

EXHIBIT J

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ROCKSTAR CONSORTIUM US LP)
AND NETSTAR TECHNOLOGIES LLC,)
)
Plaintiffs,)
) Civil Action No. 13-cv-00893-RG
v.)
)
GOOGLE INC.)
)
Defendant.)
)
)

DEFENDANT GOOGLE INC.’S INVALIDITY CONTENTIONS

I. INTRODUCTION

Pursuant to Rule 3-3 of the Local Patent Rules (“P.R.”) of the Eastern District of Texas and the Scheduling Order governing this action (D.I. 68), defendant Google Inc. (“Google”) hereby provides its Invalidity Contentions with respect to the asserted claims identified by plaintiffs Rockstar Consortium US LP and Netstar Technologies LLC (collectively “Rockstar”) in its Disclosure of Asserted Claims and Infringement Contentions dated March 24, 2014. The asserted claims are claim 1 of U.S. Patent No. 6,098,065 (“065 patent”); claims 1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, and 23 of U.S. Patent No. 7,236,969 B1 (“969 patent”); claims 1, 3, 4, 5, 6, 7, 8, 9, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, and 25 of U.S. Patent No. 7,469,245 B2 (“245 patent”); claims 1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, and 47 of U.S. Patent No. 7,672,970 B2 (“970 patent”); claims 1, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 17, and 18 of U.S. Patent No. 7,895,178 B2 (“178 patent”); claims 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, and 20 of U.S. Patent No. 7,895,183 B2 (“183 patent”);

and claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, and 28 of U.S. Patent No. 7,933,883 B2 (“883 patent”) (collectively the “asserted claims”).

With respect to each asserted claim and based on its investigation to date, Google hereby:

- (a) identifies each currently known item of prior art that either anticipates or renders obvious each asserted claim;
- (b) specifies whether each such item of prior art (or a combination of several of the same) anticipates each asserted claim or renders it obvious;
- (c) submits a chart identifying where each element in each asserted claim is disclosed, described, or taught in the prior art, including for each element that is governed by 35 U.S.C. § 112 ¶ 6, the identity of the structure(s), act(s), or material(s) in each item of prior art that performs the claimed function; and
- (d) identifies the grounds for invalidating asserted claims based on indefiniteness under 35 U.S.C. § 112(2) or enablement or written description under 35 U.S.C. § 112(1).

In addition, pursuant to P.R. 3-4(a) and (b) and based on its investigation to date, Google has produced documents in its possession, custody, or control.

II. RESERVATIONS

Consistent with P.R. 3-6 and the Discovery Order in this case (D.I. 69), Google reserves the right to amend these Invalidity Contentions. The information and documents that Google produces is provisional and subject to further revision as follows. Google expressly reserves the right to amend the disclosures and document production herein should Rockstar provide any information that it failed to provide in its P.R. 3-1 and 3-2 disclosures or should Rockstar amend its P.R. 3-1 or 3-2 disclosures in any way, whether explicitly or implicitly. Further, because limited discovery has only recently begun and because Google has not yet completed its search for and analysis of relevant prior art, Google reserves the right to revise, amend, and/or supplement the information provided herein, including identifying and relying on additional

references, should Google's further search and analysis yield additional information or references, consistent with the Patent Rules and the Federal Rules of Civil Procedure. Moreover, Google reserves the right to revise its ultimate contentions concerning the invalidity of the claims of the asserted patents, which may change depending upon the Court's construction of the claims of the asserted patents, any findings as to the priority dates of the asserted patents, and/or positions that Rockstar or its expert witness(es) may take concerning claim interpretation, infringement, and/or invalidity issues.

Prior art not included in this disclosure, whether known or not known to Google may become relevant. In particular, Google is currently unaware of the extent, if any, to which Rockstar will contend that limitations of the asserted claims are not disclosed in the prior art identified by Google, particularly given that Rockstar has asserted 144 claims against Google. To the extent that such an issue arises, Google reserves the right to identify other references that would have made the addition of the allegedly missing limitation to the disclosed device or method obvious.

Moreover, the mere fact that Rockstar has raised so many claims and has refused to narrow the claims has prejudiced Google and hindered its ability to do a full and complete analysis. It is notable that Rockstar refused to reduce the number of asserted claims and provided no commitment to do so. If and when Rockstar ultimately does so, Google reserves its right to conduct a more targeted search and to provide further contentions as appropriate and needed.

Google's claim charts in Exhibits A-1 to A-39 cite to particular teachings and disclosures of the prior art as applied to features of the asserted claims. However, persons having ordinary skill in the art generally may view an item of prior art in the context of other publications,

literature, products, and understanding. As such, the cited portions are only examples, and Google reserves the right to rely on un-cited portions of the prior art references and on other publications and expert testimony as aids in understanding and interpreting the cited portions, as providing context thereto, and as additional evidence that the prior art discloses a claim limitation. Google further reserves the right to rely on un-cited portions of the prior art references, other publications, and testimony to establish bases for combinations of certain cited references that render the asserted claims obvious.

The references discussed in the claim charts in Exhibits A-1 to A-39 may disclose the elements of the asserted claims explicitly and/or inherently, and/or they may be relied upon to show the state of the art in the relevant time frame. The suggested obviousness combinations are provided in the alternative to Google's anticipation contentions and are not to be construed to suggest that any reference included in the combinations is not by itself anticipatory.

For purposes of these Invalidity Contentions, Google identifies prior art references and provides element-by-element claim charts based in part on the apparent constructions of the asserted claims advanced by Rockstar in its Infringement Contentions, which Google has already detailed are inadequate. Nothing stated herein shall be treated as an admission or suggestion that Google agrees with Rockstar regarding either the scope of any of the asserted claims or the claim constructions advanced by it in its Infringement Contentions. Moreover, nothing in these Invalidity Contentions shall be treated as an admission that Google's accused technology meets any limitations of the claims. Further, nothing in these Invalidity Contentions shall be treated as an admission of the date of conception or reduction to practice for the asserted claims.

Depending on the Court's construction of the claims of the asserted patents, and/or positions that Rockstar or its expert witness(es) may take concerning claim interpretation, the

date of conception or reduction to practice of the asserted claims, infringement, and/or invalidity issues, different ones of the charted prior art references in Exhibits A-1 to A-39 may be of greater or lesser relevance and different combinations of these references may be implicated. Given this uncertainty, the charts may reflect alternative applications of the prior art against the asserted claims.

Pursuant to P.R. 3-3 and 3-4, Google has provided disclosures and related documents pertaining only to the asserted claims as identified by Rockstar in its Infringement Contentions. Google reserves the right to modify, amend, or supplement these Invalidity Contentions to show the invalidity of any additional claims that the Court may allow Rockstar to later assert. Google further reserves the right to supplement its P.R. 3-4 document production should it later find additional, responsive documents.

III. INVALIDITY CONTENTIONS

A. Identification of Prior Art Pursuant to P.R. 3-3(a)

In addition to the prior art identified in the prosecution history of the asserted patents, Google intends to rely upon the prior art identified pursuant to P.R. 3-3(a) in Exhibit C to these Invalidity Contentions. Exhibit C provides the full identity of each item of prior art, including: (1) each patent by its patent number, country of origin, and date of issue; (2) each non-patent publication by its title, date of publication, and, where feasible, author and publisher; (3) 35 U.S.C. § 102(b) prior art by the item offered for sale or publicly used or known, the date the offer or use took place or the information became known, and the identity of the person or entity which made the use or which made and received the offer, or the person or entity which made the information known or to whom it was made known; and (4) 35 U.S.C. § 102(g) prior art by

the identities of the person(s) or entities involved in and the circumstances surrounding the making of the invention before the patent applicant.

Google's identification of patents and publications as prior art herein and in the attached charts under 35 U.S.C. §§102(a), (b), (e), and/or (g) and §103 includes the publications themselves as well as the use of the products and systems, and use thereof, described therein. Although Google's 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.

Google reserves the right to assert that the asserted patents are invalid under 35 U.S.C. §102(f) in the event Google obtains evidence that Richard Prescott Skillen and Frederick Caldwell Livermore, the named inventors of the asserted patents, did not invent (either together or in conjunction with other parties) the subject matter claimed in the asserted patents. Should Google obtain such evidence, it will provide the name of the person(s) from whom and the circumstances under which the invention or any part of it was derived.

Google further intends to rely on inventor admissions concerning the scope of the prior art relevant to the asserted patents found in, *inter alia*: the patent prosecution histories for the asserted patents and related patents, patent applications, and/or re-examinations; any deposition

testimony of the named inventors on the asserted patents; and the papers filed and any evidence submitted by Rockstar in conjunction with this litigation.

Discovery is ongoing, and Google’s prior art investigation and third party discovery is therefore not yet complete. Google reserves the right to present additional items of prior art under 35 U.S.C. § 102(a), (b), (e), and/or (g), and/or § 103 located during the course of discovery or further investigation. For example, Google expects to issue subpoenas to third parties believed to have knowledge, documentation and/or corroborating evidence concerning some of the prior art listed in Exhibit C and/or additional prior art. These third parties include the authors, inventors, or assignees of the references listed in Exhibit C. In addition, Google reserves the right to assert invalidity under 35 U.S.C. § 102(c), (d), or (f) to the extent that discovery or further investigation yield information forming the basis for such claims.

B. Disclosure of Invalidity Due to Anticipation Pursuant to P.R. 3-3(b) and (c)

In accordance with P.R. 3-3(b) and (c), prior art references anticipating some or all of the asserted claims of the asserted patents are listed in Table 1 below. A full citation to each reference is found in Exhibit C, along with the “Short Name” used to identify each reference throughout these disclosures, including the claim charts of Exhibits A-1 to A-39. Table 1 identifies the claims anticipated by each reference and the chart in Exhibits A-1 to A-39 that identifies specific examples of where each limitation of the anticipated claims is found in that reference.

Table 1: Prior Art References Anticipating Asserted Claims of the Patents in Suit.

Exhibit A Chart	Prior Art
A-1	Adapt/X Advertiser (“ADAPT/X”) and references cited therein.

A-2	Alta Vista Search Engine (“ALTA VISTA”) and references cited therein.
A-3	Chris Buckley, “Implementation of the SMART Information Retrieval System,” Department of Computer Science, Cornell University (May 1985) (“BUCKLEY”)
A-4	U.S. Patent No. 5,901,287 (“BULL”)
A-5	U.S. Patent No. 5,761,662 (“DASAN”)
A-6	Rick Dedrick, <i>Interactive Electronic Advertising</i> , IEEE 1994 (“DEDRICK 1994”)
A-7	Rick Dedrick, <i>A Consumption Model for Targeted Electronic Advertising</i> , IEEE 1995 (“DEDRICK 1995”)
A-8	U.S. Patent No. 5,710,884 (“DEDRICK PATENT”)
A-9	DoubleClick system (“DoubleClick”) and references cited therein.
A-9	U.S. Patent No. 5,948,061 (“MERRIMAN I”)
A-9	U.S. Patent No. 7,844,488 (“MERRIMAN II”)
A-10	Excite Search Engine (“EXCITE”) and references cited therein.
A-11	U.S. Patent No. 7,072,849 (“FILEPP”)
A-12	Fuzzy Query Modelling Assistant System (“FMQA”)
A-13	Edward Fox, <i>Development of the Coder System: A Testbed for Artificial Intelligence Methods in Information Retrieval</i> (Fox)
A-14	Katherine Gallagher and Jeffrey Parsons, <i>A Framework for Targeting Banner Advertising on the Internet</i> , Proceedings of the Thirtieth Annual Hawaii International Conference on System Sciences, 1997 IEEE (“GALLAGHER”)

A-15	HEALTHGATE and references cited therein.
A-16	Hotbot Search Engine (“HOTBOT”) and references cited therein.
A-17	Infoseek Search Engine (“INFOSEEK”) and references cited therein.
A-18	Kohda, <i>Ubiquitous Advertising on the WWW: Merging Advertisement on the Browser,</i> Computer Networks and ISDN Systems, Vol. 28, Nos. 7-11, pp. 1493-1499 (May 1996) (“KOHDA ‘96”)
A-19	U.S. Patent No., 7,136,853 (“KOHDA”)
A-20	Henrik Larsen and Ronald Yager, “Query Fuzzification for Internet Information Retrieval,” (1996) (“LARSEN”)
A-21	Gary Mooney, “Intelligent information retrieval from the World Wide Web using fuzzy user modelling,” Information Research News, Vol. 21, No. 67 (Winter 1996) (“MOONEY”)
A-22	Sung Myaeng and Robert Korfhage, “Integration of User Profiles: Models and Experiments in Information Retrieval,” Information Processing & Management, Vol. 26, No. 6 (1990) (“MYAENG”)
A-23	WO9721183A1 (NAQVI WO)
A-24	NetGravity Ad Server (“NetGravity”) and references cited therein.
A-25	Open Text Search Engine (“OPEN TEXT”) and references cited therein.
A-26	Profile-Based System (“PBS”) and references cited therein.
A-27	U.S. Patent No. 6,119,101 (“PECKOVER”)
A-28	“Study: Search Engine Vendors Adopt New Strategies,” <i>Phillips Business Information’s Internet Week</i> , Aug. 5, 1996 (“PHILLIPS BUSINESS”)

A-29	<i>Make Sure Search Engines Find Your Site</i> , PR News, May 6, 1996 (“PR NEWS”)
A-30	Tadeusz Radecki, “Fuzzy Set Theoretical Approach to Document Retrieval” <i>Information Processing & Management</i> , Vol. 15, pp. 247-259 (1979) (“RADECKI”)
A-31	U.S. Patent No. 6,374,237 (“REESE”)
A-32	System for the Mechanical Analysis and Retrieval of Text (“SMART”)
A-33	SUBMIT-IT and references cited therein.
A-34	U.S. Patent No. 5,886,683 (“TOGNAZZINI”)
A-35	Turpeinen, <i>Architecture for Agent-Mediated Personal News Service</i> (“TURPEINEN”).
A-36	Lycos Search Engine (“LYCOS”) and references cited therein.
A-37	WebCrawler Search Engine (“WEBCRAWLER”) and references cited therein.
A-38	Wilms, <i>A Natural Language Interface For An Intelligent Document Information And Retrieval System</i> (1988) (“WILMS”)
A-39	Yahoo! Search Engine (“YAHOO!”) and references cited therein.

The art cited in Exhibits A-1 to A-39 are illustrative and not exhaustive. Further, these claim charts provide illustrative citations to where each element may be found in the prior art references. The cited references may contain other disclosures of each claim element as well. Furthermore, as noted above, the cited references under 35 U.S.C. §§102(a), (b), (e), and/or (g) include the publications themselves as well as the use of the products and systems described therein. Although Google’s 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 each of the asserted claims.

C. Disclosure of Invalidity Due to Obviousness Pursuant to P.R. 3-3(b) and (c)

In accordance with P.R. 3-3(b), prior art references rendering the asserted patents obvious, alone or in combination with other references, and teachings, suggestions, and/or motivations to combine them are outlined below and included in Exhibits A-1 to A-39. In addition, discussed below are specific groups of prior art where members from different groups would be obvious to combine in ways similar to the other obviousness combinations provided. In addition to the specific combinations of prior art and the specific combinations of groups of prior art disclosed herein, Google reserves the right to rely on any combination of any prior art references disclosed herein. These obviousness combinations reflect Google's present understanding of the potential scope of the claims that Rockstar appears to be advocating and should not be seen as Google's acquiescence to Rockstar's interpretation of the patent claims.

Based on Google's present understanding of the asserted claims of the asserted patents-in-suit and the apparent constructions that Google believes Rockstar to be asserting based on Rockstar's Infringement Contentions, Google believes that the anticipation references discussed in section III.B. and charted in Exhibits A-1 to A-39 each anticipate the claims of the asserted patents found in the references' respective charts in Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim was not part of an anticipation reference, then Google contends that the anticipation reference in combination with the knowledge and skill

of a person of ordinary skill in the art at the time of the alleged invention and/or other prior art disclosing the allegedly missing limitations would have rendered each of the charted claims obvious. Exhibit B contains tables which identify specific examples of where each limitation of the asserted claims is found in a prior art reference. References herein to tables beginning with the letter “B” refer to the tables that appear in Exhibit B.

In several locations in this section and in Exhibit B, different categories of prior art references are presented and a title is provided for each such category. These category titles are provided for convenience only and do not constitute an admission of what the included references are alleged to disclose, nor are the titles a binding characterization of what any reference not in a given category does not disclose.

The Supreme Court has held that the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727, 1739 (2007). When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. *Id.* at 1740. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Id.* In order to determine whether there is an apparent reason to combine the known elements in the fashion claimed by the patent at issue, a court can look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art. *Id.* at 1740-1741. For example, obviousness can be demonstrated by showing there existed at the time of invention a known problem for which there was an

obvious solution encompassed by the patent's claims. *Id.* at 1743. Any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed. *Id.* Common sense also teaches that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle. *Id.*

The motivation, reasons, and market trends that that would provide a basis to combine the teachings of the prior art references disclosed herein is found in the references themselves and: (1) the nature of the problem being solved, (2) the express, implied and inherent teachings of the prior art, (3) the knowledge of persons of ordinary skill in the art, and (4) the predictable results obtained in combining the different elements of the prior art. By way of example, HOFFEROR (at p. 1) states:

Users of *e-mail* and other on-line communication systems are faced with the problem of selecting relevant information in a space of different information-sources. . . . To overcome this *information overload problem* information filtering techniques have been developed to deliver information t those users who really need it.

MORITA (at p. 1) states: "Recent developments in computers and computer networks interconnecting large numbers of systems have brought us convenience in many aspects, but have introduced a situation of 'information overloading' also." EDWARDS (at p. 31) states:

The recent, rapid growth of the Internet has led to enormous amounts of on-line information. However, as the volume of this information has increased, so have the problems encountered by users in dealing with it. Software agents have been proposed as a solution to this problem.

And, LIEBERMAN (at p. 2) states:

The recent explosive growth of the World Wide Web and other on-line information sources has made critical the need for some sort of intelligent assistance to a user who is browsing for interesting information.

(See also, e.g., O’RIORDAN, p. 205 (“It is generally acknowledged that the volume of information which is accessible over various networks has exceeded the capability of users to sift through it in order to access that which is relevant to them.”).)

These publications, as well as the others cited herein, recognize the problem to be solved: assisting Internet users in locating relevant information. They also evidence a trend in finding ways to solve this problem and personalize a computer users’ experience through, for example user profiles and other known methods. This problem and trend would motivate one skilled in the art to integrate the elements in the Asserted Patents into a new application.

Furthermore, Google notes that the shared specification of the Asserted Patents admits that:

The Internet provides an excellent vehicle for access to information about goods and services on a global basis. In theory, anyone can access information about any product. In practice, the problem is one of finding the correct information. . . . These techniques and tools for searching and retrieving information, in their present form, can inundate the user with large amounts of unwanted material. . . . As search engines and techniques become ever more powerful in the number and diversity of databases they can access, the amount of information which it is possible to present to a user can quickly become excessively large.

(‘065 patent, 1:4-31) (emphasis added). Thus, the patents sought to solve the same problem discussed in the prior art, and indeed acknowledge that “many techniques for solving this problem [were] known, including: indexing systems such as Yahoo, graphical electronic malls, hall of malls, directories, and text search engines, such as OpenText.” (‘065 patent, 1:12-13.)

Also in this time frame, there was a focus on how to advertise and/or make money on the Internet. By way of example, in *What Makes People Click: Advertising on the Web*, the author analyzed the different ways in which a company could advertise on the Web, including getting placed in search engines, banner advertising, and keyword referral advertising. (See also e.g., PR NEWS, FROOK.) Similarly, GALLAGHER sought to “address the challenge of attracting a defined target audience to a Web site via *banner advertising*.” (GALLAGHER, p. 1.)

Based on Google’s present understanding of the asserted claims of the patents-in-suit and the apparent constructions that Google believes Rockstar to be asserting based on Rockstar’s Infringement Contentions, the asserted claims of the patents-in-suit are obvious in light of the combinations outlined below. Each of these combinations yields predictable results.

1. References that Receive a Search Request and Search a Database for Search Results

Search engines were well known in the prior art. Several search engines, including those listed below in Table 2, were on the market and in use by consumers. The patents acknowledge this, citing to both Yahoo and Open Text. (’065 patent, 1:12-14.) And, the patents provide that these “conventional search engines” provide “a basis on which the methodology according to this invention may be implemented.” (*Id.*, 2:10-13; *see also id.*, 4:2-5 (“The database search engine is conventional technology, an example of which is the OpenText engine that provides searches based on subject, strings, boolean, text, etc.”))

Indeed, in the mid-1990s, and prior to 1996, there was an “explosion” of search engines on the market. The number of websites on the Internet was proliferating quickly, and several companies developed search engines to assist users in locating information on the World Wide Web. That there was a market need for *Worldwide Searching for Dummies* (1996) to explain to users how to search the Web and operate a search engine is itself evidence of the prevalence of search engines available prior to the inventions of the patents-in-suit. These search engines allowed a user to input a search query into a search box or form, and the search engine would return results to the user based upon that query. One of ordinary skill in the art would have been familiar with search engines in use prior to June 1996.

Table 2: Non-Exclusive List of Search References

Search References
YAHOO!
WEBCRAWLER
LYCOS
INFOSEEK
ALTA VISTA
EXCITE
OPEN TEXT
HEALTHGATE
APTEX
INKTOMI
HOTBOT
SUBMIT-IT
PR NEWS
KOHDA '96
KOHDA '853

BULL
PECKOVER
NAQVI WO
Knoblock, Craig; "Searching the World Wide Web," in IEEE Expert. ("KNOBLOCK")
<i>World Wide Searching for Dummies</i> , by Brad Hill, IDG Books Worldwide, 1996. ("DUMMIES")
Fox, et al., "Users, User Interfaces, and Objects: Envision, a Digital Library," <i>Journal of the American Society for Information Science</i> , 44(8):480-491, 1993 ("FOX 1993")
Fox, Chen, and France, "Integrating Search and Retrieval with Hypertext", 1991. ("FOX 1991")
"Short History of Early Search Engines," available at www.thehistoryofseo.com/The-Industry/Short_History_of_Early_Search_Engines.aspx . (SHORT HISTORY)
Pinkerton, "Finding What People Want: Experiences with the WebCrawler", Second International WWW Conference, 1994. (PINKERTON)
"Search-Engine Advertising; Web Marketing Push" by John Evan Froom in <i>Communications Week</i> , October 9, 1995. (FROOK)
"What Hath Yahoo Wrought," by John W. Verity, <i>Bloomberg Businessweek</i> , February 11, 1996 (VERITY)
Sullivan, "Where Are They Now? Search Engines We've Known and Loved," available at http://searchenginewatch.com/article/2064954/Where-Are-They-Now-Search_Engines-Wev.. (SULLIVAN)
<i>The Internet Advertising Report</i> , Mary Meeker, Morgan Stanley, December 1996 ("MEEKER")

Based upon Rockstar's apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the Search References listed above in Table 2 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and in Table B1, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose a search engine, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the Search References in Table 2 above or Table B1 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Search Reference with any other reference related to information retrieval or related fields based on at least common sense, routine innovation, and the fact that search engines were well-known.

2. References that Search Another Database for Advertisements.

It was also well known in the prior art for search engines to search another database for an advertisement. Several prior art systems and references, including those listed in Table 3 below, disclosed this element. In particular, banner advertising existed in the prior art, as discussed in GALLAGHER and PR NEWS. GALLAGHER described banner advertising as "advertising that appears in the course of users' browsing and searching activities on information services, such as Yahoo! (<http://www.yahoo.com>) and Excite (<http://www.yahoo.com>), that

provide an entry point to Internet resources appeared in the course.” (Gallagher, p. 2.) PR NEWS further reported that it was “possible for a company to buy its own name or an ad to ensure it is listed at the top of a search results page.” (PR News, at 1.) PR NEWS reported that WEBCRAWLER, LYCOS, and INFOSEEK offered advertisement banner links, and ALTA VISTA’s was in beta testing. (*Id.*) FROOK reported that

[s]earch engine advertising [was] emerging as one of the first widespread forms of targeted marketing on the World Wide Web. These advertisements work by delivering a sales pitch along with the results of a key-word search on a search engine. For example, a user searching under the subject ‘cars’ might receive a Web ad for General Motors Corp. or Chrysler Corp., while a search for modems might deliver an ad for online computer superstore NECX Direct.

(FROOK at IA11.) Similarly, *What Makes People Click* described “matching what the user is looking for with the ad banner at the top of the results page.” (STERNE, p. 215-222.) Further, BULL disclosed “[a]long with displays, including those for data entry, searches, search results, information retrieval, the user will be presented with advertisements and/or coupons based on criteria entered by advertisers.” (BULL, Col. 4.)

Additionally, there were products developed to provide advertising services to search engines. For example, YAHOO! used NETGRAVITY’S ADSERVER to provide targeted advertising: “when a visitor to the Yahoo! site conducts a search by inputting a keyword, advertising related to that keyword appear on the screen. A visitor might, for example, conduct a search for Web pages related to cars. The server would then display an ad related to cars when it displays the results of the query.” (FLYNN, p. 2.) WebCrawler did as well. (NETGRAVITY ADSERVER CHOSEN BY GNN.) The ADAPT/X ADVERTISER, developed at Bellcore and disclosed in NAQVI WO, was a competitor of NETGRAVITY. As described in NAQVI WO, “[t]he advertisements on the server are not tied to any particular page containing information on the network, but rather, are retrieved in response to a query entered by the user (17) and dynamically mixed with the

content of the pages returned in response to the query (16).” (NAQVI WO, Abstract.) These products were developed for the purpose, at least in part, of combining them with the search engines that existed in the art.

Table 3: Non-Exclusive List of References that Search for Advertisements

Ads References
YAHOO!
WEBCRAWLER
LYCOS
INFOSEEK
ALTA VISTA
EXCITE
OPEN TEXT INDEX
HEALTHGATE
APTEX
INKTOMI
HOTBOT
SUBMIT-IT
NETGRAVITY ADSERVER
ADAPT/X
PR NEWS
KOHDA '96
KOHDA '853
BULL

PECKOVER
NAQVI WO
<i>Sterne, What makes people click, Advertising on the Web, Que Corporation, 1997 (“STERNE”)</i>
KNOBLOCK
“Search-Engine Advertising; Web Marketing Push” by John Evan Froom in <i>Communications Week</i> , October 9, 1995. (FROOK)
<i>Search Engines Take a Risky Step: Porn Banners Yahoo!, Excite and Lycos Test Keyword Sales to Adult Sites</i> , by Kim Cleland, adage.com, December 16, 1996. (“CLELAND”)
“Lycos signs key advertisers for popular Internet catalog; Microsoft, AT&T and NECX charter sponsors on leading Web Index,” <i>Business Wire</i> , September 18, 1995. (“BUSINESSWIRE”)
<i>A Framework for Targeting Banner Advertising on the Internet</i> , by Katherine Gallagher and Jeffrey Parsons, Proceedings of the Thirtieth Annual Hawaii International Conference on System Sciences, 1997 IEEE. (“GALLAGHER”)
<i>For advertisers, Web offers wide audience, pinpoint accuracy</i> , <i>The Boston Globe</i> (May 5, 1996) (“BRAY”)
<i>Poppe Tyson Partners With Atlanta Software Leader To Form Doubleclick -- The First</i>

<i>Advertising Network For The Internet</i> , PR Newswire (Feb. 6, 1996). (“POPPE TYSON”)
“Start-Ups Plot to Make the Web Comfortable for Advertisers,” <i>The New York Times CyberTimes</i> , February 13, 1996. (FLYNN)
“NetGravity Launches AdServer, the Premier Advertising Management System Software for World Wide Web Publishers,” dated January 31, 1996. (NETGRAVITY LAUNCHES ADSERVER)
ABOUT NETGRAVITY ADSERVER
NETGRAVITY ADSERVER HELP
MEEKER
NETGRAVITY ADSERVER HELP
PHILLIPS BUSINESS

Based upon Rockstar’s apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the Ads References listed above in Table 3 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and in Table B2, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose providing ads, the combination of that Table 1 reference with the

disclosure of such a system found in one or more of the Ads References in Table 3 above or Table B2 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Ads Reference with any other reference related to information retrieval or related fields based on at least common sense, routine innovation, and the fact that search engines were well-known. Indeed, several search engines had already combined search with advertising, indicating that it was obvious to do so.

3. References that Provide Search Results and Ads Together

The prior art, including the systems and references listed in Table 4 below, further disclosed providing search results and ads together, as disclosed in the asserted claims. For example, PR NEWS explained that “[a]dvertisements that appear *only with the results* of a specific key word search are a minimum of \$1,000 for a four-week period . . .” (PR NEWS at 1) (emphasis added). FROOK further described providing keyword targeted ads along with search results: “These advertisements work by delivering a sales pitch *along with the results of a key-word search on a search engine*. For example, a user searching under the subject ‘cars’ might receive a Web ad for General Motors Corp. or Chrysler Corp., while a search for models might deliver an ad for online computer superstore NECX Direct. . . . Yahoo executives have confirmed to *Interactive Age* that advertising sales will be made against the new search function as early as next month.” (FROOK, p. IA11) (emphasis added). Similarly, NAQVI WO disclosed: “The advertisements on the server are not tied to any particular page containing information on the network, but rather, are retrieved in response to a query entered by the user (17) *and dynamically mixed with the content of the pages returned in response to the query* (16). The present invention displays the content pages with focused, targeted advertisements as a part of

the page, in accordance with a particular layout.” (NAQVI WO, Abstract) (emphasis added). And Healthgate allowed advertisers to have their ads shown whenever a user entered a pre-defined keyword. (See

<https://web.archive.org/web/19961105192255/http://www.healthgate.com/HealthGate/product/sponsorship.html>.)

Table 4: Non-Exclusive List of References that Provide Search Results and Ads Together

Search Results and Ads References
YAHOO!
WEBCRAWLER
LYCOS
INFOSEEK
ALTA VISTA
EXCITE
OPEN TEXT INDEX
HEALTHGATE
APTEX
INKTOMI
HOTBOT

SUBMIT-IT
NETGRAVITY ADSERVER
ADAPT/X
PR NEWS
KOHDA '96
KOHDA '853
BULL
PECKOVER
NAQVI WO
STERNE
BUSINESSWIRE
Business Briefcase refers to <i>Business Briefcase</i> , The Boston Herald (Dec. 19, 1996). (BUSINESS BRIEFCASE)
<i>DoubleClick Named Advertising Sales and Distribution Partner for AltaVista Search Site; Leading Internet Ad Network Teams with Net's Largest Search Engine</i> , PR Newswire (Dec. 18, 1996). (ALTAVISTA)
FLYNN

MEEKER
PHILLIPS BUSINESS

Based upon Rockstar’s apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the Search Results and Ads References listed above in Table 4 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and in Table B3, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose a providing search results and ads together, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the Search Results and Ads References in Table 4 above or Table B3 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Search Results and Ads Reference with any other reference related to information retrieval and related fields based on at least common sense, routine innovation, and the fact that search engines were well-known. Again, several search engines were already doing so.

4. References that Receive User Preference Input. or User Profile Data

The prior art also disclosed using user preferences and/or creating user profiles to identify information, whether it be search results, ads, etc., that might be interesting to the user, including the references and systems listed in Table 5. For example, GALLAGHER disclosed a model that

had three elements: individual user profiles, individual advertisement target audience profiles, and a mechanism for selecting and presenting advertisements to specific users who match the target audience profile. (GALLAGHER, p. 4.) GALLAGHER further disclosed an “enhanced” model, whereby the system used the search and browsing behavior of users to determine which advertisements to be shown to that user. (*Id.*, p. 5.) DEDRICK 1994 and DEDRICK 1995 similarly disclose consumers having personal profiles which contain demographic and psychographic information, and utilizing those profiles to identify content and advertisements that match the user’s profile. (*See e.g.*, DEDRICK 1994, p. 60; *see also* DEDRICK 1995.) DEDRICK 1994 further explicitly discloses monitoring a user’s behavior on an ongoing basis to build and maintain the user’s profile. (*See* DEDRICK 1994, p. 60.) And, Firefly developed a software, which on information and belief was used by Yahoo!, which allowed users to provide demographic information, and then as they used a site, rated their interests and that information was added to a user profile. (WILLIAMSON, p. 1.) Firefly’s software tools allowed its customers “to deliver targeted content and advertising, as well as, accurate measurements and reports regarding site activity.” (FIREFLY NETWORK AND YAHOO! OFFER CONSUMERS ABILITY TO INTELLIGENTLY NAVIGATE THE WEB, p. 2.)

Even outside of search and advertising, user preferences and user profiles were used to identify content that might be of interest to a particular user, specifically to try to solve the problem of “information overload.” For example, FOLTZ described research conducted for predicting Technical Memos (“TMs”) that best matched employees’ technical interests. The Abstract describes: “Within Bellcore, approximately 150 new TMs are published each month, yet very few are relevant to any single person’s interests.” (FOLTZ, Abstract.) The paper analyzes different methods of identifying an employee’s technical interests. Employees provided

a list of words and phrases that described their technical interests, and that information was used to select TMs to provide to them. (FOLTZ, p. 4-6.) HOFFEROR similarly discloses a system which used a user profile to rank e-mail information. (HOFFEROR, Abstract and Introduction.) This system disclosed monitoring a user’s reactions to material, including negative reactions. (*Id.*, Section 4.2.) And KAMBA discloses providing a personalized newspaper on the Web—The Krakatoa Chronicle—based on user profiles. (KAMBA, p. 1.) There, the system obtained user preference data based on explicit feedback from the user, and also implicit feedback based upon observations of the user’s interactions with news articles. (*Id.* p. 2.) The user’s profile would change based upon the interactions with news articles. (*Id.*, p. 8.) And, the layout of the personalized newspaper, i.e. the ordering of articles, was in part a function of the relevance of an article to the user’s profile. (*Id.*, p. 7.) (*See also* MORITA; EDWARDS; LIEBERMAN.) The prior art further considered a user’s past actions to determine whether content would be interesting to a user. (LIEBERMAN, p. 6.)

Table 5: Non-Exclusive List of References that Receive User Preference Input or

User Profile Data

User Preference References
FIREFLY
GALLAGHER
DEDRICK 1994
DEDRICK 1995

BULL
PECKOVER
Foltz and Dumais, Personalized Information Delivery: An Analysis of Information Filtering Methods, Communications of the ACM, 35(12), 51-60, 1992 ("FOLTZ")
Hofferer, Knaus, and Winiwarter, <i>An Evolutionary Approach to Intelligent Information Filtering</i> (1994) ("HOFFERER")
Morita and Shinoda, <i>Information Filtering Based on User Behavior Analysis and Best Match Text Retrieval</i> ("MORITA")
Kamba, Bharat, and Albers, <i>The Krakatoa Chronicle – An Interactive, Personalized Newspaper on the Web</i> ("KAMBA")
Edwards, Bayer, Green & Payne, <i>Experience with Learning Agents which Manage Internet-Based Information</i> , AAAI Technical Report SS-96-05, 1996 ("EDWARDS")
Lieberman, <i>Letizia: An Agent That Assists Web Browsing</i> ("LIEBERMAN")
Lam, Mukhopadhyay, Mostafa, and Palakal, <i>Detection of Shifts in User Interests for Personalized Information Filtering</i> , SIGIR '96, ACM 1996 ("LAM")
O'Riordan and Sorensen, <i>An Intelligent Agent for High-Precision Text Filtering</i> , CIFM '95, ACM 1995 ("O'RIORDAN")
Bloedorn, Mani, MacMillan,

<p><i>Machine Learning of User Profiles: Representational Issues</i>, Proceedings of AAAI-96, Portland, OR, Aug. 4-8, 1996 (“BLOEDORN”)</p>
<p>Pazzani, Muramatsu, & Billsus, <i>Syskill & Webert: Identifying interesting web sites</i>, AAAI 1996 (“PAZZANI”)</p>
<p>Balabanovic, <i>An Adaptive Web Page Recommendation Service</i>, 1997 ACM (BALABANOVIC)</p>
<p>Maes, <i>Agents that Reduce Work and Information Overload</i>, Communications of the ACM, July 1994 (“MAES”)</p>
<p>Sheth and Maes, <i>Evolving Agents for Personalized Information Filtering</i>, 1993 IEEE (“SHETH”)</p>
<p>Fox, Hix, Nowell, Brueni, Wake, and Heath, <i>Users, User Interfaces, and Objects: Envision, a Digital Library</i>, Journal of the American Society for Information Science, 44(8):480-491, 1993 (“FOX 1993”)</p>
<p>Little, <i>Commerce on the Internet</i>, 1994 IEEE (“LITTLE”)</p>
<p>Adam and Yesha, <i>Strategic Directions in Electronic Commerce and Digital Libraries: Towards a Digital Agora</i>, ACM Computing Surveys, Vol. 28, No. 4, Dec. 1996 (“ADAM”)</p>
<p>U.S. Patent No. 5,933,811 to Angles et al. (“811 PATENT”)</p>
<p>BROADVISION</p>
<p>C/NET</p>
<p>APTEX</p>
<p>HYPER-TARGETED MARKETING</p>

CYBERGOLD
FREELOADER
HYPER SYSTEM
I/PRO
F.J. Burkowski, "Delivery of Electronic News: A Broadband Application" ("BURKOWSKI")
Tim O'Reilly, "Publishing Models for Internet Commerce," Vol. 39, No. 6 (1996) ("O'REILLY")
NAQVI WO
KOHDA '96
KOHDA '853
"Firefly Licenses Targeting Technology," by Debra Ahe Williamson, December 9, 1996, available at adage.com/article/news/firefly-licenses-targeting-technology/75969 . ("WILLIAMSON")
"Firefly Network and Yahoo! Offer Consumers Ability to Intelligently Navigate the Web; My Yahoo! Features Firefly Tools to Offer Personalized Recommendations for Web Sites and Build Dynamic Communities," Dec. 11, 1996 ("FIREFLY NETWORK AND YAHOO! OFFER CONSUMERS ABILITY TO INTELLIGENTLY NAVIGATE THE WEB")
"Boston.Comment Today's topic Shadow advertising," <i>The Boston</i>

<i>Globe</i> , November 14, 1996. ("BOSTON GLOBE")
ABOUT NETGRAVITY ADSERVER
Lang, "NewsWeeder: Learning to Filter Netnews," 1995 ("LANG")
Green, Bayer & Edwards, "Towards Practical Interface Agents which Manage Internet-Based Information, 1995 ("GREEN")
MEEKER
U.S. Patents No. 6,183,366 to Goldberg et al. ("366 PATENT")
U.S. Patents No. 7,496,943 to Goldberg et al. ("943 PATENT")
U.S. Patents No. 6,712,702 to Goldberg et al. ("702 PATENT")
PHILLIPS BUSINESS

Based upon Rockstar's apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the User Preference References listed above in Table 5 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and in Table B4, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose using user preferences or user profiles to identify search results or ads to

provide to a user, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the User Preference References in Table 5 or Table B4 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a User Preference Reference with any other reference related to information retrieval or related fields based on at least common sense, routine innovation, and the fact that user profiling and user modeling were well-known.

5. References in Combination with “Fuzzy Logic”

“Fuzzy logic” existed in the prior art as something that could be used in a variety of applications to resolve many different types of problems across numerous disciplines and subject matters. For example, as explained in KOSKO:

Computers do not reason as brains do. Computers ‘reason’ when they manipulate precise facts that have been reduced to strings of zeros and ones and statements that are either true or false. The human brain can reason with vague assertions or claims that involve uncertainties or value judgments: ‘The air is cool,’ or ‘That speed is fast’ or ‘She is young.’ Unlike computers, humans have common sense that enables them to reason in a world where things are only partially true. Fuzzy logic is a branch of machine intelligence that helps computers paint gray, commonsense pictures of an uncertain world.

(KOSKO, p. 76.) KOSKO reported that in 1980, a firm in Copenhagen used a fuzzy logic system to oversee the operation of a cement kiln. (*Id.*) In 1988, fuzzy logic was used to control a subway in Sendai, Japan. (*Id.*) Thus, it has many applications.

Thus, predictably so, fuzzy logic had already been used in the same manner to solve the same problems at it issue in the asserted patents. The prior art disclosed correlating, as a function of a fuzzy logic algorithm, a received search argument and user profile data to particular information in an information database, and then providing this particular information as the search results. This prior art includes the references and systems listed in Table 6. For example,

LARSEN discloses an “intelligent inquiry system” that “fuzzifies” a search argument using user profile data. (LARSEN, p. 1-3.) LARSEN discloses that a user might enter a search argument, for example, that “express[es] desired properties about the kind of house desired (price, size, location, etc.).” (Id., p. 1.) The “intelligent inquiry system” then uses the user’s specific preferences as to these criteria, including criteria ranking and willingness to deviate from criteria, in order to construct a “fuzzy query.” (Id., p. 4, 9.) The system uses this “fuzzy query” to generate improved search results. (Id., p. 4-9.) LARSEN specifically discloses that “[o]ur an approach [sic] is in particular interest for retrieval through the Internet WWW. In this situation, the semantic elasticity support by our approach allows the user to retrieve the most interesting objects, even when the description applied in the information base does not directly match the query formulation chosen by the user.” (Id., p. 20; *see also* LARSEN II, LARSEN III.)

Table 6: Non-Exclusive List of “Fuzzy Logic” References

“Fuzzy Logic” References
U.S. Patent No. 6,119,101 (“PECKOVER”)
Sadaaki Miyamoto, “On Fuzzy Information Retrieval,” <i>Japanese Journal of Fuzzy Theory and Systems</i> , Vol. 3, No. 1 (1991) (“MIYAMOTO”)
Sadaaki Miyamoto, “Concerning fuzzy information retrieval,” <i>Journal of the Society of Fuzzy Theory and Systems</i> 3(1) (Feb. 1991) (“MIYAMOTO II”)
Sadaaki Miyamoto, “Fuzzy Sets in Information Retrieval and Cluster Analysis” (1990) (“MIYAMOTO III”)

<p>P. Bosc, "Fuzzy querying in conventional databases," <i>Fuzzy Logic Management of Uncertainty</i> (1992) ("BOSC")</p>
<p>Mark Lager, "Spinning a Web Search," (1996) ("LAGER")</p>
<p>Henrik Larsen and Ronald Yager, "The Use of Fuzzy Relational Thesauri for Classificatory Problem Solving in Information Retrieval and Expert Systems," <i>IEEE Transactions on Systems, Man, and Cybernetics</i>, Vol. 23, No. 1 (Jan./Feb. 1993) ("LARSEN II")</p>
<p>Peretz Shoval, "ERSE : An Expert Retrieval System for Electronics Databases," in <i>Expert Systems for Information Management</i>, Vol. 3, No. 2 (1990) ("SHOVAL")</p>
<p>Sameer Singh, "Fuzzy Pattern Recognition for Knowledge-Based Systems," <i>Proc. 6th International Conference on Data and Knowledge Systems for Manufacturing and Engineering (DKSME'96)</i>, Tempe, Arizona, USA, pp. 1-10, (24-25 October, 1996) ("SINGH")</p>
<p>Lotfi Zadeh, "The Role of Fuzzy Logic and Soft Computing in the Conception and Design of Intelligent Systems" ("ZADEH")</p>
<p>Donald Kraft, "Research into Fuzzy Extensions Retrieval" ("KRAFT")</p>
<p>G. Bordogna et al., "Fuzzy Inclusion in Database and Information Retrieval Query</p>

Interpretation” (1996) (“BORDOGNA”)
G. Bordogna et al, “Fuzzy Approaches to extend Boolean information retrieval,” <i>Fuzziness in database management systems</i> , pp. 231-274 (1995)
L. Zadeh, “Information and Control,” (1965)
“Automatic Thesaurus Construction Supporting Fuzzy Retrieval of Reusable Components,” (1995) (“DAMIAN”)
Wilms, <i>A Natural Language Interface For An Intelligent Document Information And Retrieval System</i> (1988) (“WILMS”)
Duncan Buell, “Performance Measurement in a Fuzzy Retrieval Environment,” 1981 (“BUELL”)
Gerard Salton, “Extended Boolean Information System,” <i>Advances in Information Retrieval</i> , ACM 82 Panel Session (“SALTON”)
Bill Buckles, “An Information Retrieval Perspective on Fuzzy Database Systems,” <i>Advances in Information Retrieval</i> , ACM 82 Panel Session (“BUCKLES”)
Donald Kraft, “Generalizations of Boolean Query Processing,” <i>Advances in Information Retrieval</i> , ACM 82 Panel Session (“KRAFT II”)

George Baklarz, "Using Neural Nets to Optimize Retrieval in a Fuzzy Relational Database" ("BAKLARZ")
P. Subtil et al., "A Fuzzy Information Retrieval and Management System and Its Applications," (1996) ("SUBTIL")
C.T. Yu, "An Approach to Probabalistic Retrieval," (1981) ("YU")
MOONEY
LARSEN
RADECKI
BUCKLEY
SMART
NAQVI WO
BULL
KOHDA '96
KOHDA '853
MYAENG
PBS
Sung Myaeng and Robert Korfhage, "Towards an Intelligent and Personalized Retrieval System" ("MYAENG II")
K. Asai, ed. 1995. Fuzzy Systems for Information Processing (1st ed.) ("ASAI")
Umano, M.: Databases, Iwai, S.: Information retrieval, in: T.

Terano, K. Asai and M. Sugeno (eds), <i>Fuzzy Systems Theory and Its Applications</i> , Academic Press, New York, 1992
Hua Li & Madan Gupta (Eds.), <i>Fuzzy Logic and Intelligent Systems</i> (1995) (“LI”)
Ronald Yager & Lotfi Zadeh (Eds.), <i>An Introduction to Fuzzy Logic Applications in Intelligent Systems</i> (1992) (“YAGER & ZADEH”)

Based upon Rockstar’s apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the Fuzzy Logic References listed above in Table 6 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and Table B5, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose correlating, as a function of a fuzzy logic algorithm, a received search argument and user profile data to particular information in an information database, and then providing this particular information as the search results, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the Fuzzy Logic References in Table 6 or Table B5 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Fuzzy Logic Reference with any other reference related to information retrieval or

related fields based on at least common sense, routine innovation, and the fact that fuzzy logic was well known and had many applications.

6. References in Combination with “Fee Records.”

The elements of generating a fee record based on selection of an advertisement, and extracting a toll based upon that fee record also existed in the art, including the art cited in Table 7 below. On June 2, 1996, Businessweek reported that Yahoo! entered into a deal with Proctor & Gamble under which Proctor & Gamble would only pay when an online customer “clicks” from a Proctor & Gamble ad to one of Proctor & Gamble’s websites. (Schiller, *For More About Tide, Click Here*, Businessweek, June 2, 1996.) The article further suggests that other advertisers may follow Proctor & Gamble’s lead. On information and belief, other advertisers and other search engines entered into similar arrangements under which a fee record was generated based upon selection of the advertisement, and extracting a toll based upon the fee record. It is common sense that a search engine would want to be paid for displaying advertisements, and that advertisers would expect to have to pay for that service.

Other references similarly disclose these elements. For example, NETGRAVITY ADSERVER provided tools for advertisers to track the success of advertisements, and such tracking would be necessary to generate fee records based upon the selection of an ad. GALLAGHER discloses advertisers bidding for the opportunity to display an ad to a user, and the advertisement corresponding to the winning bid is displayed. (GALLAGHER, p. 7.) PECKOVER disclosed a mechanism for receiving consideration for display an advertisement. (PECKOVER, 11:16-19, 11:61-62, 18:40-53, 21:5-11.)

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Fee Record Reference with any other reference related to advertising based on at least common sense, routine innovation, and the fact that charging for advertising was well known.

Table 7: Non-Exclusive List of “Fee Record” References

“Fee Record” References
YAHOO!
NETGRAVITY ADSERVER
ADAPT/X ADVERTISER
GALLAGHER
PECKOVER
NAQVI WO
FLYNN
ADSERVER 2.0
ADSERVER 2.0; AD REPORTING
NETGRAVITY ADSERVER HELP
ABOUT NETGRAVITY ADSERVER

Based upon Rockstar’s apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one or more of the Fee Record References listed above in Table 7 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each

claim chart listed in Table 1 above and Table B6, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose generating a fee record based upon selection of an advertisement, and/or extracting a toll based upon the fee record, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the Fee Record References in Table 7 or Table B6 renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Fee Record Reference with any other reference related to advertising based on at least common sense, routine innovation, and the fact that charging for advertising was well-known.

7. References in Combination with Databases, Clients, Servers.

The elements in many of the asserted claims of searching multiple databases, or storing data in multiple databases, and communicating between server and client computers were well known in the art.. For example, as explained in DUMMIES several prior art search engines had the capability of running searches in multiple databases. PECKOVER disclosed use of Product Database. (*See e.g.*, PECKOVER, 23:17-20.) Similarly, DEDRICK PATENT disclosed data collected for a personal profile database. (*See e.g.*, DEDRICK PATENT, 7:28-39) Several prior art references also explicitly disclose connections and communications between client and server computers. (*See* Table B7). As the '065 Patent states, "Functionality provided by the advertising machine 10 may be implemented using an appropriately programmed conventional data processing server platform." '065 Patent at 3:63-65. Similarly, the '065 patent states that "As search engines and techniques become ever more powerful in the number and diversity of databases they can access, the amount of information which it is possible to present to a user can quickly become

excessively large.” *Id.* at 1:26-32. “The database search engine 16 is conventional technology.” *Id.* at 4:2-3. Furthermore, the search engines disclosed in Table 1 implemented these elements as well. It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Databases, Clients, and Servers Reference with any other reference related to information retrieval or related fields based on at least common sense, routine innovation, and the fact that databases and client and server computers were well known in the art.

Table 8: Non-Exclusive List of Databases, Clients, Servers References

Databases, Clients, Servers References
PECKOVER
DUMMIES
PINKERTON
NETGRAVITY ADSERVER HELP
ABOUT NETGRAVITY ADSERVER
FLYNN
DUMMIES
PINKERTON
NETGRAVITY ADSERVER HELP

Based upon Rockstar’s apparent reading of the claims, Google contends that the references listed in Table 1 above each anticipate asserted claims of the patents-in-suit as indicated in Table 1 and Exhibits A-1 to A-39. However, if the finder of fact determines that some element of a given claim is not found in one of these references, Google contends that that reference in combination with the knowledge of one of ordinary skill in the art and/or with one

or more of the Databases, Clients, Servers References listed below in Table 8 would have rendered the claim obvious to one of ordinary skill in the art. Specific citations to these references are found in each claim chart listed in Table 1 above and Table B7, and the results of these combinations are predictable. For example, to the extent any reference listed in Table 1 is found to not expressly or inherently disclose storing data in databases, and communications between clients and servers, the combination of that Table 1 reference with the disclosure of such a system found in one or more of the Databases, Clients, Servers Reference in Table 8 above or Table B7 s renders the claim obvious.

It would have been obvious to one of skill in the art at the time of the alleged invention to combine a Databases, Clients, Servers Reference with any other reference related to information retrieval and related fields based on at least common sense, routine innovation, and the fact that charging for advertising was well-known.

8. Obviousness Summary

Numerous prior art references, including those identified above and in the Exhibits, reflect common knowledge and the state of the art prior to June 6, 1996, the alleged priority date of the asserted patents, or the filing date of the '065 patent. As it would be unduly burdensome to create detailed claim charts for the thousands of invalidating combinations, Google has provided illustrative examples of such invalidating combinations in the preceding section with specific exemplary citations to each reference in the charts in Exhibits A-1 to A-39 and in the Tables in Exhibit B. For at least the reasons discussed above, it would have been obvious to one having ordinary skill in the art to combine any of a number of prior art references, including any combination of those identified in Exhibit B, to meet the limitations of the asserted claims. As

such, Google's inclusion of exemplary combinations should not preclude this Court's examination of the myriad other invalidating combinations.

D. Contentions Under 35 U.S.C. § 112 Pursuant to P.R. 3-3(d)

The following contentions, made pursuant to P.R. 3-3(d), are subject to revision and amendment pursuant to Federal Rule of Civil Procedure 26(e) and the Orders of record in this matter to the extent appropriate in light of further investigation and discovery regarding the defenses, the Court's construction of the claims at issue, and the review and analysis of expert witnesses.

To the extent that the following contentions reflect constructions of claim limitations consistent with or implicit in Rockstar's Infringement Contentions, no inference is intended nor should any be drawn that Google agrees with Rockstar's claim constructions, and Google expressly reserves its right to contest such claim constructions. Google offers such contentions in response to Rockstar's Infringement Contentions and without prejudice to any position they may ultimately take as to any claim construction issues.

Based on Rockstar's apparent construction of the claims of the asserted patents (as expressed in its Infringement Contentions), based at least upon use of the following terms, all of the claims of the asserted patents are invalid for indefiniteness, non-enablement, and inadequate written description pursuant to 35 U.S.C. § 112.

'065 Patent

- "desired information" (claim 1)
- "user profile data" (claim 1)
- "searching, based upon the received search argument and user profile data, a database of information to generate a search result" (claim 1)
- "fuzzy logic algorithm" (claim 1)

- “wherein searching the database includes correlating, as a function of a fuzzy logic algorithm, the received search argument and user profile data to particular information in the database” (claim 1)
- “wherein searching the database includes correlating, as a function of a fuzzy logic algorithm, the received search argument and user profile data to particular information in the database, and providing the particular information as the search results” (claim 1)

'969 Patent

- “providing advertisements to a user” (claims 1, 8, 17, 22)
- “desired information” (claims 1, 8, 17, 22)
- “user profile data” (claims 2-5, 9-12, 18-21, 23)
- “receiving, from the user, a search request including a search argument corresponding to the desired information” (claim 1)
- “data network related information” (claims 1, 8, 17, 22)
- “correlating the received search argument to a particular advertisement in a second database having advertisement related information” (claims 1, 8)
- “providing the search results together with the particular advertisement to the user” (claims 1, 8, 17, 22)
- “the step of correlating the received search argument to the particular advertisement including selecting the particular advertisement based on the received search argument and user profile data” (claim 2)
- “the user profile data includes selections of the user from previous search arguments” (claim 3)
- “the user profile data includes selections of the user from previous search results” (claim 4)
- “the user profile data includes user specified preferences” (claims 5, 12, 21)
- “displaying the search results as a page on a data processing device and the particular advertisement as an insert on the page” (claims 6, 13)
- “server” (claim 8)
- “server computer “ (claims 8, 15-17, 22)

- “the search request including a search argument corresponding to the desired information” (claims 8, 17, 22)
- “searching, by the server computer based upon the received search argument, a first database to generate search results, the first database having data network related information and being contained on the server computer” (claim 8)
- “client computer” (claims 8, 14-17, 22)
- “the step of correlating the received search argument to the particular advertisement includes selecting the particular advertisement based on the received search argument and user profile data” (claim 9)
- “the user profile data is based partially upon previous search arguments of the user” (claims 10, 19)
- “the user profile data is based partially upon previous search results for the user” (claims 11, 20)
- “the step of providing the search results and the particular advertisement to the user includes displaying the search results as a page on a data processing device and the particular advertisement as an insert on the page” (claim 13)
- “the step of correlating the received search argument to a particular advertisement in the second database is performed by the client computer” (claim 14)
- “database search engine computer” (claims 15, 16)
- “access provider computer” (claim 15)
- “associate search engine computer” (claim 16)
- “advertising machine” (claims 17-23)
- “database search engine” (claims 17, 22)
- “a database search engine coupled to the server computer that receives the search argument from the server computer and searches a first database to generate search results, the first database having data network related information and being contained on the server computer” (claims 17, 22)
- “associative search engine” (claims 17, 18, 22, 23)
- “an associative search engine coupled to the server computer that correlates the received search argument to a particular advertisement in a second database having advertisement related information” (claims 17, 22)

- “the associative search engine selects the particular advertisement based on the received search argument and user profile data” (claim 18)
- “the server computer determining whether the advertisement was successful” (claim 22)
- “the server computer altering criteria for subsequent correlations of received search arguments to the second database” (claim 22)
- “the associative search engine correlates the received search argument to the particular advertisement based on the received search argument and user profile data” (claim 23)

'245 Patent

- “advertising machine” (claims 1, 9, 12-18, 22, 23, 25)
- “user preference input” (claims 1, 4, 9, 13, 18, 22, 23)
- “user preference data” (claims 1, 3-7, 9, 12-16, 18, 20, 21, 24)
- “search argument” (claims 1, 9, 18, 22, 23)
- “searching at least one database using the search argument to produce search results” (claim 1)
- “selecting at least one advertisement from an advertisement database relating to the search argument using the user preference data” (claim 1)
- “transmitting the search results together with the at least one advertisement” (claim 1)
- “product information” (claims 2)
- “the search results correspond to a plurality of identified products” (claims 2, 19)
- “ordering the search results based upon the user preference data” (claim 3)
- “setting the user preference data to default values” (claims 4, 13)
- “user preference edit input” (claims 5, 14, 22)
- “user preference re-prioritization input” (claims 6, 15, 23)
- “re-prioritizing the user preference data based upon the user preference re-prioritization input” (claim 6)
- “the user preference data is derived from prior searching history” (claims 7, 16, 24)

- “search refinement input” (claims 8, 17, 25)
- “refining the search results based upon the search refinement input” (claim 8)
- “refined search results” (claims 8, 17, 25)
- “An advertising machine implemented on at least one computer and operable to provide advertisements” (claim 9)
- “a communications interface operable to interface with the data processing device” (claim 9)
- “a database search engine operable to: receive from the data processing device via the communications link a search request that includes a search argument” (claim 9)
- “a database search engine operable to . . . search at least one database using the search argument to produce search results” (claim 9)
- “associative search engine” (claim 9)
- “an associative search engine operable to: receive user preference input from the data processing device via the communications link” (claim 9)
- “an associative search engine operable to . . . create user preference data based upon the user preference input” (claim 9)
- “an associative search engine operable to . . . select at least one advertisement from an advertisement database relating to the search argument using the user preference data” (claim 9)
- “the advertising machine operable to transmit the search results together with the at least one advertisement via the communications link to the data processing device” (claim 9)
- “the user preference data comprises a list of keywords” (claims 12, 21)
- “the associate search engine is further operable to: receive user preference edit input via the communications link from the data processing device”
- “the associate search engine is further operable to . . . modify the user preference data based upon the user preference edit input” (claim 14)
- “the associate search engine is further operable to: receive user preference re-prioritization input” (claim 15)
- “the associate search engine is further operable to . . . re-prioritize the user preference data based upon the user preference re-prioritization input” (claim 15)

- “the database search engine is further operable to: receive search refinement input via the communications link from the data processing device of the user” (claim 17)
- “the database search engine is further operable to . . . refine the search results based upon the search refinement input” (claim 17)
- “the database search engine is further operable to . . . transmit the refined search results via the communications link to the data processing device” (claim 17)
- “operating a data processing device of a user to receive advertisements” (claim 18)
- “interacting with the advertising machine via the communications link to provide user preference input used to create user preference data by the advertising machine” (claim 18)
- “transmitting to the advertising machine via the communications link a search request that includes a search argument” (claim 18)
- “the search results obtained from at least one database based upon the search argument” (claim 18)
- “the at least one advertisement obtained from at least one database having advertisement information based upon the search argument and the user preference data” (claim 18)
- “the search results are ordered based upon the user preference data” (claim 20)
- “receiving at least one of modified search results and at least one differing advertisement that are based upon the search argument, the user preference input, and the user preference edit input” (claim 22)
- “receiving at least one of modified search results and at least one differing advertisement that are based upon the search argument, the user preference input, and the user preference re-prioritization input” (claim 23)
- “receiving refined search results via the communications link from the advertising machine that is based upon the search refinement input” (claim 25)

'970 Patent

- “advertising machine” (claims 1-6, 8, 10-22, 24, 26, 27, 28, 29, 31)
- “An advertising machine implemented on at least one computer and operable to provide advertisements via a communications link to a data processing device of a user” (claims 1, 10)

- “a communications interface operable to interface with the data processing device of the user via the communications link” (claims 1, 10)
- “database search engine” (claims 1, 10, 33, 41)
- “search argument” (claims 1, 8, 10, 15, 17, 24, 26, 31, 33, 39, 41, 47)
- “a database search engine operable to: receive from the data processing device via the communications link a search request that includes a search argument” (claim 1)
- “a database search engine operable to . . . search at least one database using the search argument to produce search results” (claim 1)
- “associative search engine” (claims 1, 8, 10, 11, 15, 33, 41, 47)
- “an associative search engine operable to select at least one advertisement from an advertisement database based upon at least one of the search argument and the search results” (claims 1, 10)
- “fee record” (claims 1, 2, 17, 18, 34, 35, 42, 43)
- “the advertising machine operable to: transmit the search results together with the at least one advertisement via the communications link to the data processing device” (claims 1, 10)
- “the advertising machine operable to . . . receive a response from the data processing device via the communications link that indicates selection of an advertisement” (claim 1)
- “the advertising machine operable to . . . based upon the advertisement selection, generate a fee record” (claim 1)
- “toll” (claim 2, 18, 35, 43)
- “the advertising machine is further operable to extract a toll based upon the fee record” (claim 2)
- “the advertising machine is further operable to direct the data processing device to a website corresponding to the selection of the advertisement” (claim 3)
- “preference data” (claims 4, 12, 20, 28, 37)
- “the advertising machine is further operable to update preference data for the user based upon the selection of the advertisement” (claim 4)
- “the advertising machine is further operable to update the advertisement database based upon the selection of the advertisement” (claim 5)

- “the advertising machine is further operable to again provide the at least one advertisement that solicited the selection of the advertisement” (claim 6)
- “the associative search engine is operable to select at least one advertisement from an advertisement database based upon at least the search argument” (claims 7, 15)
- “the associative search engine is operable to select at least one advertisement from an advertisement database based upon at least the search results” (claims 8, 16)
- “a database search engine operable to: receive from the data processing device via the communications link a search request that includes a search argument” (claim 10)
- “a database search engine operable to . . . search at least one database using the search argument to produce search results” (claim 10)
- “the advertising machine operable to . . . receive a response from the data processing device via the communications link that indicates non-selection of the at least one advertisement” (claim 10)
- “the associative search engine is further operable to select at least one differing advertisement based upon the non-selection of the at least one advertisement” (claim 11)
- “the advertising machine is further operable to transmit the at least one differing advertisement via the communications link to the data processing device” (claim 11)
- “the advertising machine is further operable to update preference data for the user based upon the non-selection of the at least one advertisement” (claim 12)
- “the advertising machine is further operable to update the advertisement database based upon the non-selection of the advertisement” (claim 13)
- “the search results and the at least one advertisement are included in a web page transmitted to the data processing device via the communications link” (claim 14, 23, 30)
- “the advertising machine receiving from the data processing device via the communications link a search request that includes a search argument” (claims 17, 26)
- “the advertising machine searching at least one database using the search argument to produce search results” (claims 17, 26)
- “the advertising machine selecting at least one advertisement from an advertisement database based upon at least one of the search argument and the search results” (claims 17, 26)

- “the advertising machine transmitting the search results together with the at least one advertisement via the communications link to the data processing device” (claims 17, 26)
- “the advertising machine receiving a response from the data processing device via the communications link that indicates selection of an advertisement” (claim 17)
- “the advertising machine generating a fee record based upon the selection of the advertisement” (claim 17)
- “the advertising machine extracting a toll based upon the fee record” (claim 18)
- “the advertising machine directing the data processing device to a website corresponding to the selection of the advertisement” (claim 19)
- “the advertising machine updating preference data for the user based upon the selection of the advertisement” (claim 20)
- “the advertising machine updating the advertisement database based upon the selection of the advertisement” (claim 21)
- “the advertising machine again providing the at least one advertisement that solicited the selection of the advertisement” (claim 22)
- “the advertising machine selecting at least one advertisement from an advertisement database based upon at least the search argument” (claim 24)
- “advertising machine receiving a response from the data processing device via the communications link that indicates non-selection of the at least one advertisement” (claim 26)
- “the advertising machine selecting at least one differing advertisement based upon the non-selection of the at least one advertisement” (claim 27)
- “the advertising machine transmitting the at least one differing advertisement via the communications link to the data processing device” (claim 27)
- “the advertising machine updating preference data for the user based upon the non-selection of the at least one advertisement” (claim 28)
- “the advertising machine updating the advertisement database based upon the non-selection of the advertisement” (claim 29)
- “server computer” (claim 33-39, 41-45)
- “a server computer that is operable to provide advertisements via a communications link to a data processing device of a user” (claim 33)

- “at least one communications interface operable to interface with the data processing device of the user, a database search engine, and an associative search engine” (claim 33)
- “the server computer, using the at least one communications interface, is operable to: receive from the data processing device via the communications link a search request that includes a search argument” (claim 33)
- “the server computer, using the at least one communications interface, is operable to . . . interact with the database search engine to receive search results from the database search engine that are selected based upon the search argument” (claim 33)
- “the server computer, using the at least one communications interface, is operable to . . . interact with the associative search engine to receive an advertisement that is selected based upon at least one of the search argument and the search results” (claim 33)
- “the server computer, using the at least one communications interface, is operable to . . . transmit the search results together with the at least one advertisement via the communications link to the data processing device” (claim 33)
- “the server computer, in conjunction with the at least one communications interface, is further operable to: receive a response from the data processing device via the communications link that indicates selection of an advertisement” (claim 34)
- “the server computer, in conjunction with the at least one communications interface, is further operable to . . . based upon the advertisement selection, generate a fee record” (claim 34)
- “the server computer is further operable to extract a toll based upon the fee record” (claim 35)
- “the server computer is further operable to direct the data processing device to a website corresponding to the selection of the advertisement” (claim 36)
- “the server computer is further operable to update preference data for the user based upon the selection of the advertisement” (claim 37)
- “the server computer, using the at least one communication interface, is operable to interact with the database search engine to receive an advertisement that is selected based upon at least the search argument” (claim 39)
- “the server computer receiving from a data processing device via at least one communications interface a search request that includes a search argument” (claim 41)

- “the server computer interacting with a database search engine via the at least one communications interface to receive search results from the database search engine that are selected based upon the search argument” (claim 41)
- “the server computer interacting with an associative search engine via the at least one communications interface to receive an advertisement that is selected based upon at least one of the search argument and the search results” (claim 41)
- “the server computer transmitting the search results together with the at least one advertisement via the at least one communications interface to the data processing device” (claim 41)
- “the server computer receiving a response from the data processing device via the at least one communications interface that indicates selection of an advertisement” (claim 42)
- “based upon the advertisement selection, generating a fee record” (claim 42)
- “the server computer extracting a toll based upon the fee record” (claim 43)
- “the server computer directing the data processing device to a website corresponding to the selection of the advertisement” (claim 44)
- “the server computer updating preference data for the user based upon the selection of the advertisement” (claim 45)
- “the server computer interacting with an associative search engine via the at least one communication interface to receive an advertisement that is selected based upon at least the search argument” (claim 47)

'178 Patent

- “advertising machine” (claims 1, 12, 17, 18)
- “search argument” (claims 1, 5, 12, 14)
- “receiving from the data processing device via the communications link a search request that includes a search argument” (claim 1)
- “searching at least one database using the search argument to produce search results” (claim 1)
- “advertisement database” (claim 1)
- “selecting at least one advertisement from an advertisement database relating to at least one of the search argument and the search results” (claim 1)

- “transmitting the search results together with the at least one advertisement via the communications link to the data processing device” (claim 1)
- “search refinement input” (claims 1, 5, 6, 12, 14, 15)
- “receiving search refinement input from the data processing device via the communications link” (claim 1)
- “producing modified search results based upon at least the search refinement input” (claim 1)
- “selecting at least one other advertisement from the advertisement database based upon at least one of the search refinement input and the modified search results” (claim 1)
- “transmitting at least one of the modified search results and the at least one other advertisement via the communications link to the data processing device” (claim 1)
- “the search refinement input comprises at least one additional search argument” (claims 5, 14)
- “the search refinement input comprises additional search criteria” (claims 6, 15)
- “the at least one advertisement includes a link to a website sponsoring the advertisement” (claims 7, 16)
- “determining, via communication with the data processing device that the user does not select the at least one advertisement” (claim 8)
- “updating advertisements provided to the data processing device based upon a determination that the user does not select the at least one advertisement” (claim 8)
- “user preference data” (claims 9, 10)
- “selecting the at least one advertisement based upon a least one of user profile data and user preference data” (claim 9)
- “selecting the search results based upon at least one of user profile data and user preference data” (claim 10)
- “operating a data processing device of a user to receive advertisements” (claim 12)
- “based upon interaction with the user, creating a search request that includes a search argument” (claim 12)
- “transmitting to the advertising machine via the communications link the search request that includes the search argument” (claim 12)

- “receiving search results and at least one advertisement via the communications link from the advertising machine, the at least one advertisement relating to the search argument” (claim 12)
- “displaying the search results and the at least one advertisement on a display of the data processing device” (claim 12)
- “based upon interaction with the user, receiving search refinement input” (claim 12)
- “transmitting the search refinement input to the advertising machine via the communications link” (claim 12)
- “receiving modified search results and at least one other advertisement from the advertising machine that are based upon at least the search refinement input” (claim 12)
- “displaying the modified search results and the at least one other advertisement on the display of the data processing device” (claim 12)
- “determining that the user does not select the at least one advertisement” (claim 17)
- “transmitting the indication that the user does not select the at least one advertisement to the advertising machine via the communications link” (claim 17)
- “receiving user input to indicate selection of the at least one advertisement” (claim 18)
- “transmitting the indication that the user selects the at least one advertisement to the advertising machine via the communications link” (claim 18)

'183 Patent

- “advertising machine” (claim 1, 9, 11, 12, 14-20)
- “operating an advertising machine implemented on at least one computer to provide advertisements” (claim 1)
- “search argument” (claims 1, 9, 14)
- “receiving from the data processing device via the communications link a search request that includes a search argument” (claim 1)
- “searching at least one database using the search argument to produce search results” (claim 1)
- “advertisement database” (claim 1, 14)

- “selecting at least one advertisement from an advertisement database based upon at least one of the search argument and the search results” (claim 1)
- “web page data format” (claim 1, 14)
- “transmitting the search results together with the at least one advertisement via the communications link to the data processing device in a web page data format that causes the data processing device to display the search results in a first display portion of a display of the data processing device and to display the at least one advertisement in a second display portion of the display of the data processing device” (claim 1)
- “the at least one advertisement includes a link to a website sponsoring the advertisement” (claims 2, 10, 15)
- “updating a home web page to include the at least one advertisement” (claim 4)
- “the search results and the at least one advertisement are included in a web page transmitted to the data processing device via the communications link” (claims 5, 18)
- “search engine provider” (claim 6)
- “the at least one computer is operated by a search engine provider” (claim 6)
- “user profile data” (claims 7, 20)
- “compiling user profile data for the user based upon at least the search term” (claim 7)
- “determining, via communication with the data processing device that the user does not select the at least one advertisement” (claims 8, 13)
- “using the determination that the user does not select the at least one advertisement in subsequent advertisement selection operations” (claims 8, 13)
- “based upon interaction with the user, creating a search request that includes a search argument” (claim 9)
- “transmitting to the advertising machine via the communications link the search request that includes the search argument” (claim 9)
- “receiving search results and at least one advertisement via the communications link from the advertising machine, the at least one advertisement relating to the search argument” (claim 9)
- “displaying the search results in a first display portion of a display of the data processing device” (claim 9)

- “displaying the at least one advertisement in a second display portion of the display of the data processing device” (claim 9)
- “the search results and the at least one advertisement are included in a web page received from the advertising machine via the communications link” (claim 11)
- “user preference data” (claim 12)
- “transmitting user preference data to the advertising machine via the communications interface” (claim 12)
- “advertising machine implemented on at least one computer and operable to provide advertisements” (claim 14)
- “a communications interface operable to interface with the data processing device of the user via the communications link” (claim 14)
- “database search engine” (claim 14)
- “a database search engine operable to: receive from the data processing device via the communications link a search request that includes a search argument” (claim 14)
- “a database search engine operable to . . . search at least one database using the search argument to produce search results” (claim 14)
- “associative search engine” (claim 14)
- “an associative search engine operable to select at least one advertisement from an advertisement database based upon at least one of the search argument and the search results” (claim 14)
- “the advertising machine operable to transmit the search results together with the at least one advertisement via the communications link to the data processing device in a web page data format that causes the data processing device to display the search results in a first display portion of a display of the data processing device and to display the at least one advertisement in a second display portion of the display of the data processing device” (claim 14)
- “the advertising machine is further operable to update an access provider web page to include the at least one advertisement” (claim 16)
- “the advertising machine is further operable to update a home web page to include the at least one advertisement” (claim 17)
- “the advertising machine forms at least a portion of a search engine” (claim 19)

- “the advertising machine is further operable to compile user profile data for the user based upon at least the search term” (claim 20)

'883 Patent

- “operating an advertising machine implemented on at least one computer to provide advertisements” (claim 1)
- “user profile data” (claims 1-26, 28)
- “creating user profile data for the user” (claim 1)
- “storing the user profile data” (claims 1, 3, 4, 13)
- “search argument” (claims 1, 7, 10, 11, 16, 20, 22, 26)
- “receiving from the data processing device via the communications link a search request that includes a search argument” (claim 1)
- “network related information” (claims 1, 10, 11, 19,20, 28)
- “searching at least one database having data network related information using the search argument to generate search results” (claims 1, 10)
- “advertisement database” (claim 1, 10, 20, 28)
- “selecting at least one advertisement from an advertisement database relating to the search argument using the user profile data” (claims 1, 10)
- “transmitting the search results together with the at least one advertisement via the communications link to the data processing device” (claim 1)
- “prior purchasing information” (claims 2, 12, 21)
- “the user profile data includes prior purchasing information regarding the user” (claims 2, 21)
- “user profile database” (claims 2, 22)
- “storing the user profile data comprises storing the user profile data in a user profile database of the advertising machine” (claim 3)
- “storing the user profile data comprises storing the user profile data on the data processing device” (claim 4)
- “prior search history” (claims 5, 14, 22)
- “the user profile data is based upon prior search history of the user” (claims 5, 14, 24)

- “the user profile data is based upon user interests selected from the group consisting of social interests, family interests, political interests, technological interests, geographical interests, environmental interests, and educational interests” (claims 6, 15, 25)
- “updating the user profile data based upon the search argument” (claims 7, 16)
- “updating the user profile data using data obtained via interaction with the data processing device” (claim 8)
- “sorting the search results based upon the user profile data” (claim 9)
- “distinct differing databases” (claims 10, 28)
- “searching at least one database having data network related information using the search argument to generate search results and selecting at least one advertisement from an advertisement database relating to the search argument using the user profile data comprise accessing distinct differing databases” (claim 10)
- “operating a data processing device of a user to receive advertisements” (claim 11)
- “interacting with the advertising machine via the communications link to provide information used to create user profile data for the user” (claim 11)
- “transmitting to the advertising machine via the communications link a search request that includes a search argument” (claim 11)
- “receiving search results and at least one advertisement via the communications link from the advertising machine” (claim 11)
- “the search results obtained from at least one database having data network related information based upon the search argument” (claim 11)
- “advertisement information” (claims 11, 19)
- “the at least one advertisement obtained from at least one database having advertisement information based upon the search argument and the user profile data” (claim 11)
- “the user profile data is based upon prior purchasing information regarding the user” (claim 12)
- “updating the user profile data using data created via interaction with the advertising machine” (claim 17)
- “the search results have been sorted based upon the user profile data” (claim 18)

- “search results obtained from at least one database that stores network related information” (claim 19)
- “the at least one advertisement was obtained from at least one differing database that stores advertisement information” (claim 19)
- “an advertising machine implemented on at least one computer and operable to provide advertisements” (claim 20)
- “a communications interface operable to interface with the data processing device of the user via the communications link” (claim 20)
- “database search engine” (claim 20)
- “database search engine operable to: receive from the data processing device via the communications interface a search request that includes a search argument” (claim 20)
- “database search engine operable to . . . search at least one database having data network related information using the search argument to generate search results”
- “associative search engine” (claim 20, 22, 23)
- “an associative search engine operable to: create user profile data for the user” (claim 20)
- “an associative search engine operable to . . . store the user profile data”
- “an associative search engine operable to . . . select at least one advertisement from an advertisement database relating to the search argument using the user profile data”
- “the advertising machine operable to transmit the search results together with the at least one advertisement via the communications link to the data processing device” (claim 20)
- “the associative search engine is operable to store the user profile data in a user profile database of the advertising machine” (claim 22)
- “the associative search engine is operable to transmit the user profile data via the communications interface to the data processing device for storage” (claim 23)
- “the associate search engine is operable to update the user profile data based upon the search argument” (claim 26)
- “the at least one database having data network related information and the advertisement database comprise distinct differing databases” (claim 28)

Google further contends that asserted independent claims 17 and 22 of the '969 Patent; 9 of the '245 Patent; 1, 10, 17, and 33 of the '970 Patent; 14 of the '183 Patent; and 20 of the '883 Patent and all corresponding dependent asserted claims are invalid for indefiniteness pursuant to 35 U.S.C. § 112 for containing a method limitation within an apparatus claim. Because discovery is ongoing and additional claim construction may be necessary for several of Rockstar's asserted claims, Google hereby reserves the right to assert additional grounds for the invalidity of any of the asserted claims based on non-enablement or inadequate written description under 35 U.S.C. § 112(1) or indefiniteness under 35 U.S.C. § 112(2).

E. Other Grounds for Invalidity

In addition to the preceding invalidity contentions, Google further contends that each of the asserted claims of the asserted patents is drawn to subject matter that is not patentable under 35 U.S.C. § 101. Google reserves the right to assert any additional grounds of invalidity.

IV. P.R. 3-4 DOCUMENT PRODUCTION

A. Documents Related to Accused Instrumentalities Under P.R. 3-4(a)

Based on its investigation to date and its understanding of Rockstar's Infringement Contentions, Google also produced documents pursuant to P.R. 3-4(a), which directs the production of "[s]ource code, specifications, schematics, flow charts, artwork, formulas, or other documentation sufficient to show the operation of any aspects or elements of an Accused Instrumentality identified by the patent claimant in its P. R. 3-1(c) chart."

B. Documents Related to Prior Art Under 3-4(b)

Based on its investigation to date, pursuant to P.R. 3-4(b), Google has produced documents currently within its possession, custody, or control that are the prior art references

identified above and/or in the attached charts in connection with Google's P.R. 3-3(a) disclosures.

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record are being served via electronic mail with a copy of this document on May 23, 2014.

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