time spent at one web page if another selection is made after visiting that web pagethis then provides another surfer trace 132 which allow a time difference to be calculated). This surfer trace data on the popularity of web pages is used to the subsequent searches, as described further hereinafter."  Ryan at 9:41-48: "According to the present invention, collecting the surfer trace data is achieved by sending, in the list of web pages generated by the search to the user, hidden links that will automatically send information back

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Ryan
	to the search engine (or a subsidiary server). While the user only sees that his intended link is displayed, the hidden link notifies the search engine of the transfer, which process can be executed with a Java applet."
	To the extent this reference does not teach this claim element, this reference in combination with the knowledge of one of ordinary skill in the art renders this claim element obvious. See, e.g.:
	Herz at 10:44-47.
	Tapestry at 62.
	GroupLens at 6, 10.
	Loeb at 41.
	Culliss at Abstract; 4:32-34.
	Bowman at 2:31-35; 7:31-33; 9:2-3.
	Culliss at Abstract; 4:32-34.
	Ryan at 9:22-30, 9:41-48.
15. The system of claim 14 wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	Ryan at 9:22-30: "The time difference between the two selections is recorded as the difference between two date/time data 132 from subsequent selections from the list of web page searches (in this embodiment one can only measure the time spent at one web page if another selection is made after visiting that web pagethis then provides another surfer trace 132 which allow a time difference to be calculated). This surfer trace data on the popularity of web pages is used to the subsequent searches, as described further hereinafter."

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Ryan
	Ryan at 9:41-48: "According to the present invention, collecting the surfer trace data is achieved by sending, in the list of web pages generated by the search to the user, hidden links that will automatically send information back to the search engine (or a subsidiary server). While the user only sees that his intended link is displayed, the hidden link notifies the search engine of the transfer, which process can be executed with a Java applet."  Ryan at 9:62-65: "In one specific embodiment, the user must visit a particular web site for greater than a predetermined period of time, such as one minute or fifteen minutes, depending on what is an appropriate time to have looked at the site."  See also chart for claim 14, supra.
<b>25.</b> A method for operating a search engine system comprising:	See chart for Claim 10(a).
scanning a network to make a demand search for informons relevant to a query from an individual user;	See chart for Claim 10(a).
receiving the informons in a content-based filter system from the scanning system and filtering the informons on the basis of applicable content profile data for relevance to the query;	See chart for Claim 10(b).
receiving collaborative feedback data from system users relative to informons considered by such users; and	See chart for Claim 10(c).
combining pertaining feedback data with the content profile data in filtering each informon for relevance to the query.	See chart for Claim 10(d).

Claim language of U.S. Patent No. 6,314,420 ("the '420 Patent")	Disclosure in Ryan
<b>27.</b> The method of claim <b>25</b> wherein the collaborative feedback data provides passive feedback data.	See chart for Claim 14.
<b>28.</b> The method of claim <b>27</b> wherein the passive feedback data is obtained by passively monitoring the actual response to a proposed informon.	See chart for Claim 15.