EXHIBIT C

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

BRIGHT RESPONSE, LLC
F/K/A POLARIS IP, LLC

v.

GOOGLE INC., et al.

NO. 2:07-CV-371-TJW-CE

JURY TRIAL DEMANDED

DEFENDANTS' SUPPLEMENTAL INVALIDITY CONTENTIONS

I.   INTRODUCTION

Pursuant to Rules 3-3 and 3-6 of the Local Patent Rules ("P.R.") of the Eastern District of Texas, defendants Google Inc. ("Google") and AOL, LLC ("AOL") (collectively referred to as "Defendants") hereby supplement their joint Invalidity Contentions with respect to the claims identified by plaintiff Bright Response, LLC ("Bright Response") in its Infringement Contentions and Supplemental Infringement Contentions. The claims asserted against Defendants are claims 26, 27, 28, 30, 31, 33, 38, 39, and 40 (collectively referred to as the "asserted claims") of U.S. Patent No. 6,411,947 (the "'947 patent").

With respect to each asserted claim and based on their investigation to date, Defendants hereby: (a) identify additional currently known items of prior art that either anticipates or renders obvious each asserted claim; (b) specify whether each such item of prior art (or a combination of several of the same) anticipates each asserted claim or renders it obvious; (c) submit charts 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) identify 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(b), Defendants hereby produce a copy of each additional item of prior art identified herein.

II.   RESERVATIONS

Consistent with P.R. 3-6, Defendants reserve the right to further amend these Invalidity Contentions.

The information and documents that Defendants produce are provisional and subject to further revision as follows. Defendants expressly reserve the right to amend the disclosures and document production herein should Bright Response provide any information that it failed to provide in its Infringement Contentions or Supplemental Infringement Contentions or should Bright Response amend its Infringement Contentions or Supplemental Infringement Contentions in any way. Defendants reserve the right to revise, amend, and/or supplement the information provided herein, including identifying and relying on additional references, should Defendants' further search and analysis yield additional information or references, consistent with the Patent Rules and the Federal Rules of Civil Procedure. Moreover, Defendants reserve the right to revise their ultimate contentions concerning the invalidity of the claims of the '947 patent, which may change depending upon the Court's construction of the claims of the '947 patent, any findings as to the priority date of the '947 patent, and/or positions that Bright Response 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 Defendants, may become relevant. In particular, Defendants are currently unaware of the extent, if any, to which Bright Response will contend that limitations of the asserted claims are not disclosed in the prior art identified by Defendants. To the extent that such an issue arises, Defendants reserve the right to identify other references that would have made the addition of the allegedly missing limitation to the disclosed device or method obvious.

Defendants' claim charts in Exhibit A 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 Defendants

reserve the right to rely on uncited 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. Defendants further reserve the right to rely on uncited 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 Exhibit A 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 Defendants' anticipation contentions and are not meant to suggest that any reference included in the combinations is not by itself anticipatory.

For purposes of these Supplemental Invalidity Contentions, Defendants identify prior art references and provide element-by-element claim charts based in part on the apparent constructions of the asserted claims advanced by Bright Response in its Infringement Contentions and Supplemental Infringement Contention. Nothing stated herein shall be treated as an admission or suggestion that Defendants agree with Bright Response regarding either the scope of any of the asserted claims or the claim constructions advanced by it in its Infringement Contentions, Supplemental Infringement Contentions, or anywhere else. Moreover, nothing in these Supplemental Invalidity Contentions shall be treated as an admission that any Defendant's accused technology meets any limitations of the claims.

Depending on the Court's construction of the claims of the '947 patent, and/or positions that Bright Response or its expert witness(es) may take concerning claim interpretation, infringement, and/or invalidity issues, different charted prior art references in Exhibit A 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, 3-4, and 3-6, Defendants hereby provide disclosures and related documents pertaining only to the asserted claims as identified by Bright Response in its Infringement Contentions and Supplemental Infringement Contentions. Defendants reserve the right to modify, amend, or supplement these Supplemental Invalidity Contentions to show the invalidity of any additional claims that the Court may allow Bright Response to later assert. Defendants further reserve the right to supplement their P.R. 3-4 document production should they later find additional, responsive documents.

III.   INVALIDITY CONTENTIONS

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

Defendants intend to rely upon the prior art identified pursuant to P.R. 3-3(a) in Exhibit B to these Invalidity Contentions. Exhibit B 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; (4) prior art under 35 U.S.C. § 102(f) by the name of the person and the circumstances under which the invention or any part thereof was derived; and (5) 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.

Defendants further intend to rely on inventor admissions concerning the scope of the prior art relevant to the asserted patent found in, *inter alia*: the patent prosecution history for the asserted patent and related patents and/or patent applications; any deposition testimony of the named inventors on the '947 patent; and the papers filed and any evidence submitted by Bright Response in conjunction with this litigation.

Discovery is ongoing, and Defendants' prior art investigation and third party discovery is therefore not yet complete. Defendants reserve the right to present additional items of prior art under 35 U.S.C. § 102(a), (b), (e), (f) and/or (g), and/or § 103 located during the course of discovery or further investigation. In addition, Defendants reserve the right to assert invalidity under 35 U.S.C. § 102(c) or (d) 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 '947 patent are listed in Table 1 below. A full citation to each reference is found in Exhibit B, along with the "Short Name" used to identify each reference throughout these disclosures, including in the claim charts of Exhibit A. Table 1 identifies the claims anticipated by each reference and the chart in Exhibit A 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 U.S. Patent No. 7,043,450

Exhibit A Chart	Prior Art	Anticipated Claims
Chart A-1	ALLEN '664	26, 27, 28, 30, 31, 38, 39, 40
Chart A-2	BAUER '402	26, 28, 38, 39
Chart A-3	BROWN '353	26, 28, 38, 39
Chart A-4	EZ READER	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-5	HO '771	26, 27, 28, 30, 31, 33, 38, 40
Chart A-6	SHOHAM '015	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-7	TANAKA '985	26, 27, 28, 40
Chart A-8	TURTLE '948	26, 27, 28, 30, 31, 33, 40
Chart A-9	SIMOUDIS '206	26, 27, 28, 30, 31, 38, 39, 40
Chart A-10	YOSHIURA '689	26, 27, 28, 30, 31, 38, 39, 40
Chart A-11	DOLAN '677	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-12	BAUMAN '524	26, 27, 28, 30, 31, 39, 40
Chart A-13	NGUYEN '823	26, 27, 28, 30, 31, 33, 38, 39, 40

Exhibit A Chart	Prior Art	Anticipated Claims
Chart A-14	ALLEN '218	26, 27, 28, 30, 31, 38, 39, 40
Chart A-15	LEWIS '418	26, 27, 28, 30, 31, 38, 39, 40
Chart A-16	NYUGEN '001	26, 27, 38, 39, 40
Chart A-17	HO '302	26, 27, 28, 30, 31, 38, 39, 40
Chart A-18	HALL '679	26, 27, 28, 30, 31, 38, 39, 40
Chart A-19	SASSIN '435	26, 27, 28, 30, 31, 38, 39, 40
Chart A-20	REDFERN '914	26, 27, 38, 39, 40
Chart A-21	TSO '201	26, 27, 28, 30, 31, 39, 40
Chart A-22	ALLEN '92	26, 27, 28, 30, 31, 39, 40
Chart A-23	ALLEN '93	26, 27, 40
Chart A-24	ALLEN '95	26, 27, 28, 30, 31, 38, 39, 40
Chart A-25	AAMODT '94	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-26	ACORN '92	26, 27, 28, 30, 38, 39, 40
Chart A-27	ALLEN '94	26, 27, 38, 39, 40
Chart A-28	AURIOL '95	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-29	CHANG '96	26, 27, 28, 30, 39, 40
Chart A-30	CHI '91	26, 27, 38, 39, 40
Chart A-31	COHEN '95	26, 28, 30, 31, 33
Chart A-32	COHEN '96	26, 27, 28, 30, 38, 39, 40
Chart A-33	DUTTA '91	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-34	FATHI-TORBAGHAN '95	26, 27, 28, 30, 31, 38, 39, 40
Chart A-35	FOX '95	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-36	GOLDING '91	26, 27, 28, 30, 31, 38, 39, 40
Chart A-37	GOLDING '96	26, 27, 38, 39, 40
Chart A-38	HALL '96	26, 27, 28, 30, 31, 38, 39, 40
Chart A-39	HILL '95	26, 27, 28, 30, 31, 38, 39, 40
Chart A-40	JEFFERIES '87	26, 27
Chart A-41	JURISICA '96	26, 27, 28, 30, 31, 38, 39, 40

Exhibit A Chart	Prior Art	Anticipated Claims
Chart A-42	KOWALSKI '91	26, 27, 28, 30, 31, 38, 39, 40
Chart A-43	KRIEGSMAN '93	26, 27, 30, 31, 39, 40
Chart A-44	LEAKE '96	26, 27, 28, 30, 31, 38, 39, 40
Chart A-45	LENZ '93	26, 27, 30, 31, 39, 40
Chart A-46	LOPEZ '93	26, 27, 28, 30, 31, 38, 39, 40
Chart A-47	MANAGO '93	26, 27, 28, 30, 31, 38, 39, 40
Chart A-48	NGUYEN '93	26, 27, 28, 30, 31, 39, 40
Chart A-49	NITTA '92	26, 27, 30, 31, 38, 39, 40
Chart A-50	POPPLE '96	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-51	PORTINAL '95	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-53[1]	RISSLAND '87	26, 27, 28, 30, 31, 38, 39, 40
Chart A-54	RISSLAND '89	26, 27, 28, 30, 31, 38, 39, 40
Chart A-55	RISSLAND '91	26, 27, 28, 30, 31, 38, 40
Chart A-56	RISSLAND '93	26, 27, 28, 30, 31, 39, 40
Chart A-57	RISSLAND '95	26, 27, 28, 30, 31, 38, 39, 40
Chart A-58	SIMOUDIS '92	26, 27, 28, 30, 31, 38, 39, 40
Chart A-59	SKALAK '91	26, 27, 28, 30, 31, 38,
Chart A-60	SKALAK '92	26, 27, 30, 31, 38, 40
Chart A-61	SLATOR '91	26, 27, 28, 30, 31, 38, 39, 40
Chart A-62	SURMA '95	26, 27, 28, 30, 31, 33, 38, 39, 40
Chart A-63	VENKATARAMAN '93	26, 27, 28, 30, 31, 38, 39, 40
Chart A-64	VOSSOS '91	26, 27, 28, 30, 31, 38, 39, 40
Chart A-65	WATSON '94	26, 27, 28, 30, 31, 38, 39, 40
Chart A-66	WATSON '96	26, 27, 28, 30, 31, 38, 39, 40
Chart A-67	WHITEHEAD '95	26, 27, 28, 30, 31, 33, 39, 40
Chart A-68	POLLOCK '88	26, 27, 28, 38, 39

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[1] Chart A-52 is intentionally skipped.

The art cited in Exhibit A is 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, and Defendants reserve the right to argue any claim elements of the '947 patent are disclosed in non-cited portions of these references.

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 '947 patent obvious, alone or in combination with other references, and teachings, suggestions, and/or motivations to combine them are outlined below and included in Exhibit A. 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, Defendants reserve the right to rely on any other combination of any prior art references disclosed herein. Defendants further reserve the right to rely upon combinations disclosed within the prosecution history of the references cited herein. These obviousness combinations reflect Defendants' present understanding of the potential scope of the claims that Bright Response appears to be advocating and should not be seen as Defendants' acquiescence to Bright Response's interpretation of the patent claims.

Based on Defendants' present understanding of the asserted claims of the '947 patent and the constructions that Bright Response asserts in its Claim Construction Brief, Defendants believe that the anticipation references discussed in section III.B and charted in Exhibit A each anticipate the claims of the '947 patent found in the references' respective charts in Exhibit A. However, if the finder of fact determines that some element of a given claim was not disclosed by an anticipation reference, then Defendants contend 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 asserted claims obvious.

In several locations in this section, 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 an admission 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.*, __ U.S. __, 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 1740-41. 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.*

Thus, the motivation to combine the teachings of the prior art references disclosed herein is found in the references themselves and/or: (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, (4) the fact that the prior art is generally directed towards automating bids on auction systems, and/or (5) the predictable results obtained in combining the different elements of the prior art.

Any reference or combinations of references that anticipates or makes obvious an asserted independent claim also makes obvious any asserted claim dependent on that independent claim because every element of each dependent claim was known by a person of ordinary skill at the time of the alleged invention, and it would have been obvious to combine those known elements with the independent claims at least as a matter of common sense and routine innovation. More specifically:

Claim 27 requires that "the source of the electronic message is not predetermined." It would have been obvious to one of ordinary skill that more than one person may make use of the method described in claim 26, and thus the source of an electronic message may not be predetermined. See, e.g., ALLEN '664 9:7-11: "In the automated help desk application 601, the user 119 may comprise a customer service representative 602, who may typically be receiving a telephone call 603 from a customer 604"; TURTLE '948 7:63-65: "The search query is developed by each individual user or researcher by input via the respective input/output terminal 22."

Claim 28 requires that the electronic message be classified as being able to be responded to automatically or requiring assistance from a human operator. It would be obvious to one of ordinary skill to determine whether an incoming message is capable of being responded to automatically prior to responding to that message. For instance, incoming messages may be poorly formatted, incomplete, or in another language, and one of ordinary skill would see the utility in ensuring that the message meets certain minimum criteria before automatically responding to it. See, e.g., ALLEN '664 9:30-41:

> However, it may occur that cases 105 which are matched all have low match
> quality 315. The application 601 may collect a set of question-answer pairs 608
> from the cases 105 which are matched. The application 601 may present a set of
> questions 609 from the question-answer pairs 608 to the customer service
> representative 602, who would provide a set of answers 610 to the application 601
> (typically by asking the customer 604). The application 601 may perform the

case-matching step 202 with the question-answer pairs 608 as additional attribute-value pairs 303 to match. In a preferred embodiment, weights may be assigned to the description 606 and to each question-answer pair 608.

See also HO '771 20:58 – 21:8-12: "In the present invention, the grammatical structure analyzer 102 may decide that the natural-language question cannot be parsed into grammatical components based on the predefined context-free grammatical structure…. In one embodiment, the analyzer produces (Step 402) an answer for each meaning and ignores those meaning with no answer. In another embodiment, the 10 analyzer asks (Step 400) the user to identify the correct grammatical meaning."

Furthermore, Bright Response has asserted that "requiring assistance from a human operator" can be met if "a manual reviewer review[s] the electronic message or information derived from the electronic message." (Claim Construction Brief, 11.) It would be obvious to one of ordinary skill to have a manual reviewer review the electronic message or information derived from the electronic message, even if that reviewer does not contribute to the message response. Quality assurance testing is a standard part of software maintenance, and that process generally involves reviewing selected inputs and outputs of a computerized method. See, e.g., TANAKA '985 8:14-26: "The invention according to another embodiment is an inference method as claimed in any of the embodiments as discussed in the fifth paragraph above, further comprising… an evaluation input process for accepting expert's evaluation on the inference process and inference result of inference processing performed in said re-executing process." SHOHAM '015, 8:61-63: "The user provides relevance feedback to the system via a user interface for each of the information resources presented at block 128."

Claim 28 further requires that the message be responded to automatically if it is classified as being responded to automatically. It would be obvious to one of ordinary skill to respond to a message automatically after determining that the message can be responded to automatically. Indeed, there is little point in determining whether a message can be responded to automatically if the method does not then respond to such messages automatically. *See, e.g.,* ALLEN '664, 9:21-29:

"In the case-matching step 202, the application 601 may attempt to match the customer problem 605 to one or more cases 105 in the case base 104 using just the description 606 of the customer problem 605. If the match quality 315 of the case 105 which are matched is high, the application 601 may perform the best-case step 203 and following steps. The action 309 which the application 601 performs is to provide an advice message 607 to the customer service representative 602, who may then provide advice to the customer 604."

See also HO '771, 2:13-17: "In one embodiment, the system generates study materials that introduce the subject to the user. After studying the presented materials, he can begin asking questions. The system generates an answer to each question, and presents it to him."

Claim 30 describes a number of steps relating to the case-based reasoning technique claimed in step 26(b). It requires preparing a case model of the electronic message consisting of the text and attributes of that message. The step then compares the text and attributes of the incoming message's case model with the text and attributes of the stored case models. Each time the text and attributes match, the match score goes up; each time the text and attributes don't match, the match score does not go up.

Performing these steps would be obvious to one of ordinary skill, given the requirement in step 26(b) that the method employ a case-base knowledge engine. Case-based reasoning by definition examines a corpus of prior cases for the closest matching case. *See, e.g.,* ALLEN '664 9:21-29:

In the case-matching step 202, the application 601 may attempt to match the customer problem 605 to one or more cases 105 in the case base 104 using just the description 606 of the customer problem 605. If the match quality 315 of the case 105 which are matched is high, the application 601 may perform the best-case step 203 and following steps. The action 309 which the application 601 performs is to provide an advice message 607 to the customer service representative 602, who may then provide advice to the customer 604.

See also http://en.wikipedia.org/wiki/Case-based_reasoning[2]: "Retrieve: Given a target problem, retrieve cases from memory that are relevant to solving it. A case consists of a problem, its solution, and, typically, annotations about how the solution was derived." For text-based

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[2]   Plaintiff Bright Response cited to the Wikipedia entry as extrinsic evidence of the meaning of "case base knowledge engine." (Dkt. 20, Ex. A at 4.)

messages, determining which prior case matches involves comparing the text and attributes of a message with the text and attributes of the prior messages. Similarly, one of ordinary skill would expect that the match score would increase whenever text and attributes matched, and that the match score would not increase whenever text and attributes did not match. Indeed, it makes no sense to ignore matches between two cases when computing their match score. Similarly, it makes no sense to decrease the *match* score in the event of a match, or to increase the *match* score in the event of no match.

Claim 31 requires increasing the match score by a predetermined match weight in the event of a match, and decreasing the match score by a predetermined mismatch weight in the event of no match. Bright Response has apparently taken the position that any match weight or mismatch weight meets this claim limitation, including weights that differ with each match or mismatch. (Supplemental Infringement Contentions at 63-69.) Bright Response has also taken the position that any method of increasing or decreasing the match score meets the claim limitations. (Claim Construction Brief at 17-20.) It would be obvious to one of ordinary skill to use *some* method of increasing the match score in the event of the match; indeed, there is little point to employing a case-based knowledge engine if one does not keep track of the match scores. It would also be obvious to one of ordinary skill to use *some* method of decreasing the match score in the event of a mismatch, for the same reasons. *See, e.g.*, ALLEN '664 5:15-26:

> Cases 105 which are hits may be noted in a match table 314. The cases 105 in the match table 314 may be evaluated for a match quality 315, and the match quality 315 for each case 105 may be recorded in the match table 314. In a preferred embodiment, the inference engine 111 may determine match quality 315 for each case 105 in the match table 314 by a weighted sum of an evaluation 316 of those attribute-value pairs 303 which are matched. In a preferred embodiment, the weights assigned to each attribute-value pair 303 may be predetermined and may be altered by the user 119.

Claim 33 requires normalizing the match score by dividing by the maximum possible match score. It would be obvious to one of ordinary skill to normalize the match score. Failing to do so would result in large, possibly irrelevant cases being given priority over small, potentially more relevant cases. See, e.g., CBR-EXPRESS at 9:

A typical algorithm for calculating nearest neighbour matching is the one used by Cognitive Systems ReMind software reported in Kolodner [93] where w is the importance weighting of a feature (or slot), *sim* is the similarity function, and *fI* and *fR* are the values for feature *i* in the input and retrieved cases respectively.

$$\frac{\sum_{i=1}^{n} w_j \times sim\left(f_i^I, f_i^R\right)}{\sum_{i=1}^{n} w_i}$$

Figure 2 A Nearest Neighbour Algorithm

The numerator of the nearest neighbor algorithm computes the similarity between a feature i of the presented case f^I and a stored case f^R. The similarity is then multiplied by a weight associated with that feature w_i, and all features are added together. The denominator sets the similarity between feature i of the presented case f^I and a stored case f^R to 1, i.e. a perfect match between the presented case and the stored case for every feature. It then sums all the weights associated with each feature. Accordingly, the nearest neighbor algorithm normalizes the match score by dividing it by a maximum possible score for the stored case model, where the maximum possible score is determined when all of the attributes and text of the case model and the stored case model match—that is, when all of the similarity factors are set to 1.

The ALLEN '664 reference expressly incorporates the CBR-Express system. *See* ALLEN '664 at 10:40-44. Furthermore, the CBR-Express system expressly incorporates nearest neighbor matching. *See* CBR-EXPRESS at 11. As that reference provides, nearest-neighbor matching is a standard part of many case-based reasoning systems, and accordingly it would b obvious to one of ordinary skill to incorporate it.

Claim 38 requires that the predetermined response be altered prior to delivery. It would be obvious to one of ordinary skill to make some changes to the predetermined response prior to sending it out. For instance, the predetermined response can be altered to include the customer's name, e.g. "Dear Mr. Smith." Potentially altering the predetermined response associated with the matching case is a part of case-based reasoning. *See, e.g.,* ALLEN '664, 9:21-29:

In the description step 201, the application 601 may retrieve a text string description 606 of the customer problem 605. In the case-matching step 202, the application 601 may attempt to match the customer problem 605 to one or more cases 105 in the case base 104 using just the description 606 of the customer problem 605. If the match quality 315 of the case 105 which are matched is high, the application 601 may perform the best-case step 203 and following steps. The action 309 which the application 601 performs is to provide an advice message 607 to the customer service representative 602, who may then provide advice to the customer 604.

See also http://en.wikipedia.org/wiki/Case_based_reasoning: "Reuse: Map the solution from the previous case to the target problem. This may involve adapting the solution as needed to fit the new situation. In the pancake example, Fred must adapt his retrieved solution to include the addition of blueberries."

Claim 39 requires that the electronic message contain fixed data, while claim 40 requires that the electronic message contain variable data. It would be obvious to one of ordinary skill to process messages containing fixed or variable data; indeed, it would not make sense for one of ordinary skill to refuse to process a message that contains fixed or variable data. See, e.g., ALLEN '664, 3:59 – 4:1:

In a preferred embodiment, the user 119 may enter data relating to the problem by means of the user interface 118. For example, the user 119 may complete an on-screen form, or may answer a set of questions provided by data-gathering software in the inference engine 111. In a case-matching step 202, the inference engine 111 attempts to match the problem to one or more cases 105 in the case base 104.

1. Using Rule Based and Case Based Reasoning

As the '947 patent concedes, both rule-based knowledge engines and case-based knowledge engines were well-known in the art at the time the patent was filed. See '947 patent at 1:60 – 2:62. Furthermore, using a rule-based and case-based knowledge engine was also known in the art. Indeed, many if not most case-based systems employ preliminary heuristics to narrow the number of potentially relevant cases within the case-base, thereby saving the processing time required to examine cases that may be clearly not relevant. Numerous prior art references disclose the combination of rule-based and case-based knowledge engines,

particularly given the extremely broad interpretation Plaintiff has apparently given to "case-based knowledge engine." Exemplary references are listed below in Table 2.

Table 3: Non-exclusive List of Rule-Based and Case-Based Knowledge Engines

RBR + CBR Knowledge Engines	Exhibit A Chart
Chart A-1	ALLEN '664
Chart A-2	BAUER '402
Chart A-3	BROWN '353
Chart A-4	EZ READER
Chart A-5	HO '771
Chart A-6	SHOHAM '015
Chart A-7	TANAKA '985
Chart A-8	TURTLE '948
Chart A-9	SIMOUDIS '206
Chart A-10	YOSHIURA '689
Chart A-11	DOLAN '677
Chart A-12	BAUMAN '524
Chart A-13	NGUYEN '823
Chart A-14	ALLEN '218
Chart A-15	LEWIS '418
Chart A-16	NYUGEN '001
Chart A-17	HO '302
Chart A-18	HALL '679
Chart A-19	SASSIN '435
Chart A-20	REDFERN '914
Chart A-21	TSO '201
Chart A-22	ALLEN '92
Chart A-23	ALLEN '93
Chart A-24	ALLEN '95
Chart A-25	AAMODT '94

RBR + CBR Knowledge Engines	Exhibit A Chart
Chart A-26	ACORN '92
Chart A-27	ALLEN '94
Chart A-28	AURIOL '95
Chart A-29	CHANG '96
Chart A-30	CHI '91
Chart A-31	COHEN '95
Chart A-32	COHEN '96
Chart A-33	DUTTA '91
Chart A-34	FATHI-TORBAGHAN '95
Chart A-35	FOX '95
Chart A-36	GOLDING '91
Chart A-37	GOLDING '96
Chart A-38	HALL '96
Chart A-39	HILL '95
Chart A-40	JEFFERIES '87
Chart A-41	JURISICA '96
Chart A-42	KOWALSKI '91
Chart A-43	KRIEGSMAN '93
Chart A-44	LEAKE '96
Chart A-45	LENZ '93
Chart A-46	LOPEZ '93
Chart A-47	MANAGO '93
Chart A-48	NGUYEN '93
Chart A-49	NITTA '92
Chart A-50	POPPLE '96
Chart A-51	PORTINAL '95
Chart A-53	RISSLAND '87
Chart A-54	RISSLAND '89

RBR + CBR Knowledge Engines	Exhibit A Chart
Chart A-55	RISSLAND '91
Chart A-56	RISSLAND '93
Chart A-57	RISSLAND '95
Chart A-58	SIMOUDIS '92
Chart A-59	SKALAK '91
Chart A-60	SKALAK '92
Chart A-61	SLATOR '91
Chart A-62	SURMA '95
Chart A-63	VENKATARAMAN '93
Chart A-64	VOSSOS '91
Chart A-65	WATSON '94
Chart A-66	WATSON '96
Chart A-67	WHITEHEAD '95
Chart A-68	POLLOCK '88

To the extent any of the references listed in Table 4 are deemed to lack the limitations present in a dependent claim, the reference in combination with the knowledge of one of ordinary skill in the art would render that claim obvious. See above.

2. Normalization

As described more fully above, normalizing match scores was regularly practiced in the art. Exemplary references are listed below in Table 5.

Table 6: Normalization References

Normalization References	Exhibit A Chart
Chart A-1	ALLEN '664
Chart A-2	BAUER '402
Chart A-3	BROWN '353
Chart A-4	EZ READER

Normalization References	Exhibit A Chart
Chart A-5	Ho '771
Chart A-6	Shoham '015
Chart A-7	Tanaka '985
Chart A-8	Turtle '948
Chart A-11	Dolan '677
Chart A-13	Nguyen '823
Chart A-16	Nyugen '001
Chart A-20	Redfern '914
Chart A-25	Aamodt '94
Chart A-28	Auriol '95
Chart A-31	Cohen '95
Chart A-33	Dutta '91
Chart A-35	Fox '95
Chart A-37	Golding '96
Chart A-50	Popple '96
Chart A-51	Portinal '95
Chart A-62	Surma '95
Chart A-67	Whitehead '95

As detailed above, it would be obvious to one of ordinary skill to use the teachings described in any of the references in Table 7 to normalize the match scores generated by a case-based knowledge engine.

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/or the review and analysis of expert witnesses.

To the extent that the following contentions reflect constructions of claim limitations consistent with Bright Response's Infringement Contentions, Supplemental Infringement Contentions, or Claim Construction Brief, no inference is intended nor should any be drawn that Defendants agree with Bright Response's claim constructions, and Defendants expressly reserve their right to contest such claim constructions. Defendants offer such contentions in response to Bright Response's claim construction theories without prejudice to any position they may ultimately take as to any claim construction issues.

Claim 26 and all corresponding dependent claims are invalid for indefiniteness pursuant to 35 U.S.C. § 112. Specifically, the claim term "non-interactive electronic message" is insolubly ambiguous as set forth in Defendants' Responsive Claim Construction Brief.

Claim 28 and all of its dependent claims are indefinite under 35 U.S.C. § 112(4) for failing to incorporate all limitations of claim 26. Separately, claim 30 and all of its dependent claims are indefinite under 35 U.S.C. § 112(4) for failing to incorporate all limitations of claim 28.

Because discovery is ongoing, Defendants hereby reserve the right to assert additional grounds for the invalidity of any of the 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/Unenforceability

The '947 patent is invalid under the on sale and public use bars. Publicly available documents establish that the alleged invention was ready for patenting, offered for sale, and in public use as early as 1993:

- A product announcement in the Software Industry Report dated February 15, 1993, stating: "Inference Corp. says its new ART(*)Enterprise product is the industry's 'first integrated multiplatform tool for building enterprise-wide computing applications.' . . . Features include . . . business rule processing and Inference's Case-Based Retrieval technology for accessing unstructured information." "Beta versions of ART(*)Enterprise for Macintosh, OS/2, UNIK (Sun, HP, IBM, DEC and NCR), and MVS (IMS, CICS and TSO) will be released throughout 1993. Pricing for development seats starts at $6,995 depending on the platform. Andersen Consulting, Dun & Bradstreet, IDS Financial Services and Swiss Bank are already using the beta of the soon-to-be-released Windows version to build client/server applications."

- An article from Software Magazine dated March 15, 1993 titled, "ARTEnterprise provides multiplatform development – Inference Corp.'s program development software" lists the features integrated by Art*Enterprise and states, "[a]lso included is . . . business rule processing and Inference's Case-based retrieval technology for accessing unstructured information." The article states, "[i]t is shipping initially for Microsoft Windows, with Macintosh, OS/2, Unix and MVS versions to be released on beta throughout 1993."

- The article "Case-Based Reasoning: A Review" was published in the December 1994 (Vol. 9, No. 4) issue of The Knowledge Engineering Review. It states, "Art**Enterprise* is the latest incarnation of Inference Corporation's flagship development product. . . . ART**Enterprise* offers a variety of representational paradigms including: . . . rules; and cases. . . . ART**Enterprise* is currently (Spring 1994) undergoing advanced beta-testing with selected sites and will be available commercially shortly."

- The EZ READER reference—which was submitted to the PTO as provisional application No. 60/042,494 on April 3, 1997 and to which the '947 patent claims priority—was presented at the Eighth Annual Conference on Innovative Applications of Artificial Intelligence in August 1996. (http://www.aaai.org/Library/IAAI/iaai96contents.php). The IAAI required that qualifying papers be submitted by January 1996—more than twelve months before the paper was resubmitted to the PTO. (http://www.aaai.org/ Conferences/IAAI/1996/iaai96-call.pdf). Furthermore, the same call to papers specifies that "[c]ase-study presentation papers, highlighting any area of AI technology, must describe deployed applications with measurable benefits." Accordingly, the system described by EZ READER was in use *before* January 1996.

Furthermore, the authors of the EZ READER paper were named inventors of the '947 patent, yet they failed to inform the PTO that the claimed invention was in use prior to January 1996. This omission is material, as a product within the public use prior to April 1996 would not be entitled to patentability under the on-sale bar. Accordingly, the '947 patent is unenforceable due to the applicants' inequitable conduct.

Because discovery is ongoing, Defendants reserve the right to assert any grounds of invalidity or unenforceability.

IV. P.R. 3-4 DOCUMENT PRODUCTION

A. Documents Related to Prior Art Under P.R. 3-4(b)

Based on their investigation to date, pursuant to P.R. 3-4(b), Defendants hereby jointly produce documents currently within their possession, custody, or control that are the prior art

references identified above and/or in the attached charts in connection with Defendants'

Supplemental Invalidity Contentions.

DATED: March 19, 2010   Respectfully submitted,

                                          By   /s/ Antonio Sistos

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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 Defendants' Supplemental Invalidity Contentions on March 19, 2010.

 /s/ Antonio Sistos

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