

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

PARUS HOLDINGS, INC.,
Patent Owner.

IPR2022-00279
Patent 6,721,705 B2

Before THU A. DANG, DAVID C. McKONE, and STACEY G. WHITE,
Administrative Patent Judges.

McKONE, *Administrative Patent Judge.*

JUDGMENT
Final Written Decision
Determining No Challenged Claims Unpatentable
35 U.S.C. § 318(a)

I. INTRODUCTION

A. *Background and Summary*

Google LLC (“Petitioner”) filed a Petition requesting an *inter partes* review of claims 1–4 of U.S. Patent No. 6,721,705 B2 (Ex. 1001, “the ’705 patent”). Paper 1 (“Pet.”). Parus Holdings, Inc. (“Patent Owner”) filed a Preliminary Response to the Petition. Paper 6 (“Prelim. Resp.”). We initially declined to institute an *inter partes* review of the ’705 patent (Paper 7), but upon considering Petitioner’s Request for Rehearing (Paper 8)¹, as well as Petitioner’s and Patent Owner’s Supplemental Papers supporting and opposing rehearing (Papers 13, 15), we instituted this proceeding pursuant to 35 U.S.C. § 314. Paper 16 (“Dec.”).

Patent Owner filed a Patent Owner’s Response (Paper 25, “PO Resp.”), Petitioner filed a Reply to the Patent Owner’s Response (Paper 28, “Reply”), and Patent Owner filed a Sur-reply to the Reply (Paper 35, “Sur-reply”). On May 22, 2024, pursuant to agreement of the parties (Paper 33), we partially terminated this proceeding as to claims 3 and 4 without reaching a decision as to those claims; thus, this Decision only addresses claims 1 and 2. Paper 36. An oral argument was held in this proceeding on June 12, 2024. Paper 39 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a final written decision under 35 U.S.C. § 318(a) as to the patentability of claims 1 and 2. Based on the record before us, Petitioner has not proved, by a preponderance of the evidence, that claims 1 and 2 are unpatentable.

¹ Petitioner requested Precedential Opinion Panel (POP) review of our decision denying institution (*see* Paper 8, 1; Paper 9), and POP review was denied (Paper 10).

B. Related Matters

The parties identify the following district court proceedings as related to the '705 patent: *Parus Holdings Inc. v. Samsung Electronics America, Inc.*, Civil Action No. 6:21-cv-01073; *Parus Holdings Inc. v. Apple Inc.*, Civil Action No. 6:21-cv-00968; *Parus Holdings Inc. v. Microsoft Corp.*, Civil Action No. 6:21-cv-00570; *Parus Holdings Inc. v. Google LLC f/k/a Google Inc.*, Civil Action No. 6:21-cv-00571. Pet. 8²; Paper 3, 2.

Petitioner also identifies the following *inter partes* review proceedings: *Apple Inc. v. Parus Holdings, Inc.*, IPR2020-00686 (finding no claim of U.S. Patent No. 7,076,431 (“the ’431 patent”) unpatentable); *Google LLC v. Parus Holdings, Inc.*, IPR2020-00846 (determining all challenged claims of the ’431 patent unpatentable) (affirmed *Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365 (Fed. Cir. 2023)); *Apple Inc. v. Parus Holdings, Inc.*, IPR2020-00687 (finding no claim of U.S. Patent No. 9,451,084 (“the ’084 patent”) unpatentable); *Google LLC v. Parus Holdings, Inc.*, IPR2020-00847 (determining all challenged claims of the ’084 patent unpatentable) (affirmed *Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365); and *Microsoft Corp. v. Parus Holdings, Inc.*, IPR2022-00137 (denying institution of an *inter partes* review of the ’705 patent). Pet. 9.

In the Reply, Petitioner also identifies *Google LLC v. Parus Holdings, Inc.*, IPR2022-00358 (determining all challenged claims of U.S. Patent No. 7,881,941 B2 (“the ’941 patent”) unpatentable); and *Google LLC v. Parus Holdings, Inc.*, IPR2022-00523 (determining all challenged claims of U.S. Patent No. 8,185,402 B2 (“the ’402 patent”) unpatentable).

² In this section, we refer to page 8 of the preliminary portion of the Petition. The remainder of this Decision refers to the pages of the principal portion of the Petition.

C. The '705 Patent

The '705 patent relates to a “system that allows users to browse web sites and retrieve information by using conversational voice commands.”

Ex. 1001, 1:15–18. Figure 1 of the '705 patent is reproduced below.

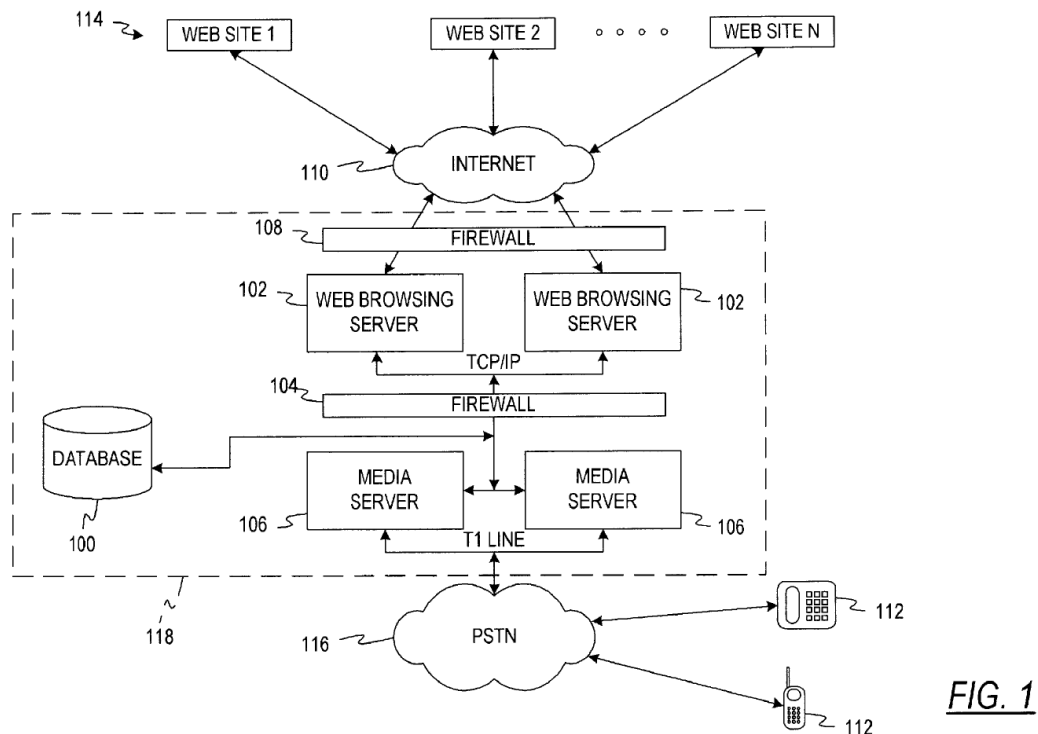


Figure 1 is a block diagram of a “voice browsing system.” *Id.* at 4:10–11. The system includes database 100 connected to web browsing servers 102 and media servers 106. *Id.* at 4:58–61. Web browsing servers 102 provide access to a network like Internet 110, through which websites 114 may be accessed. *Id.* at 6:59–65.

Voice commands may be provided by a user to voice-browsing system 118 using public switched telephone network (“PSTN”) 116 and establishing a connection between the user’s voice enabled device 112 and media server 106. *Id.* at 15:31–37. Once the connection is established, media server 106 initiates an interactive voice response application that presents the user with a list of options based on the available web-site

categories, from which the user makes selections by speaking into voice enabled device 112. *Id.* at 15:37–45. The user’s speech commands are converted into data messages that are sent to a “network interface system,” such as a “web browsing server” that “then accesses the appropriate information source, such as a web site, to gather information requested by the user.” *Id.* at 4:46–52.

“A preferred embodiment of the voice browser system and method uses a web site polling and ranking methodology that allows the system to detect changes in web sites and adapt to those changes in real-time.” *Id.* at 3:52–55. Thus, database 100 contains a separate set of records for each website accessible by the system, with each website record containing (1) a “rank number” of the website, (2) the associated uniform resource locator (“URL”) for the website, (3) a timestamp indicating the last time the website was accessed, and (4) a command that enables format-specific communication with the website. *Id.* at 4:64–5:6. In addition, database 100 categorizes each database record according to the “type” (and perhaps subtype) of information provided by each website, such as “weather” or “stock” information. *Id.* at 5:7–23. In responding to a user voice command, media server 106 uses recognition results generated by a speech-recognition engine to retrieve a website record from database 100 that can provide responsive information, particularly the highest-ranked website record in the appropriate category. *Id.* at 6:38–50.

A “polling mechanism continually polls or ‘pings’ each of the sites listed in the database 100.” *Id.* at 16:50–52. Web browsing server 102 sends brief data requests to each site listed in database 100 and monitors the response to determine whether it is complete and in the expected format. *Id.* at 16:52–59. Polled websites that provide a complete response in the

expected format “have their ranking established based on their ‘response time’” so that websites with faster response times are ranked higher than those with slower response times. *Id.* at 16:59–63. “If the web browsing server 102 receives no response from the polled web site or if the response received is not in the expected format, then the rank of that web site is lowered.” *Id.* at 16:63–66.

Claims 1 and 2 are reproduced below (bracketed numbering added to track the numbering used in the Petition):

1. An Internet voice browsing system for gathering information from Web sites on the Internet, comprising:
 - [1A] a CPU-based media server, said media server including at least a speech recognition engine, a speech synthesis engine, an interactive voice response application, a call processing system, and telephony hardware, said media server configured to receive a speech command from a user and to convert said speech command into a digital data message;
 - [1B] a database containing a list of web sites stored on magnetic media,
 - [1C] a rank number assigned to each one of said web sites and stored in said database;
 - [1D] a CPU-based web browsing server, said web browsing server including at least a content extraction agent, a content fetcher, a polling and ranking agent, and a content descriptor file,
 - [1E] said web browsing configured to receive said digital data message from said media server and configured to access one of said web sites having the highest said rank number and to retrieve information from said one of said web sites;
 - [1F] said media server configured to generate an audio message representing said information and to transmit said audio message to said user; and

[1G] a polling mechanism configured to periodically send a polling digital data message to each one of said web sites and to receive a response, each of said web sites thereby becoming a polled web site, [1H] said polling mechanism configured to decrease said rank number of said polled web site if no response is received from said polled web site, [1I] said polling mechanism also configured to decrease said rank number of said polled web site if an unexpected response is received from said polled web site, and [1J] said polling mechanism also configured to decreases said rank number of said polled web site if a response time of said polled web site is longer than a second response time of a second polled web site.

2. A method for using voice commands to browse Internet web sites, comprising the steps of:

- [2A] providing a database storing a list of web sites on magnetic media;
- [2B] assigning a rank number to each of said web sites and storing said rank number in said database;
- [2C] receiving a voice command from a user and converting said command into a digital data message;
- [2D2] providing a CPU-based web browsing system for receiving said digital data message and accessing one of said web sites having the highest said rank number, [2D1] said web browsing system including at least a content extraction agent, a content fetcher, a polling and ranking agent, and a content file;
- [2E] receiving at said web browsing system response data from said web site with the highest rank number;
- [2F] converting said response data into an audio message that is transmitted to said user;

[2G] periodically polling each of said web sites listed in said database, each of said web sites thereby becoming a polled web site;

[2H] decreasing said rank number of said polled web site if no response is received from said polled web site;

[2I] decreasing said rank number of said polled web site if an unexpected response is received from said polled web site; and

[2J] decreasing said rank number of said polled web site if a response time of said polled web site is longer than a second response time of a second polled web site.

D. Evidence

Petitioner relies on the references listed below.

Reference		Date	Exhibit No.
Kovatch	WO 01/50453 A2	July 12, 2001	1004
Burrows	US 5,765,149	June 9, 1998	1006
Wise	US 5,884,262	Mar. 16, 1999	1007

Petitioner also relies on the Declaration of Stuart J. Lipoff (Ex. 1002), and the Reply Declaration of Mr. Lipoff (Ex. 1061).

Patent Owner relies on the Declaration of Benedict Occhiogrosso (Ex. 2009).

*E. The Instituted Grounds of Unpatentability*³

Claim(s) Challenged	35 U.S.C. §	References/Basis
1, 2	103(a) ⁴	Kovatch, Burrows
1, 2	103(a)	Wise, Burrows

II. ANALYSIS

A. Claim Construction

We construe claims “using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b), including construing the claim in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b) (2019); *see also Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc).

Petitioner contends that we should give the claim terms their plain and ordinary meaning, and does not identify any claim term for construction. Pet. 7. Similarly, “Patent Owner believes that claim construction is unnecessary and all terms of the Challenged Claims should be given their plain and ordinary meanings.” PO Resp. 1.

Based on the record before us, we do not find it necessary to provide express claim constructions for any terms. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (noting that “we need only construe terms ‘that are in controversy, and only

³ As noted above, this proceeding has been partially terminated as to claims 3 and 4; thus, this decision only addresses claims 1 and 2. Paper 36.

⁴ The Leahy-Smith America Invents Act (“AIA”), Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103. Because the ’705 patent was filed before March 16, 2013, the effective date of the relevant amendment, the pre-AIA version of § 103 applies.

to the extent necessary to resolve the controversy”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

B. Obviousness of Claims 1 and 2 over Kovatch and Burrows

Petitioner contends that claims 1 and 2 would have been obvious over Kovatch and Burrows. Pet. 12–33. For the reasons given below, Petitioner has not made a sufficient showing.

A claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed subject matter and the prior art are “such that the claimed invention as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the claimed invention pertains.” We resolve the question of obviousness on the basis of underlying factual determinations, including (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and (4) objective evidence of nonobviousness, i.e., secondary considerations.⁵ See *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

1. Level of Skill in the Art

Petitioner, relying on the testimony of Mr. Lipoff, contends that a person of ordinary skill in the art “would have had a Bachelor’s Degree in electrical engineering, computer science or a related field, and at least two years of experience with voice interfaces and information processing,” and that “[m]ore education could substitute for less experience, and vice versa.”

⁵ The complete record does not include allegations or evidence of objective indicia of nonobviousness.

Pet. 6 (citing Ex. 1002 ¶¶ 63–75). Patent Owner makes substantially the same proposal. PO Resp. 1. On the complete record, we are persuaded that Petitioner’s proposal is consistent with the technology described in the Specification and the cited prior art and adopt Petitioner’s proposed level of skill.

2. *Scope and Content of the Prior Art*

a) *Overview of Kovatch*

Kovatch describes an interactive voice response system for accessing information from a computer network via remote telephony devices. Ex. 1005, 1:10–12. The interactive voice response system analyzes utterances spoken by users and matches the utterances with an index of destinations. *Id.* at 4:25–26. The system produces a list of valid destinations and guides the user along a path with pre-recorded voice prompts. *Id.* at 4:26–27. The user accessing the system navigates using speech and/or telephone keypad entry. *Id.* at 4:28–29. Kovatch describes the system in reference to a commercial system, “HeyAnita” or “Anita.” *Id.* at 5:25–27. The “Anita” server architecture is illustrated in Figure 1, reproduced below.

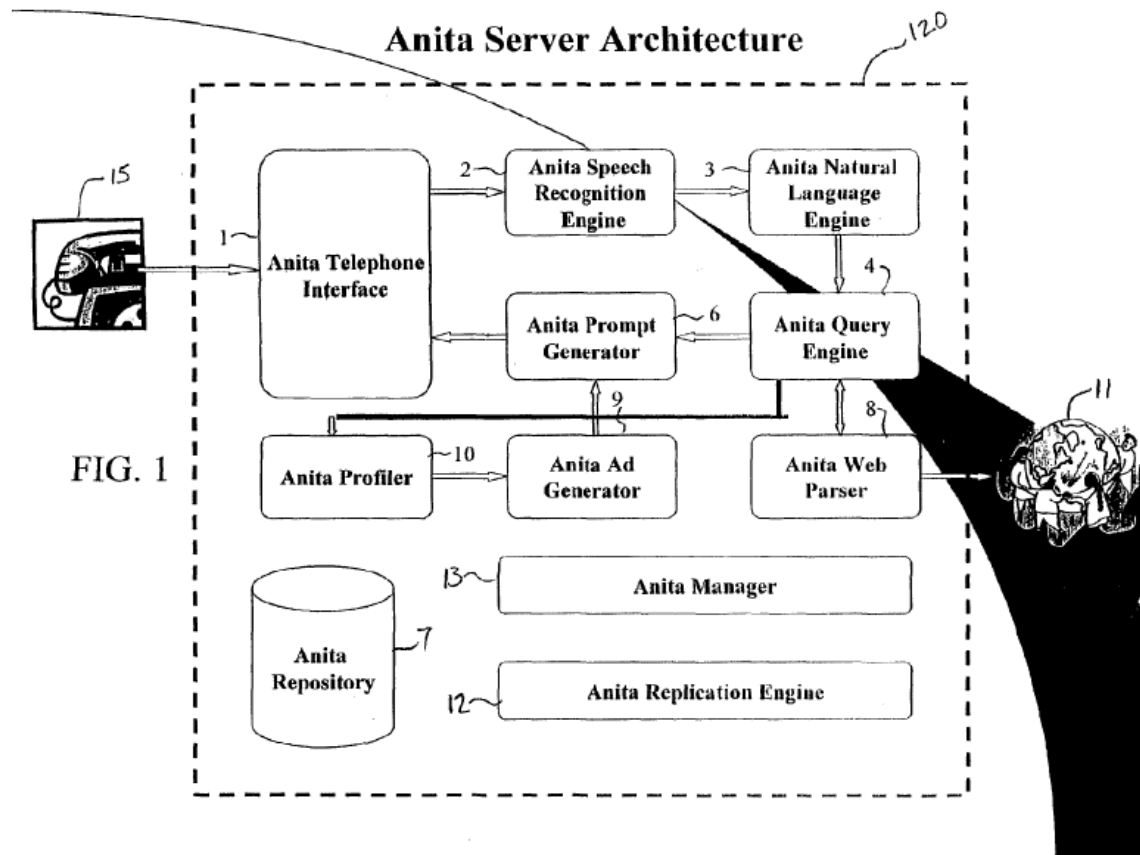


FIG. 1

Figure 1 is a schematic representation of the “Anita” server architecture. *Id.* at 6:16.

Anita server 120 is a fault-tolerant, multi-threaded NT service. *Id.* at 14:14–16. It includes Anita speech recognition engine 2 that translates spoken utterances to a set of text phrases (*id.* at 14:28–30); Anita natural language engine 3 that converts natural language sentences to a set of structured commands (*id.* at 15:1–3); Anita query engine 4 that maps commands to web queries (*id.* at 15:9–11, 17:31–32); and Anita web parser 8 that browses Internet/Web 11 to retrieve information based on the web queries (*id.* at 18:1–2).

Figure 2 is reproduced below:

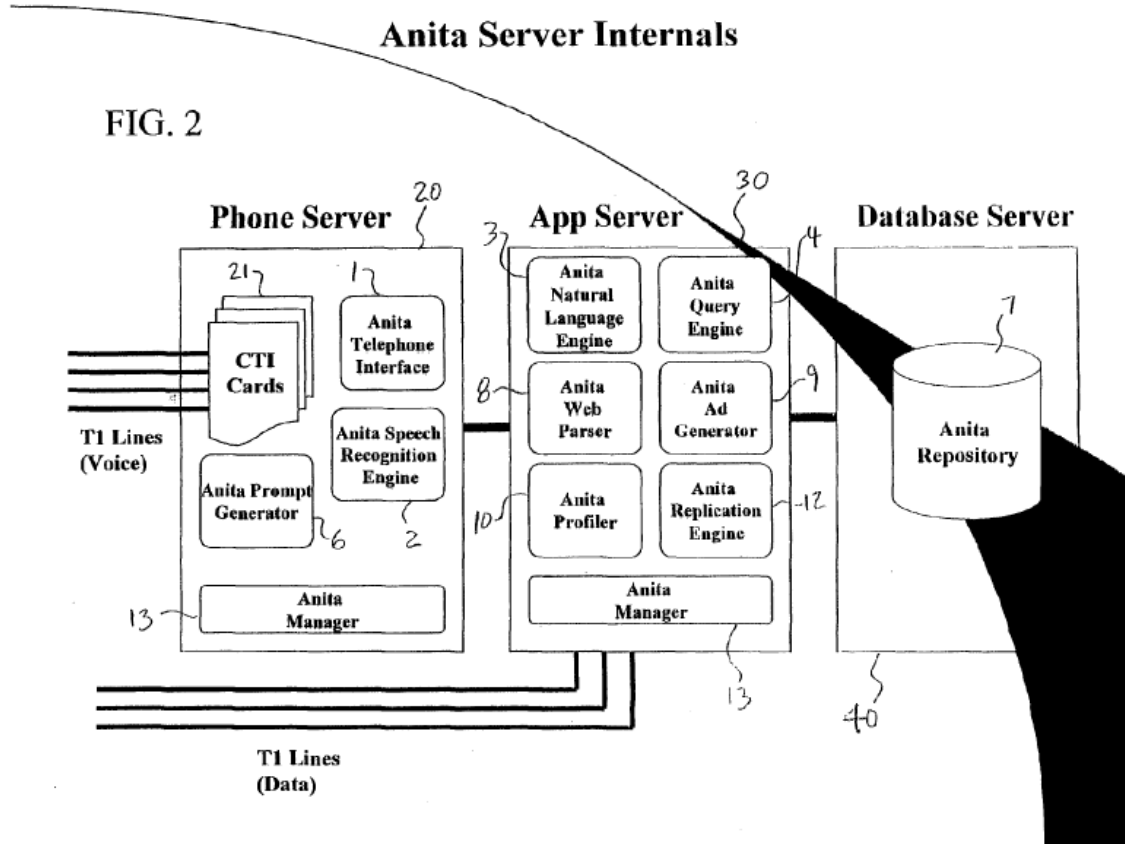


Figure 2 is a schematic representation of the logical structure of the Anita server 120. *Id.* at 6:18.

Anita server 120 consists of three logical servers: Anita phone server 20 implements a computer telephony interface using, *inter alia*, Anita telephone interface 1, Anita speech recognition engine 2, and Anita prompt generator 6 to connect digital lines to accept calls (*id.* at 18:30–32); Anita application server 30 implements applications using, *inter alia*, Anita natural language engine 3, Anita query engine 4, and Anita web parser 8 (*id.* at 19:1–3); and Anita database server 40 implements Anita repository database 7 (*id.* at 19:10).

Kovatch discloses that information is organized in a “tree” structure 140 as shown in Figure 4, reproduced below:

FIG. 4

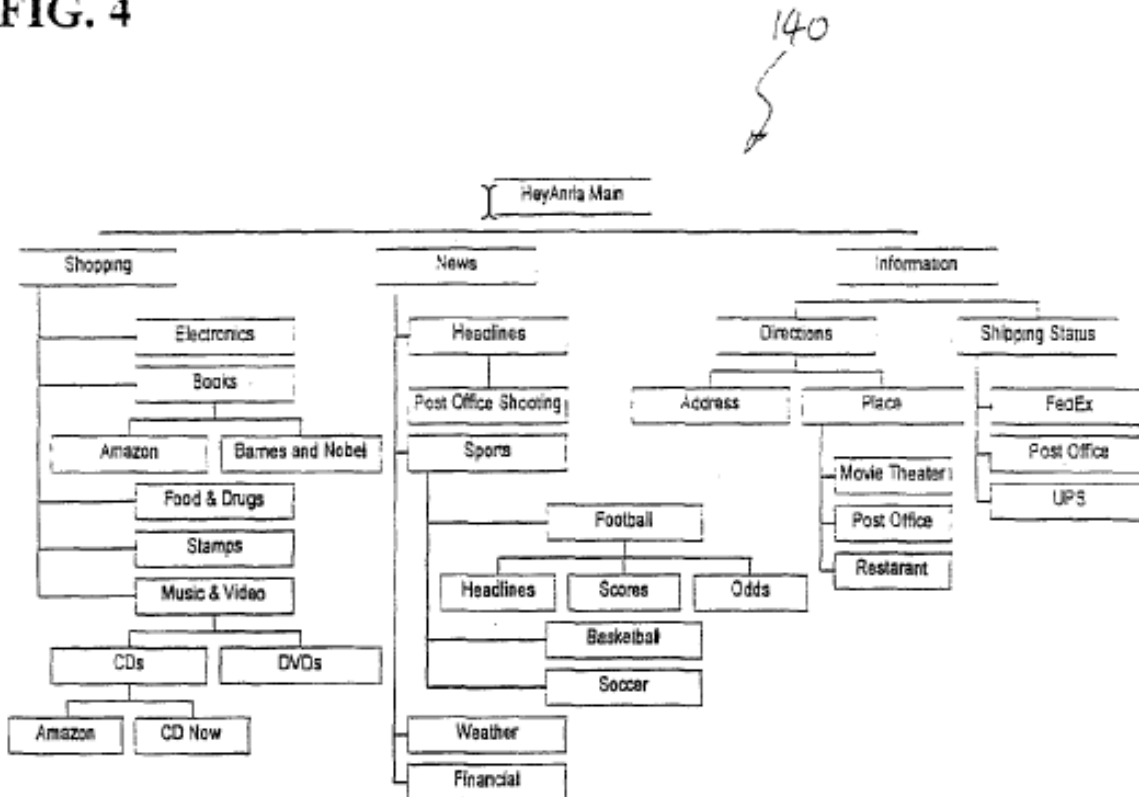


Figure 4 is a block diagram of a tree structure that exemplifies how clarification questions would be asked while narrowing down a search. *Id.* at 6:23–24, 22:27–29. Kovatch provides examples of such clarification questions for different scenarios, and explains that “[t]he way in which data is added and stored is also important [in] creating a navigable application via the Anita Prompt Generator 6.” *Id.* at 21:9–22:26.

b) Overview of Burrows

Burrows relates to “ranking records of a database which have been located by searching an index to the database, and more particularly to ranking the records for presentation based on the content of the records.”

Ex. 1006, 1:5–8. Burrows particularly describes applications in which the database records are Internet webpages and in which a search engine identifies pages of interest. *Id.* at 3:29–44, 56–61. Because of the large number of webpages that can be qualified by search queries, Burrows expresses a “desire[] to present search results in a usable manner so that users are not burdened with perusing all qualifying records.” *Id.* at 1:47–49.

Figure 2 of Burrows is reproduced below.

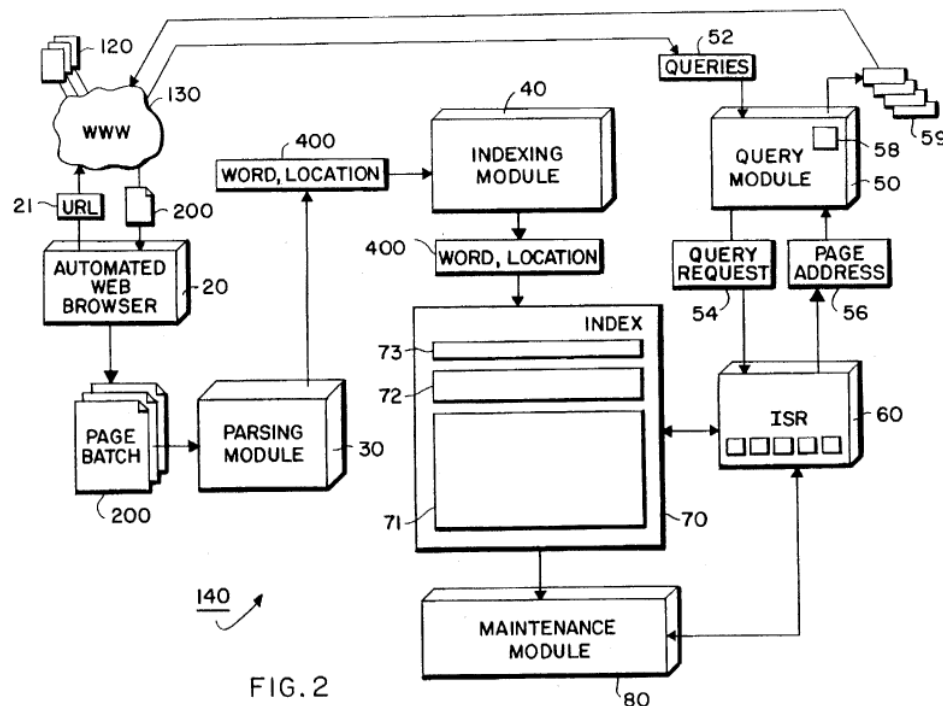


Figure 2 is a block diagram of a search engine, including an index. *Id.* at 2:27–28. Search engine 140 includes automated web browser 20, parsing module 30, indexing module 40, query module 50, index stream readers 60, index 70, and maintenance module 80. *Id.* at 4:9–13. Automatic web browser 20 periodically sends out requests 21 over network 130 so that sites 120 return records or pages 200. *Id.* at 4:16–20. Parsing module 30 breaks down portions of information of pages 200 into fundamental indexable elements or atomic pairs 400. *Id.* at 4:31–33. Indexing module 50 sorts

pairs 400 to generate index 70. *Id.* at 4:46–48. Maintenance module 80 adds and deletes information in index 70. *Id.* at 4:42–43. For example, modified pages in index 70 can be handled as a delete and add operation. *Id.* at 5:43–44.

Users interact with index 70 via query module 50 by providing queries 52. *Id.* at 5:15–16. Query module 50 analyzes queries 52 provided by users to generate query requests 54, which invoke index stream readers (ISRs) 60 to sequentially scan data structures 71–73 within index 70. *Id.* at 5:15–16, 5:25–31. Addresses 56 of pages qualified by the queries are thereby identified so that information 59 about the qualifying pages may be delivered to users by presentation module 58. *Id.* at 5:32–35.

ISRs 60 produce a list of identified pages that are qualified by queries 52. *Id.* at 27:21–22. Because the number of pages indexed by search engine 140 may be large, and “it is not unusual that this list may include references to tens of thousands of pages,” “there needs to be a way to rank order the list in a meaningful manner.” *Id.* at 27:23–29. Ranking may be performed by assigning a weight w to each indexed word, with a score W for a page being equal to the sum of the weight w for each occurrence of a word specified in the query (or does not appear if an exclusionary query was used). *Id.* at 27:35–39.

Figure 22 of Burrows is reproduced below.

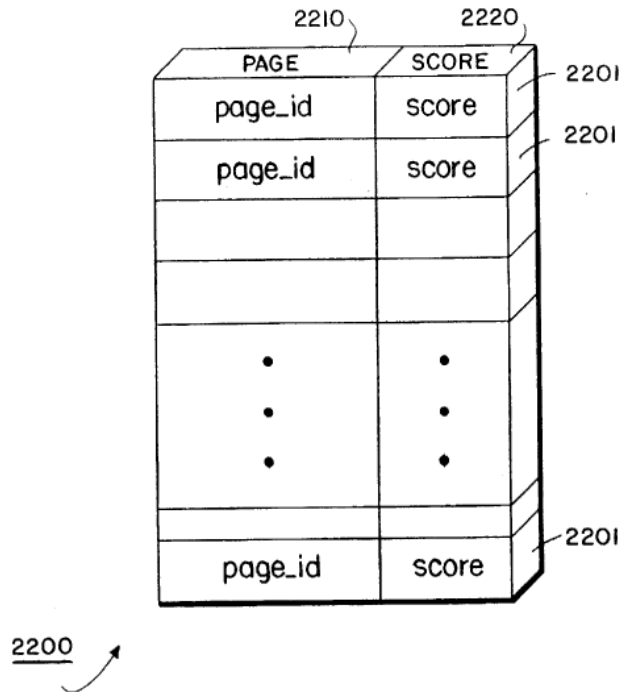


Figure 22 is a block diagram that illustrates a ranking list of qualified pages, with each entry 2201 including identification 2210 of a qualified page and score 2220 associated with that qualified page. *Id.* at 2:66, 28:19–24. Entries 2201 are maintained in rank order according to scores 2220. *Id.* at 28:23–24.

3. *Claims 1 and 2, Differences Between the Claimed Subject Matter and Kovatch and Burrows; Reasons to Modify or Combine*

Petitioner challenges independent claims 1 and 2 as unpatentable under 35 U.S.C. § 103(a) over Kovatch and Burrows. Pet. 12–32. In doing so, Petitioner relies on the HeyAnita system as disclosed by Kovatch, but concedes that Kovatch “does not explicitly disclose the ranking and polling limitations.” Pet. 12. According to Petitioner, a person of ordinary skill in the art “would have been motivated to modify HeyAnita based on Burrows, resulting in a system meeting these claim limitations.” *Id.* at 12–13 (citing

Ex. 1002 ¶¶ 113–120). Specifically, Petitioner contends that an ordinarily skilled artisan “would have found it obvious to apply Burrows’s numbered ranking and polling approach to Kovatch’s destination tree to better identify and present the records of the most interest to the user.” *Id.* at 13 (citing Ex. 1006, 3:56–58).

Petitioner and Patent Owner argue claims 1 and 2 together. Pet. 12–32; PO Resp. 42–57.

As to the preambles of claims 1 and 2, Petitioner argues that Kovatch’s HeyAnita system gathers information from websites, such as Amazon, in response to a user’s voice commands and/or free-form speech spoken into a telephone. Pet. 14–15 (citing Ex. 1004, Abstract, 13:28–14:24, 15:28–29, 22:24–32, Fig. 1; Ex. 1002 ¶¶ 124–127).

As to claim limitations 1A and 2C, Petitioner contends that Kovatch’s phone server 20 is a CPU-based media server, Anita Speech Recognition Engine 2 is a speech recognition engine, Anita Prompt Generator 6 is a speech synthesis engine, Computer Telephony Integration Cards 21 and Anita Telephone Interface 1 are telephony hardware and a call processing system, and Anita Manager 13 is an interactive voice response application. Pet. 16–19 (citing Ex. 1004, 4:25–29, 4:32–5:8, 5:16–17, 5:20–24, 9:27–29, 13:27–31, 14:18–15:7, 16:19–26, 17:11–17, 17:19–27, 18:28–32, 20:16–17, Fig. 2; Ex. 1002 ¶ 128–141).

As to claim limitations 1B and 2A, Petitioner argues that the HeyAnita system stores all data and meta-data required to drive its components, including the destination tree of Kovatch’s Figure 4, in the Anita Repository 7 database. *Id.* at 19–20 (citing Ex. 1004, 4:25–27, 16:30–32; Ex. 1002 ¶¶ 142–146).

As to claim limitations 1C and 2B, Petitioner contends that Kovatch's HeyAnita system is configured to access a first website of a plurality of websites, according to a hierarchical order, but argues that "[t]o the extent Kovatch's destination tree does not explicitly disclose a rank 'number' assigned to each website, assigning a rank number was well-known, as disclosed by Burrows." Pet. 21 (citing Ex. 1004, 16:28–34, 23:25–29, Fig. 4; Ex. 1005, 2:10–13, 3:29–33, 32:14–47; Ex. 1002 ¶49). According to Petitioner, "[t]he combination would . . . maintain a numerically ranked list to better identify and present records of the most interest, especially as Kovatch's destination tree is scaled up to add more websites per category of information." *Id.* at 22.

As to claim limitations 1D and 2D1, Petitioner contends that Kovatch's Query Engine 4 is a content fetcher and Web Parser 8 is a content extraction agent, and that these components use a content descriptor file. *Id.* at 22–25 (citing Ex. 1004, 15:9–16, 15:23–34, 17:31–18:2, 18:24–32, Fig. 2; Ex. 1002 ¶¶ 152–157). Petitioner contends that "[a]lthough not explicitly including a polling and ranking 'agent,' both were well-known, as disclosed by Burrows." *Id.* at 25. Specifically, Petitioner argues that Burrows' "robot" that "periodically sends out requests 21 over the network 130" is a "polling agent." *Id.* (quoting Ex. 1006, 4:16–20; citing *id.* at 13:43–45, 15:12–15). Petitioner further contends that Burrows' description of using a modified collection frequency weighting technique to rank order a list of pages returned by ISRs 60 teaches a "ranking agent." *Id.* at 25–26 (citing Ex. 1006, 1:47–49, 27:22–32).

As to claim limitations 1E, 2D2, and 2E, Petitioner contends that Kovatch's App Server accesses a first website of a plurality of websites to retrieve information. *Id.* at 26 (citing Ex. 1002 ¶¶ 163–165). Petitioner

argues that, “[a]lthough not explicitly disclosing that the App Server accesses ‘one of said web sites having the highest said rank number,’ this data access technique was well-known in the art, as disclosed by Burrows.” *Id.* at 26–27 (citing Ex. 1006, 27:29–32; Ex. 1002 ¶ 164).

As to claim limitations 1F and 2F, Petitioner contends that Kovatch’s Anita Prompt Generator 6 is a speech synthesis engine that generates an audio message representing website information and transmits the message to the user. *Id.* at 27–28 (citing Ex. 1004, 14:7–8, 14:18–23, 16:19–26, 18:13–15; Ex. 1002 ¶ 166).

As to claim limitations 1G and 2G, Petitioner concedes that “Kovatch does not explicitly disclose a polling mechanism,” but argues that “this feature was well-known in the art, as disclosed by Burrows.” *Id.* at 28. Specifically, as it does for the “polling agent” of claim limitations 1D and 2D1, Petitioner argues that Burrows’ “robot” that “periodically sends out requests 21 over the network 130” is a “polling agent.” *Id.* (quoting Ex. 1006, 4:16–20; citing *id.* at 13:43–45, 15:12–15). Petitioner contends that a skilled artisan “would have found it obvious to combine Burrows’s polling mechanism into Kovatch to include the most current and complete websites in Kovatch’s destination tree.” *Id.* at 28–29 (citing Ex. 1002 ¶ 169).

The parties dispute whether Kovatch and Burrows teach the remaining aspects of claims 1 and 2, namely,

[1H] said polling mechanism configured to decrease said rank number of said polled web site if no response is received from said polled web site, [1I] said polling mechanism also configured to decrease said rank number of said polled web site if an unexpected response is received from said polled web site, and [1J] said polling mechanism also configured to decrease said rank number of said polled web site if a response time of

said polled web site is longer than a second response time of a second polled web site,
as recited in claim 1 and similarly recited in claim limitations 2H–2J.^{6,7}

As to claim limitations 1H and 2H, Petitioner points to Burrows’ disclosure of browser 20 searching to determine if a previously indexed page remains active and, if there is no response, informing maintenance module 80, which can note the deletion of a page by attaching a “deleted” attribute to the page. Pet. 29 (citing Ex. 1006, 15:10–16; Ex. 1002 ¶ 170–172). According to Petitioner, “[w]hen a page has a ‘deleted status,’ the system ignores the words associated with the page during searching the index, thereby lowering its ranking.” *Id.* (quoting Ex. 1006, 15:21–23). Petitioner argues that a skilled artisan “would have understood that combining the teachings of Burrows’ polling mechanism receiving no response into Kovatch would decrease the entries’ ranking or placement in Kovatch’s destination tree in order to further limit the pages that may not be of interest to the user, while promoting others that may be of more interest.” *Id.* at 29–30 (citing Ex. 1006, 1:38–46; Ex. 1002 ¶ 172); *see also* Reply 19 (“Burrows decreases the rank of an indexed page . . . when there is no response returned by an inactive page because the page has been Deleted.” (citing Ex. 1006, 15:14–16)).

⁶ The parties dispute other aspects of claims 1 and 2; however, we find it sufficient to determine that Petitioner has not shown that Kovatch and Burrows teach claim limitations 1H–1J and 2H–2J, and need not address the parties’ remaining disputes.

⁷ Petitioner argues in the Reply that collateral estoppel should apply to these claim limitations based on panel decisions in IPR2022-00358 and IPR2022-00523. Reply 2, 18. However, Petitioner confirmed at the hearing that it not pursuing an argument of collateral estoppel based on these *inter partes* reviews as they pertain to Burrows. Tr. 19:14–20:17.

Patent Owner argues that Burrows' index does not have a sense of ranking and that, if content changes, the index merely indexes the content that is available. PO Resp. 54. We agree with Patent Owner. Burrows' indexing module generates index 70 of pages by sorting word/location pairs into word order and location order. Ex. 1006, 4:46–51. Indexed webpages are not ranked in the index. A different module, query module 50, generates query requests 54 from user queries 52, and index stream readers 60 search and identify qualified pages in index 70. *Id.* at 5:15–38, 27:21–22. Such qualified pages can be ranked, e.g.,

a ranking list 2200 of qualified pages is maintained. The ranking list 2200 includes one entry 2201 for each qualified page. Each entry 2201 includes an identification (page_id) 2210 of a qualified page, and a score (W) 2220 associated with the identified page. The entries 2201 are maintained in a rank order according to the scores 2220.

Id. at 28:18–24. According to Burrows, if browser 20 determines that a previously indexed page is gone, it informs maintenance module 80, “[d]eleted pages can be noted in the index by attaching a ‘deleted’ attribute to the page,” and “[o]nce a page has a deleted status, words associated with the page are ignored during searching.” *Id.* at 15:12–16, 15:21–22.

From this description in Burrows, it is clear that index 70 has no sense of ranking, and that Burrows' system overall has no sense of ranking prior to a query; thus, adding or deleting a webpage from the index does not change a ranking that does not yet exist. It is also clear that, if a page is flagged as deleted, it will be ignored by the query module when the query module queries the index and ranks the identified qualified pages. *Id.* at 15:12–16, 15:21–22. The webpage's rank is not decreased, as the webpage is never ranked in the first place. As Mr. Occhiogrosso testifies:

[Petitioner] conflates a “polled web site” page with a qualified web page. A “polled web site” page cannot be ranked in the Burrows system because the Burrows ranking is performed only after a user query is performed. Only at that time can the Burrows system provide a ranked list (of qualified webpages) for presentation to the user. As Burrows discloses, the Automated Web Browser is robotic in nature and not associated with the queries of users.

Ex. 2009 ¶ 181. Mr. Occhiogrosso’s testimony on this point is consistent with Burrows’ description, credible, and entitled to substantial weight.

We have considered Mr. Lipoff’s testimony that a skilled artisan “would have understood that combining Burrows’s polling mechanism receiving no response into Kovatch would decrease the entries’ ranking or placement in Kovatch’s destination tree in order to further limit the pages that may not be of interest to the user.” Ex. 1002 ¶ 172 (citing Ex. 1006, 1:38–46). That testimony, however, is conclusory and lacks persuasive reasoning. Moreover, the passage in Burrows to which it cites (Ex. 1006, 1:38–46) does not teach or suggest decreasing the ranking of webpages. Thus, Mr. Lipoff’s testimony on this point lacks credibility and is entitled to little weight. Upon consideration of the complete record, we are not persuaded that Kovatch and Burrows teach claim limitations 1H and 2H.

As to claim limitations 1I and 2I, Petitioner argues that Burrows’ maintenance module 80 admits modified pages to index 70 and, in doing so, handles a modified page as a delete and add operation. Pet. 30 (citing Ex. 1006, 5:42–44, 13:39–45). Petitioner contends that a skilled artisan “would have understood that Burrows’s modified pages are pages that return an ‘unexpected response’ when ‘the browser 20 periodically searches the Web’ to determine the indexed page’s status; the response is not as expected because its information has changed.” *Id.* (quoting Ex. 1002 ¶ 173).

According to Petitioner, a skilled artisan “would have understood that Burrows’s modified page would decrease in rank since it is ‘handled as a delete and add’ operation,” and “[a]s an added page, it would be unqualified and rank lower than previously polled pages when Burrows compiles its ranking list searching the updated index.” *Id.* at 31 (quoting Ex. 1006, 15:21–23; citing *id.* at 28:36–46; Ex. 1002 ¶ 174). Petitioner argues that a skilled artisan “would have been motivated to decrease the rank of a polled website when the page is a ‘modified page’ to further limit the pages that may not be of as much interest to the user.” *Id.* (quoting Ex. 1006, 1:38–46).

Patent Owner responds that “the Burrows index has no expectations regarding the content of a particular web page,” and “[t]he index merely indexes the content that is available on the web page and if that information changes, then the index can reflect that change.” PO Resp. 54 (citing Ex. 2009 ¶¶ 179–181).

Petitioner does not persuasively show that a change to a webpage would be an “unexpected response.” One of ordinary skill in the art would have understood that webpages on the Internet change frequently. This would have been common sense based on the dynamic nature of web pages that are updated and otherwise modified for many reasons including, but not limited to, changes to underlying information, addition of new information, or changes to the format or layout of a web page. *See* Ex. 1001, 2:24–28 (Background of the Invention, including “[i]n the rapidly changing area of Internet applications, web sites change frequently. The design of the web site may change, the information required by the web site in order to perform searches may change, and the method of reporting search results may change.”); Ex. 1002 ¶¶ 68–70; Ex. 1037, 152 (“In addition to the sheer volume of documents to be processed, indexers must take into account other

complex issues, for example, Web pages are not constructed in a fixed format; . . . and updates to the pages are made at different rates.”).

Burrows expressly provides for changes to webpages, stating that maintenance module 80 handles modified webpages as a delete and add operation. Ex. 1006, 5:43–44. Thus, Burrows treats modified webpages as expected. We have considered Mr. Lipoff’s testimony that “[b]ecause the content extraction agent software instructions are set with the expected format and content of the page, a modified page would constitute an unexpected response since the content extraction agent would also need to be adjusted in order for the system to properly function.” Ex. 1002 ¶ 173. Mr. Lipoff, however, does not identify the basis for this conclusory testimony. If Mr. Lipoff is referring to Kovatch’s State Machine and Web Parser 8 as the alleged content extraction agent (*see* Ex. 1002 ¶ 155), Kovatch does not suggest that it would need to be adjusted due to a modified web page. Ex. 1004, 15:25–16:2. Nor does Burrows suggest that its browser 20 and robot, the alleged polling mechanism, would be adjusted due to a modified web page. Ex. 1006, 4:16–20.

In the ’705 patent’s preferred embodiment, “[t]he web browsing server 102 monitors the response received from each web site and determines whether it is a complete response and whether the response is in the expected format specified by the content descriptor file 406 used by the extraction agent 400.” Ex. 1001, 16:54–59. Thus, the ’705 patent describes an unexpected response as a response in which the response is incomplete or not in the format the server expects. This is very different from the routine occurrence of a webpage’s content changing over time, the scenario Burrows expects and accounts for. Mr. Lipoff’s testimony is at odds with the preferred embodiment, inconsistent with the description in Burrows, and is

contradicted by common sense. Thus, Mr. Lipoff's testimony on this point lacks credibility and is entitled to little weight.

We also agree with Patent Owner (PO Resp. 54) that, to the extent a changed webpage is a response unexpected by browser 20 or maintenance module 80, index 70 has no concept of expectations. Thus, Petitioner has not shown that it would affect query module 50's later ranking of webpages in index 70. Mr. Lipoff cites Burrows at column 15, lines 21–23 to show that Burrows would decrease the rank of a modified page as a result of the delete and add operation. Ex. 1002 ¶ 174. Here, Burrows states that “[o]nce a page has a deleted status, words associated with the page are ignored during searching. Deleted pages can be identified by modifying the queries, described below, to check if a page has an associated □DELETED□ attribute.” Ex. 1006, 15:21–23. As explained above for claim limitations 1H and 2H, treating a page as deleted causes the webpage to be ignored during ranking, and does not cause its ranking to be decreased.

Moreover, in the case of a modified webpage, the webpage is added back into index 70. Ex. 1006, 5:43–44. As to an add operation, Mr. Lipoff testifies that “[a]s an added page, it would be unqualified and rank lower than previously polled pages when Burrows compiles its ranking list searching the updated index.” Ex. 1002 ¶ 174 (citing Ex. 1006, 28:36–46). As to this point, Burrows describes:

When the ranking list 2200 fills up, it contains 500 entries 2201. At this point, a determination can be made to see if it is possible for any of the words 2111–2116 of the first list 2210 having a relative low weight w , e.g., “an,” “in,” and “the” could possibly promote any as yet unqualified page to the “top 500” list 2200.

For example, if the score of the lowest ranked page is 809,048, and the weight of the low weight words is about 0.0000001,

then it is impossible for any of the low weight words to promote an as yet unidentified page to the “top 500” list 2200.

Ex. 1006, 28:36–46. Here, Burrows describes determining where an unqualified page ranks according to its content. It does not describe decreasing its ranking.

Dr. Lipoff further testifies that:

as applied to Kovatch, this teaching of Burrows would result in modified entries moving to lower ranked positions in Kovatch’s hierarchy. This is because the content extraction agent would no longer be able to locate the desired information on a modified page and thus the page would be [of] limited utility to the end user.

Ex. 1002 ¶ 174. In the Reply, Petitioner argues that Burrows decreases the rank of an indexed page “when the web page content has been determined to be ‘modified’ such that desired information is no longer on the website.”

Reply 19 (citing Ex. 1006, 5:42–44). However, in this scenario, Burrows’ ranking and, consequently, the ranking in the combined system, would be based on the content of the webpage, not its response as a changed webpage.

Upon consideration of the complete record, we are not persuaded that Kovatch and Burrows teach claim limitations 1I and 2I.

As to claim limitations 1J and 2J, Petitioner argues that Burrows teaches that some queries consume a substantial number of processing cycles, that the query module logs costs of processing phrases, and that the query module periodically monitors the log for phrases having a relatively high cost. Pet. 31 (citing Ex. 1006, 30:9–38). According to Mr. Lipoff,

A [person of ordinary skill in the art] would have understood that Burrows’s “cost” of processing the page refers to a number of “processing cycles,” which corresponds to “response time,” and would have recognized that long response times are less desirable than short response times (with unresponsive entries

deleted entirely). As part of “a self-optimizing search engine,” a [person of ordinary skill in the art] would have been motivated to use response times as a factor to update the index, and decrease the rank of entries with longer response times.

Ex. 1002 ¶ 176; Pet. 31–32.

Mr. Lipoff’s testimony is not consistent with Burrows’ description.

Burrows describes:

Optimization of Index in Response to Queries

Even with the efficiencies of the index structures and processes as described above, it may still be the case that some queries consume a substantial number of processing cycles. This may be a particular problem if a phrase, e.g., a concatenation of immediately adjacent words, of a slow-to-process query appears frequently. This is normal for the Web, “hot” topics get a lot of attention.

For example, a frequent and slow to process query may include the terms Netscape 1.2. Recall, the parser 30 would parse the term 1.2 as two words separated by a punctuation mark (.). Because the words “1” and “2” separately will occur relatively frequently, a large number of locations will be associated with these words. The query module 50 has feedback capabilities. This means, as an advantage, that the query module 50 itself can also generate new entries for the index 70. This feature can be implemented as follows.

The Query Journal

As shown in FIG. 23, the query module 50 maintains a journal or logging file 2300 while operating. Each entry 2301 of the log 2300 records a phrase 2310, a location 2320 of the phrase, and the cost 2330 of processing the phrase. Periodically, perhaps once a day, the log 2300 is processed. For phrases having a relatively high processing cost, e.g., the phrase “1.2”, a new metaword is dynamically placed in the index 70. The metaword is a concatenation of the words of the phrase, for example, □1.2□. The location can be the location associated with the first word of the phrase.

Ex. 1006, 30:8–38. In this description, Burrows describes the costs of including certain words as parts of queries in terms of processing performed by query module 50.

Some words naturally occur more frequently on webpages, while others are rarer. “For example, a query is stated as: find all pages including the words ‘an’ and ‘octopus.’ Finding the pages including the word ‘octopus’ will proceed quickly. However, finding the pages which include the word ‘an’ will require a substantial amount of processing because words such as ‘an’ may appear at millions of locations.” *Id.* at 27:65–28:4.

Burrows describes strategies for reducing this cost of processing queries, for example, grouping frequently occurring words (e.g., “1” and “2”) into phrases that occur less frequently in webpages (e.g., “1.2”). *Id.* at 30:33–38.

Here, Burrows describes the processing required by query module 50 to locate, in the index, pages including the words or phrases of a query. This has nothing to do with the time it takes a webpage to respond to the robot of browser 20 (the alleged polling mechanism). As Patent Owner argues, “[a]ll of [Petitioner’s] citations to Burrows relate to the cost and efficiency of performing an **index query** and are in no way related to the response time of a particular webpage.” PO Resp. 55. As Patent Owner observes, “[n]o website interaction occurs as the result of the query execution.” *Id.* at 55–60 (citing Ex. 2009 ¶¶ 183–185). Patent Owner’s understanding of Burrows is confirmed by Mr. Occhiogrosso’s testimony. Ex. 2009 ¶¶ 185–187. This testimony is consistent with Burrows’ description and, therefore, credible and entitled to substantial weight.

Mr. Lipoff testifies that a skilled artisan “would have understood that Burrows’s ‘cost’ of processing the page refers to a number of ‘processing cycles,’ which corresponds to ‘response time,’ and would have recognized

that long response times are less desirable than short response times (with unresponsive entries deleted entirely).” Ex. 1002 ¶ 176. Mr. Lipoff does not state the basis for this testimony, rendering it of little value. Moreover, he appears to believe that this functionality of Burrows is part of the alleged polling mechanism. *Id.* (“[A person of ordinary skill in the art] would have found it obvious to combine Burrows’s polling mechanism into Kovatch’s system.”). Patent Owner argues that Petitioner “seems to confuse the Burrows disclosed ‘cost 2330 of the processing of the phrase’ with [Petitioner’s] statement that ‘[a] [person of ordinary skill in the art] would have understood that Burrows’s ‘cost’ of processing the page refers to a number of ‘processing cycles,’ which corresponds to ‘response time.’” PO Resp. 56 (quoting Pet. 31–32; Ex. 1006, 30:30–34). We agree. As noted above, the functionality in Burrows that Mr. Lipoff relies on has nothing to do with Burrows’ robot of browser 20. In contrast, the ’705 patent clearly describes “response time” as the time it takes for a website to respond to a polling mechanism pinging the website:

The polled web sites that provide complete responses in the format expected by the extraction agent 400 have their ranking established based on their “response time”. That is, web sites with faster response times will be will be assigned higher rankings than those with slower response times[.] If the web browsing server 102 receives no response from the polled web site or if the response received is not in the expected format, then the rank of that web site is lowered.

Ex. 1001, 16:69–66.

As to Mr. Lipoff’s testimony, that a skilled artisan “would have been motivated to use response times as a factor to update the index and decrease the rank of entries with longer response times,” Ex. 1002 ¶ 176, Petitioner and Mr. Lipoff point to no evidence that query cost has any impact on the

ranking Burrows' query module 50 assigns to webpages. Nor does Burrows describe its index optimization as affecting rankings in queries; rather, it makes the query process overall more efficient. Ex. 1006, 30:8–52. Thus, Mr. Lipoff's testimony is, once again, inconsistent with the preferred embodiment and contradicted by Burrows and, accordingly, incredible and entitled to little weight.

In the Reply, Petitioner argues that “the type of database record that Burrows polls and ranks makes no difference for this teaching; processing costs and cycles, equating to processing time, are a potential issue any time computer processing occurs.” Reply 20 (citing Ex. 1061 ¶ 24). Mr. Lipoff repeats this statement in his testimony without identifying the basis for it, rendering that testimony of little value. Ex. 1061 ¶ 24. In any case, it appears that Petitioner and Mr. Lippoff are arguing that a general notion of processing cost any time computer processing occurs would lead a skilled artisan to decrease a webpage's rank based on response time. This is a new argument, not presented in the Petition, and is therefore forfeited and will not be considered. In any case, Petitioner has not supported this new argument with persuasive evidence.

Upon consideration of the complete record, we are not persuaded that Kovatch and Burrows teach claim limitations 1J and 2J.

Moreover, Burrows' maintenance module 80 adds and deletes information into index 70 and query module 50 ranks the results of queries. Ex. 1006, 5:42–44, 13:39–45, 15:14–16, 27:21–32. Petitioner, in contrast, contends that the “robot” of browser 20 is the feature of Burrows that corresponds to the claimed “polling mechanism” of claim limitations 1H–1J and 2H–2J. Pet. 28 (citing Ex. 1006, 4:16–20, 13:43–45, 15:12–15). The robot of browser 20, however, does not perform the index modifications or

rankings that Petitioner contends corresponds to these claim limitations. Maintenance module 80 and query module 50 perform those functions. Thus, even if a skilled artisan were to “combine Burrows’s polling mechanism into Kovatch to include the most current and complete websites in Kovatch’s destination tree,” Burrows’ robot and browser, and the resulting combination of these features with the system of Kovatch, would not perform the functions Petitioner attributes to claim limitations 1H–1J and 2H–2J. Pet. 28–29 (citing Ex. 1002 ¶ 169). For this additional reason, Petitioner has not shown that Kovatch and Burrows teach claim limitations 1H–1J and 2H–2J.

In sum, for several reasons, Petitioner has not shown that Kovatch and Burrows teach claim limitations 1H–1J and 2H–2J and, therefore, Petitioner has not shown that Kovatch and Burrows teach each limitation of claims 1 and 2.

4. Conclusion of Nonobviousness

As explained above, Petitioner has failed to show that the combination of Kovatch and Burrows teaches each limitation of claims 1 and 2. Upon consideration of all the evidence, we conclude that Petitioner has not proved by a preponderance of the evidence that claims 1 and 2 would have been obvious over Kovatch and Burrows.

C. Obviousness of Claims 1 and 2 over Wise and Burrows

Petitioner contends that claims 1 and 2 would have been obvious over Wise and Burrows. Pet. 32–52. For the reasons given below, Petitioner has not made a sufficient showing.

1. *Scope and Content of the Prior Art—Overview of Wise*

Wise “relates to accessing information from a computer network via a telephone . . . or other audio device.” Ex. 1007, 1:6–9. Figure 2 of Wise is reproduced below.

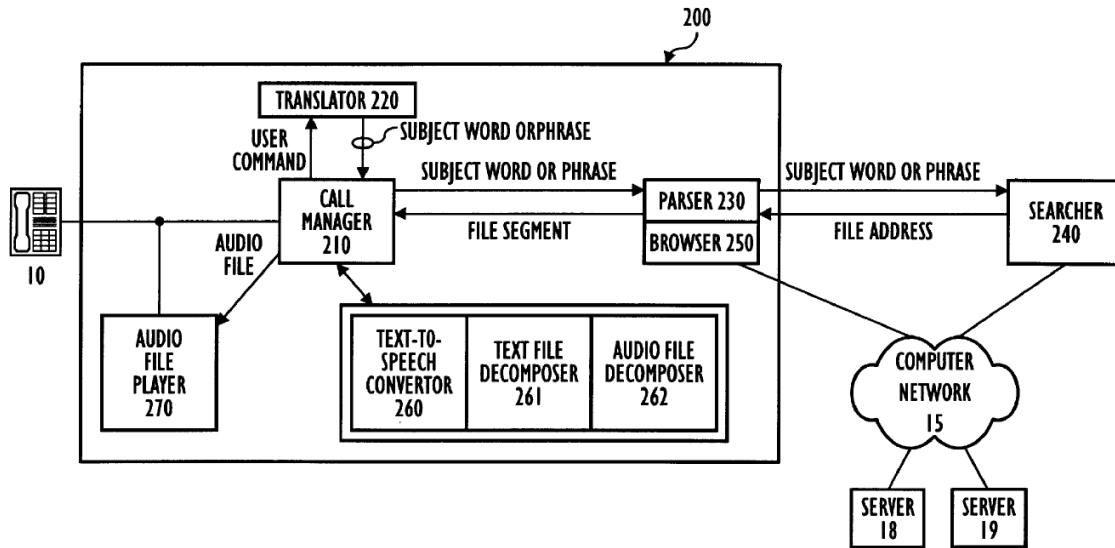


FIG. 2

Figure 2 is a block diagram of a system architecture. *Id.* at 3:40–41, 3:51–52. Telephone 10 is connected via a telephone line to system 200, which is connected through computer network 15 to various servers 18, 19. *Id.* at 3:55–58, 5:38–45. Network 15 may be the Internet, and servers 18, 19 may be web servers. *Id.* at 3:55–58. User voice commands from telephone 10 may be captured by Call Manager 210 and translated by a speech-to-text engine embodied by translator 220. *Id.* at 6:14–30. “Generally, the system will attempt to interpret the user command and then attempt to navigate based on the command.” *Id.* at 6:31–33.

A subject word or phrase derived from the user command is passed to Call Manager 210, which routes the information to Parser 230, which may send the subject word or phrase to Searcher 240 to find addresses of files on

target computer network 15. *Id.* at 6:33–46. Parser 230 passes an address to Browser 250, which establishes a connection to appropriate server 18 through network 15 so that Browser 250 may download a requested file to be returned to Parser 230. *Id.* at 7:7–13. Parser 230 dynamically analyzes the structure and contents of the downloaded file, and passes the structure type and associated text or audio content to Call Manager 210, which routes it for creation of an audio file to be played by audio file player 270. *Id.* at 7:13–37.

Wise describes how “a network search engine may be provided to investigate documents located on a relatively unconstrained network such as the World Wide Web in order to locate documents which are highly compatible with audio presentation of even documents which are specifically labeled to be compatible.” *Id.* at 9:56–61. To do so, the search engine may be a “worm type searcher or other robotic search engine,” allowing the document search to be automated “along with the process of indexing such documents.” *Id.* at 9:61–66. Parser 230 and Call Manager 210 may interrogate found documents to determine whether they reach a threshold level of audio compatibility. *Id.* at 10:2–6. Compatible documents may be indexed, with the index “stored as one or more documents preferably in a hierarchical order.” *Id.* at 10:7–9. “The user may use the navigation commands to traverse the index and invoke a link to a source document.” *Id.* at 10:9–10.

2. *Claims 1 and 2, Differences Between the Claimed Subject Matter and Wise and Burrows; Reasons to Modify or Combine*

Petitioner challenges independent claims 1 and 2 as unpatentable under 35 U.S.C. § 103(a) over Wise and Burrows. Pet. 34–52. According to

Petitioner, “Wise’s voice response system accesses websites to retrieve user requested information, but does not explicitly disclose the ranking and polling limitations of independent Claims 1–2.” *Id.* at 34. Petitioner nevertheless contends that a person of ordinary skill in the art “would have been motivated to modify Wise’s system based on Burrows, resulting in a system meeting these claims limitations.” *Id.* (citing Ex. 1002 ¶¶ 177–178). Specifically, Petitioner contends that a person of ordinary skill “would have found it obvious to apply Burrows’s teachings of assigning ranks numerically, ‘rank order where the pages having a higher rank are presented first,’ and ‘periodically send[ing] out requests’ to inform ‘maintenance module 80’ of Wise’s index in order to better identify and present the records of the most interest to the user.” *Id.* (quoting Ex. 1006, 1:39–46).

Petitioner and Patent Owner argue claims 1 and 2 together. Pet. 35–52; PO Resp. 57–61.

Petitioner argues that Wise’s voice response system, including voice recognition, is an Internet voice browsing system for using voice commands to browse and gather information from websites and, thus, teaches the preambles of claims 1 and 2. Pet. 35 (citing Ex. 1007, 1:66–2:2, 2:50–58, 3:52–61, 5:29–33, 6:31–33, 6:46–49; Ex. 1002 ¶ 179).

As to claim limitations 1A and 2C, Petitioner contends that Wise’s Speech-to-Text Convertor 360 is a speech recognition engine; Text-to-Speech Convertor 361 is a speech synthesis engine; and Lines and DTMF Detection 362 are telephony hardware and a call processing system. *Id.* at 36–40 (citing Ex. 1007, 2:2–23, 2:28–34, 2:53–58, 3:66–4:7, 4:8–16, 5:33–37, 5:43–47, 6:14–30, 8:33–36, 8:66–67, 9:2–12, Figs 1, 3; 1002 ¶¶ 180–189).

As to claim limitations 1B and 2A, Petitioner points to Wise’s description of indexing compatible documents and storing the index in a database. *Id.* at 41 (citing Ex. 1007, 7:28–31, 8:65–9:12, 9:61–65, 10:7–10; Ex. 1002 ¶¶ 190–191)

As to claim limitations 1C and 2B, Petitioner contends that Wise’s description of storing an index as one or more documents in hierarchical order teaches assigning a rank number to each website in the database. *Id.* at 41–42 (citing Ex. 1007, 10:7–10; Ex. 1002 ¶ 192); Reply 22. According to Wise, “[c]ompatible documents may be indexed. The index may be stored as one or more documents preferably in a hierarchical order. The user may use the navigation commands to traverse the index and invoke a link to a source document.” Ex. 1007, 10:7–10. As we observed in our Decision Denying Institution, however, Wise does not teach that source documents found by a search engine are “stored in hierarchical order”; rather, Wise states that the documents that make up the *index* are stored “in hierarchical order,” and Wise’s explanation that a user may use “navigation commands to traverse the index and *invoke a link* to the source document” suggests that the source documents are *not* “stored in hierarchical order,” contrary to what Petitioner and Mr. Lipoff assert. Paper 7, 28 (citing Ex. 1007, 10:7–10).

As an alternative, Petitioner contends that Burrows teaches assigning rank numbers to websites and storing them in a database. Pet. 42 (citing Ex. 1006, 3:29–33, 32:14–47). Petitioner argues that a skilled artisan “would have found it obvious to include Burrows’s rank numbering in Wise’s hierarchical order for the reasons described” in its contentions for the Kovatch/Burrows combination for claim limitations 1C and 2B. *Id.* (citing Ex. 1002 ¶¶ 192–193). In our Decision Denying Institution, we observed that, because Burrows’ ranking operation is performed on results after

execution of a query, ranking cannot be applied to Wise's index because the index merely documents the content of websites and, because it has no sense of a future query that might be executed, cannot hold rank information.

Paper 7, 29. We also found that Mr. Lipoff's testimony on this point was "no more edifying" as it "simply repeats the same conclusion without providing a sufficient explanation." *Id.* (citing Ex. 1002 ¶ 192). Patent Owner asserts that we should maintain this finding for the same reasons. PO Resp. 58–59; Sur-reply 23–24. We agree that those preliminary findings are supported by the complete record.

In the Reply, Petitioner argues that "Burrows teaches ranking 'scores,' which would simply be numbers assigned to the already ordered list in Wise, ranking the 'hierarchically ordered' index with specific numbered scores." Reply 22. Petitioner supports this argument with new testimony from Mr. Lipoff that does no more than repeat Petitioner's conclusory argument. Ex. 1061 ¶¶ 27–28. It is also contradicted by Wise, which states that the index, not the ordered list of documents, is in hierarchical order. Ex. 1007, 10:7–10. Thus, this testimony is entitled to little weight.

Upon consideration of the complete record, we are not persuaded that Wise and Burrows teach claim limitations 1C and 2B.

As to claim limitations 1D and 2D1, Petitioner argues that Wise's Searcher 240, Browser 250, Searcher Software 123, and Browser Software 122 constitute a content fetcher; and Parser 230 is a content extraction agent. Pet. 42–46 (citing Ex. 1007, 2:28–34, 2:61–3:8, 5:29–33, 6:1–5, 6:43–51, 6:58–65, 7:7–13, 8:33–36, 10:7–19, Fig. 3; Ex. 1002 ¶¶ 194–199). Petitioner further contends that Wise's "parser, together with a call manager" constitute a ranking agent. *Id.* at 47 (citing Ex. 1007, 10:2–4, 10:7–10). Petitioner further contends that Wise's "network search engine" is

a polling agent. *Id.* (citing Ex. 1007, 9:56–65, 9:67–10:2). Petitioner also argues that Burrows teaches ranking and polling agents, for the reasons given for claim limitations 1D and 2D1 in its allegations for the Kovatch/Burrows combination. *Id.* at 47–48 (citing Ex. 1006, 4:16–20, 13:43–45, 15:12–15, 27:22–32).

As to claim limitations 1E, 2D2, and 2E, Petitioner concedes that “Wise does not explicitly disclose its web browsing server/system accesses ‘one of said web sites having the highest said rank number,’” but argues that this is taught by Burrows, for the reasons given in its allegations for the Kovatch/Burrows combination. *Id.* at 48 (citing Ex. 1006, 27:29–32).

As to claim limitations 1F and 2F, Petitioner contends that Wise’s Parser 230 interprets the contents of a document, uses a text-to-speech engine to read the text, and passes a structure type and associated text or audio contents to Call Manager 210, which routes it to an appropriate board to create an audio file to be played by audio file player 270. *Id.* at 49 (citing Ex. 1007, 2:11–17, 2:28–34, 5:66–7:5, 7:34–55; Ex. 1002 ¶ 207).

As to claim limitations 1G and 2G, Petitioner concedes that “Wise does not explicitly disclose a polling mechanism,” but argues that Burrows teaches a polling mechanism that a skilled artisan would have included in Wise’s system for the reasons it gives in its allegations for the Kovatch/Burrows combination. *Id.* at 50 (citing Ex. 1006, 3:50–4:5, 4:16–20, 13:43–45, 15:12–15; Ex. 1002 ¶¶ 208–209).

As to claim limitations 1H, 2H, 1I, 2I, 1J, and 2J, Petitioner and Patent Owner largely incorporate by reference their arguments and evidence presented for these claim limitations in their allegations for the Kovatch/Burrows combination. Pet. 50–52; PO Resp. 60–61; Reply 23; Sur-reply 25. Petitioner’s arguments and evidence for these limitations are

unpersuasive for the reasons given above. Specifically, Petitioner contends that Burrows teaches claim limitations 1H and 2H for the reasons given for the Kovatch/Burrows combination. Pet. 50 (citing Ex. 1006, 2:14–20, 4:16–20, 5:42–44, 13:43–45, 15:12–23, 27:29–32). Petitioner argues that a skilled artisan “would have found it obvious to include Burrows’s polling mechanism that decreases the rank of a polled website if no response is received in Wise’s index.” *Id.* at 50–51 (citing Ex. 1006, 1:47–49, 3:56–4:5; Ex. 1002 ¶¶ 210–211). Mr. Lipoff’s testimony merely repeats the argument in the Petition without adding anything material. Ex. 1002 ¶¶ 210–211. For the same reasons given above for the Kovatch/Burrows combination, Burrows does not teach a polling mechanism decreasing a rank number of a polled website if no response is received from the website. Upon consideration of the complete record, we are not persuaded that Wise and Burrows teach claim limitations 1H and 2H.

Petitioner also contends that Burrows teaches claim limitations 1I and 2I for the reasons given for the Kovatch/Burrows combination. Pet. 51 (citing Ex. 1006, 2:14–20, 4:16–20, 5:44–49, 13:43–45, 15:12–15, 27:29–32, 30:56–67, 31:24–36). Petitioner contends that a skilled artisan “would have found it obvious to include Burrows’s polling mechanism that decreases the rank of a polled website after an unexpected response into Wise’s index since it ‘may periodically be necessary to admit modified . . . entries’ to the index.” *Id.* (quoting Ex. 1006, 13:39–45; citing Ex. 1002 ¶¶ 212–213). Mr. Lipoff’s testimony merely repeats the argument in the Petition without adding anything material. Ex. 1002 ¶¶ 212–213. For the same reasons given above for the Kovatch/Burrows combination, Burrows does not teach a polling mechanism decreasing a rank number of a polled website if an unexpected response is received from the website. Upon

consideration of the complete record, we are not persuaded that Wise and Burrows teach claim limitations 1I and 2I.

Petitioner also contends that Burrows teaches claim limitations 1J and 2J for the reasons given for the Kovatch/Burrows combination. Pet. 51 (citing Ex. 1006, 1:38–46, 2:14–20, 4:16–20, 13:43–45, 15:12–15, 27:29–32, 30:10–38). Petitioner contends that a skilled artisan “would have found it obvious to include Burrows’s polling mechanism that decreases the rank of a polled web site in view of its response time in Wise’s system because long response times are less desirable than short response times.” *Id.* at 51–52 (citing Ex. 1002 ¶¶ 214–215). Mr. Lipoff’s testimony merely repeats the argument in the Petition without adding anything material. Ex. 1002 ¶¶ 214–215. For the same reasons given above for the Kovatch/Burrows combination, Burrows does not teach a polling mechanism decreasing a rank number of a polled website if a response time of the polled website is longer than a second response time of a second polled website. Upon consideration of the complete record, we are not persuaded that Wise and Burrows teach claim limitations 1J and 2J.

In sum, for several reasons, Petitioner has not shown that Wise and Burrows teach claim limitations 1C, 2B, 1H–1J, and 2H–2J and, therefore, Petitioner has not shown that Wise and Burrows teach each limitation of claims 1 and 2.

3. *Conclusion of Nonobviousness*

As explained above, Petitioner has failed to show that the combination of Wise and Burrows teaches each limitation of claims 1 and 2. Upon consideration of all the evidence, we conclude that Petitioner has not proved

by a preponderance of the evidence that claims 1 and 2 would have been obvious over Wise and Burrows.

III. CONCLUSION

Petitioner has not proved by a preponderance of the evidence that claims 1 and 2 would have been obvious.

In summary:⁸

Claims	35 U.S.C. §	Reference(s)/ Basis	Claims Shown Unpatentable	Claims Not shown Unpatentable
1, 2	103(a)	Kovatch, Burrows		1, 2
1, 2	103(a)	Wise, Burrows		1, 2
Overall Outcome				1, 2

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED, based on a preponderance of the evidence, that claims 1 and 2 are not unpatentable;

FURTHER ORDERED, because this is a final written decision, the parties to this proceeding seeking judicial review of our Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

⁸ As noted above, we have partially terminated the proceeding as to claims 3 and 4 without rendering a decision as to those claims. Thus, we do not reach the challenges to those claims based on Buchner and Launey.

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