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Paper 7
Date: December 13, 2022

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC,
Petitioner,

v.

PARUS HOLDINGS, INC.,
Patent Owner.

IPR2022-01020
Patent 7,516,190 B2

Before DAVID C. MCKONE, PATRICK M. BOUCHER, and JAMES J. MAYBERRY, *Administrative Patent Judges.*

MAYBERRY, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. Background and Summary

Google LLC ("Petitioner") filed a Petition ("Pet.") requesting *inter partes* review of claims 1–21 (the "Challenged Claims") of U.S. Patent No. 7,516,190 B2 (Ex. 1001, the "'190 patent"). Paper 2 ("Pet."). Parus Holdings, Inc. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 6 ("Prelim. Resp.").

We have authority to determine whether to institute an *inter partes* review. 35 U.S.C. § 314 (2018); 37 C.F.R. § 42.4(a) (2021) (permitting the Board to institute trial on behalf of the Director). To institute an *inter partes* review, we must determine that the information presented in the Petition shows "a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." 35 U.S.C. § 314(a). For the reasons set forth below, upon considering the present record, we do not institute an *inter partes* review.

B. Real Parties-in-Interest

Petitioner identifies itself as the real party-in-interest. Pet. 1. Patent Owner identifies itself as the real party-in-interest. Paper 3, 2.

C. Related Matters

Petitioner identifies, as matters that "could affect or be affected by" a decision in the '190 patent, ongoing litigation in the U.S. District Court for the Western District of Texas, in cases styled: (i) *Parus Holdings Inc. v. Samsung Electronics America, Inc. et al.*, Civil Action No. 6:21-cv-01073; (ii) *Parus Holdings Inc. v. Apple Inc.*, Civil Action No. 6:21-cv-00968; (iii) *Parus Holdings Inc. v. Microsoft Corp.*, Civil Action No. 6:21-cv-00570; (iv) *Parus Holdings Inc. v. Google LLC f/k/a Google Inc.*, Civil Action No. 6:21-cv-00571. Pet. 1. In addition, the parties identify the

following ongoing USPTO proceedings: IPR2020-00686 (*Apple Inc. v. Parus Holdings, Inc.*) against U.S. Patent No. 7,076,431 (no challenged claims found unpatentable) (currently on appeal to the Court of Appeals for the Federal Circuit, Case No. 22-1143); IPR2020-00687 (*Apple Inc. v. Parus Holdings, Inc.*) against U.S. Patent No. 9,451,084 (no challenged claims found unpatentable) (currently on appeal to the Court of Appeals for the Federal Circuit, Case No. 22-1144); IPR2020-00846 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent No. 7,076,431 (all challenged claims found unpatentable) (currently on appeal to the Court of Appeals for the Federal Circuit, Case No. 22-1270); IPR2020-00847 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent No. 9,451,084 (all challenged claims found unpatentable) (currently on appeal to the Court of Appeals for the Federal Circuit, Case No. 22-1270); IPR2020-00137 (*Microsoft Corp. v. Parus Holdings, Inc.*) against U.S. Patent 6,721,705; IPR2022-00279 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent 6,721,705; IPR2022-00355 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent 7,386,455; IPR2022-00358 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent 7,881,941; IPR2022-00523 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent 8,185,402; IPR2022-00805 (*Google LLC v. Parus Holdings, Inc.*) against U.S. Patent 9,769,314; IPR2022-00948 (*Apple Inc. v. Parus Holdings, Inc.*) against U.S. Patent 9,769,314; IPR2022-00949 (*Apple Inc. v. Parus Holdings, Inc.*) against US Patent 8,185,402; and IPR2022-00950 (*Apple Inc. v. Parus Holdings, Inc.*) against U.S. Patent 6,271,705. Pet. 2–4; Prelim. Resp. 2–4.

D. The '190 Patent

The '190 patent, titled "Personal Voice-Based Information Retrieval System," issued April 7, 2009, from an application filed February 6, 2001,

and ultimately claims priority to a provisional application filed February 4, 2000. Ex. 1001, codes (54), (45), (22). The '190 patent relates to "a personalized system for accessing information from the Internet or other information sources using speech commands." *Id.* at 1:15–17. In the system, a user creates a user-defined record containing information of interest to the user, and the user-defined record identifies the location of the information source and also contains a recognition grammar assigned by the user. *Id.* at 1:64–2:2. When the user issues a speech command, described in the assigned recognition grammar, a network interface system accesses the information source and retrieves the information requested by the user. *Id.* at 2:2–2:5.

We reproduce Figure 1 from the '190 patent below.

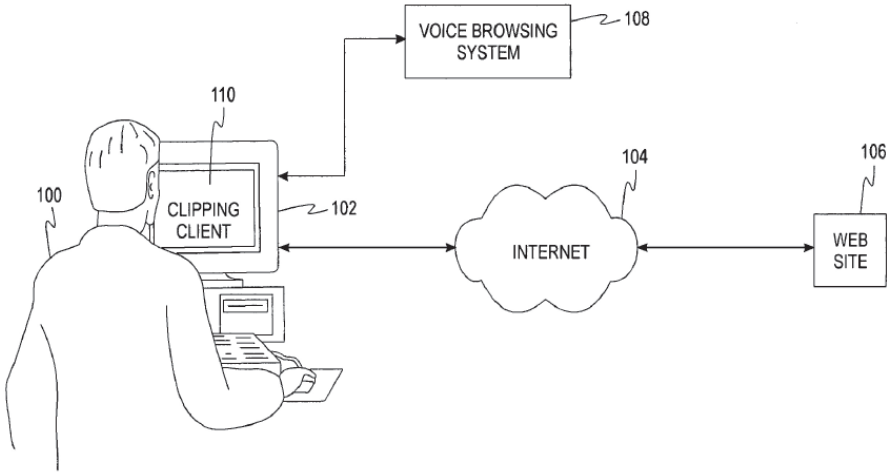


FIG. 1

Figure 1 depicts a personal information selection system. Ex. 1001, 2:29. User 100 uses computer 102 to access a network or Internet 104 to search for web sites 106, which are information sources that may contain information of interest to the user. *Id.* at 2:60–65. When the user identifies a web site containing information the user would like to access using voice commands, the user activates "clipping client" engine 110 on computer 102.

Id. at 2:65–3:2. Clipping client 110 allows user 100 to create a set of instructions used by voice browsing system 108 to report personalized information back to the user by "clipping" information from the identified web site. *Id.* at 3:3–7.

We reproduce Figure 2 from the '190 patent below.

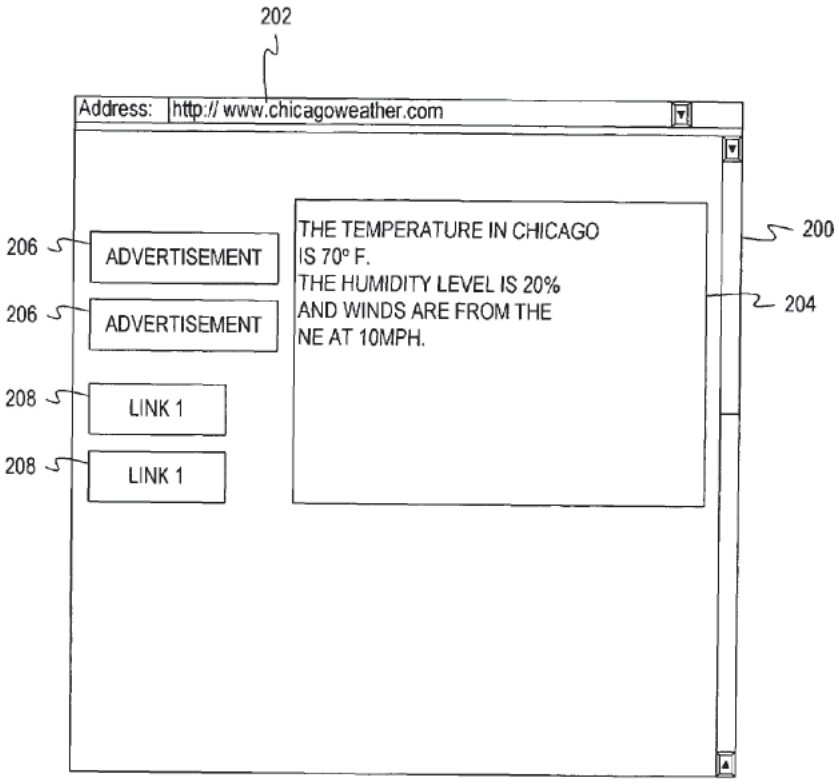


FIG. 2

Figure 2 depicts "a web page displayed by the clipping client." Ex. 1001, 2:31. User 100 creates the instruction set for retrieving information from the identified web site by selecting uniform resource locator (URL) address 202 for the web site by, for example, highlighting and copying URL address 202. *Id.* at 3:15–20. Next, the user selects the

information of interest from the displayed web page that he or she would like to have retrieved when a request is made, which in Figure 2 is information 204 regarding the weather conditions in Chicago. *Id.* at 3:21–24. "Based on web page information 204 selected by the user, clipping client 110 creates a content descriptor file containing a description of the content of the selected web page" that "indicates where the information selected by the user is located on the web page." *Id.* at 3:32–36. Clipping client 110 prompts the user to enter an identification word or phrase, such as "Chicago weather" that will be associated with the identified web site, i.e., selected URL 202 and weather information 204. *Id.* at 4:40–44. The identification word or phrase is stored as a personal recognition grammar that is recognized by a speech recognition engine of voice browsing system 108.

We depict Figure 3A of the '190 patent below.

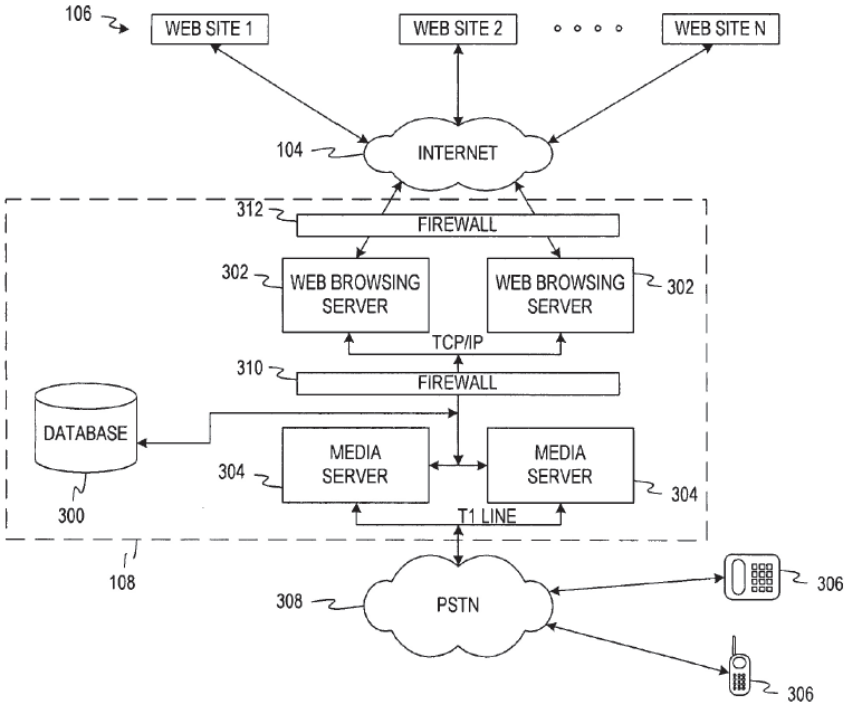


FIG. 3

Figure 3 is a block diagram of a voice browsing system. Ex. 1001, 2:33. Voice browsing system 108 includes database 300 that is connected to one or more web browsing servers 302 and one or more media servers 304, which "function as user interface systems that provide access to the voice browsing system 108 from a user's voice enabled device 306 (i.e., any type of wireline or wireless telephone, Internet Protocol (IP) phones, or other special wireless units)." *Id.* at 4:52–63; *see also id.* at 12:38–43. Database 300 contains a section that stores the personal recognition grammars and related web site information generated by clipping client 110, as a separate record for each web site. *Id.* at 4:64–67. Each user-defined web site record 400 contains recognition grammar assigned by the user, the associated Uniform Resource Locator (URL), and a command that enables the "content extraction agent" and retrieves the appropriate content descriptor file required to generate proper requests to the web site and to properly format received data. *Id.* at 5:1–7. Media servers 304 contain a speech recognition engine as well as telephony and voice hardware that is required to enable voice browsing system 108 to communicate with Public Switched Telephone Network (PSTN) 308. *Id.* at 5:21–27. The speech recognition engine converts voice commands received from the user's voice enabled device 306 into data messages. *Id.* at 5:30–34.

Thereafter, when a user accesses voice browsing system 108, the user will be prompted to determine whether they would like to use the "user-defined searches." *Id.* at 5:51–53. If "yes," media servers 304 will retrieve from database 300 personal recognition grammars 402 that were defined by the user while using clipping client 110. *Id.* at 5:53–56; *see also id.* at 12:50–61. Media servers 304 contain speech synthesis engine 502 that converts the data retrieved by web browsing servers 302 into audio messages

that are transmitted to the user's voice enabled device 306. *Id.* at 15:57–60. Web browsing servers 302 provide access to data stored on any computer network including Internet 104, WANs or LANs." *Id.* at 5:65–67. The '190 patent explains that web browsing servers 302 receive responses from web sites 106 and extract the data requested by the user in a process known as "content extraction." *Id.* at 5:67–6:3. In particular, upon receipt of user-defined web site record 400 from database 300 in response to a user request, web browsing server 302 invokes the "content extraction agent" command contained in record 400. *Id.* at 6:7–10; *see also id.* at 13:15–20. "The content extraction agent 600 retrieves the content descriptor file 604 associated with the user-defined record 400 [], . . . the content descriptor file 604 directs the extraction agent where to extract data from the accessed web page and how to format a response to the user utilizing that data." *Id.* at 6:10–15. "Once the web browsing server 302 accesses the web site specified in the URL 404 and retrieves the requested information, it is forwarded to the media server 304." *Id.* at 12:29–31; *see also id.* at 13:23–26. "The media server uses the speech synthesis engine 502 to create an audio message that is then transmitted to the user's voice enabled device 306." *Id.* at 12:31–34.

E. Challenged Claims

The Petition challenges claims 1–21. Pet. 1. Claims 1, 6, and 16 are independent. Claim 1 is representative and is reproduced below.

> 1. A method for allowing users to use speech commands to obtain information from a pre-defined portion of a pre-selected web site in audio format, said method comprising the steps of:
>
> (a) providing a computer having a speech processor, said computer being operatively connected to the internet and to at least one phone;

(b) providing a URL to said computer, said URL indicating a pre-selected web site from which the information is to be retrieved;

(c) using said computer to designate a pre-defined portion of the pre-selected web site which contains the information to be retrieved;

(d) using said computer to identify a named object associated with the content of the information to be retrieved;

(e) using said computer to generate a regular expression based on said pre-defined portion of said pre-selected web site and said named object, said regular expression corresponding to said content of said information to be retrieved, wherein said regular expression is a text string used for describing a search pattern;

(f) providing a speech command to said speech processor, said speech command corresponding to said regular expression;

(g) said speech processor converting said speech command to a digital-form command;

(h) said computer receiving said digital-form command from said speech processor, said computer assigning said regular expression to said digital-form command;

(i) after steps (a) through (h) are completed, transmitting an audio speech command to said speech processor, said speech command corresponding to said regular expression;

(j) said speech processor converting said speech command to said digital-form command;

(k) said computer receiving said digital-form command from said speech processor;

(l) said computer retrieving said regular expression corresponding to said digital-form command;

(m) said computer retrieving the information from the predefined portion of the pre-selected web site corresponding to said regular expression when the requested information is found in the pre-defined portion of the preselected website;

> (n) said computer searching said pre-selected web site for said named object when the requested information is not found in the pre-defined portion of the pre-selected web site;
>
> (o) said computer providing said retrieved information to said speech processor;
>
> (p) said speech processor converting said retrieved information into an audio message; and
>
> (q) said speech processor forwarding said audio message to a user.

Ex. 1001, 13:50–14:37. Claim 6 recites "[a] system for retrieving information from a pre-defined portion of a pre-selected web site by uttering speech commands into a phone and for providing to a user retrieved information in an audio form." *Id.* at 14:57–60. Claim 16 recites "[a] method for allowing a phone user to set up and subsequently retrieve information in an audio format from a pre-defined portion of a pre-selected web" site. *Id.* at 16:13–15.

F. Prior Art and Asserted Grounds

Petitioner asserts that the Challenged Claims are unpatentable based on five grounds:

Claims Challenged	35 U.S.C. §	References/Basis
1–3, 5–14, 16, 17, 20, 21	103(a)[1]	Brown[2]
1–3, 5–14, 16, 17, 20, 21	103(a)	Brown, Iyer[3]
4, 15, 18, 19	103(a)	Brown, Dasan[4]

[1] The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284, 287–88 (2011), amended 35 U.S.C. § 103, effective March 16, 2013. Because the '190 patent was issued on an application filed before this date, the pre-AIA version of § 103 applies. Ex. 1001, code (22).
[2] US 6,587,822 B2, issued July 1, 2003 (Ex. 1015, "Brown").
[3] US 6,446,098 B1, issued Sept. 3, 2002 (Ex. 1016, "Iyer").
[4] US 5,761,662, issued June 2, 1998 (Ex. 1013, "Dasan").

Claims Challenged	35 U.S.C. §	References/Basis
4, 15, 18, 19	103(a)	Brown, Iyer, Dasan
1–21	103(a)	Brown, Kirk[5]

Petitioner relies on the declaration testimony of Mr. Stuart J. Lipoff (Ex. 1002) in support of these grounds.

The following subsections provide brief descriptions of the asserted prior art references.

1. Brown (Ex. 1015)

Brown, titled "Web-Based Platform for Interactive Voice Response (IVR)," issued July 1, 2003, from an application, US 09/168,405, filed Oct. 6, 1998. Ex. 1015, codes (12), (54), (45), (21), (22). We reproduce Brown's Figure 1, below.

[5] US 5,768,578, issued June 16, 1998 (Ex. 1017, "Kirk").

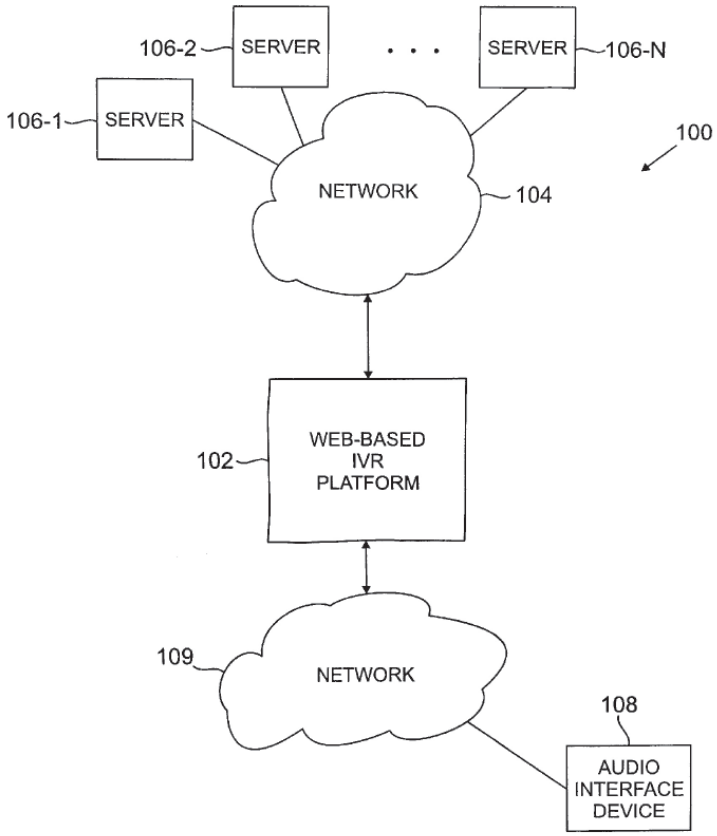


FIG. 1

Figure 1 is "is a block diagram of a system including a web-based interactive voice response (IVR) platform." Ex. 1015, 3:38–39. Brown's information retrieval system 100 includes web-based IVR platform 102, network 104 such as the Internet, servers 106-i–N, and audio interface device 108. *Id.* at 2:61–66, 3:10–12.

We reproduce Brown's Figure 2, below.

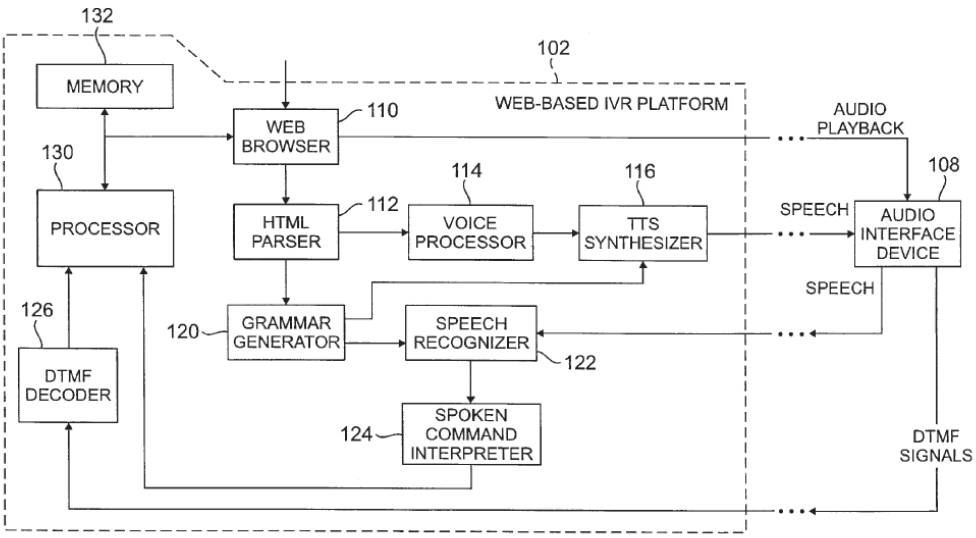


FIG. 2

Figure 2 depicts a more detailed view of the web-based IVR platform of Figure 1. Ex. 1015, 2:40–41. IVR platform 102 is a computer-based system that includes web browser 110 that is designed for use with audio interface device 108 through "network 109 which may be, for example, a public switched telephone network (PSTN), a cellular telephone network or other type of wireless network, a data network such as the Internet," and which retrieves web pages or other information from one or more of servers 106-i via network 104. *Id.* at 2:55–59, 3:15–18, 3:24–29. Web browser 110 retrieves text, audio, and other information from one or more of servers 106 over network 104. *Id.* at 3:33–35. Web "browser 110 delivers the retrieved text and other information to an HTML parser 112, [which] performs preprocessing operations which configure the retrieved text so as to facilitate subsequent interpretation by a voice processor 114 and a grammar generator 120." *Id.* at 3:35–40. "[V]oice processor 114 performs analysis of the text and other web page information supplied by the HTML

parser 112, and generates corresponding verbal descriptions which are supplied to a text-to-speech (TTS) synthesizer 116." *Id.* at 3:53–56. In particular, voice processor 114 "takes the output from the HTML parser 112 and further analyzes the corresponding retrieved HTML web page to identify structure such as, for example, section headings, tables, frames, and forms." *Id.* at 4:64–5:1. "HTML parser 112, voice processor 114 and TTS synthesizer 116 transform the text and other web page information into speech which is delivered to the audio interface device 108 via the network 109." *Id.* at 3:56–60. Voice processor 114 and TTS synthesizer 116 generate a verbal description of a web page that "may include speech output corresponding to the page text, along with descriptions of sizes, locations and possibly other information about images and other items on the page." *Id.* at 5:1–6. The description can be controlled by the user to allow individual elements of a page to be inspected, "to provide the user with flexibility in controlling the way information is delivered." *Id.* at 5:7–28.

"[G]rammar generator 120 utilizes the text and other web page information received from the HTML parser 112 to produce one or more speech recognition grammars which are delivered to a speech recognizer 122." *Id.* at 3:60–64. Grammar generator 120 "automatically generates speech recognition grammar and vocabulary from the HTML of a retrieved web page," and "parsed HTML is analyzed in grammar generator 120 for section titles, hyperlinks and other indicators that are to converted to speech." *Id.* at 5:60–66; *see also* 7:47–55. "[S]peech recognizer 122 receives speech input generated by the audio interface device 108, and utilizes the grammar produced by grammar generator 120 to recognize words in the speech." *Id.* at 3:64–67.

2. Iyer (Ex. 1016)

Iyer, titled "Method for Converting Two-Dimensional Data into a Canonical Representation," issued September 3, 2002, from an application filed January 22, 2002, and is a continuation of an application filed September 10, 1999. Ex. 1016, codes (12), (54), (45), (21), (22), (63). Iyer converts data for rendering in aural form by selecting each element of interest "based on it being part of a mathematically regular expression." *Id.* at 1:27–32.

We reproduce Iyer's Figure 1, below.

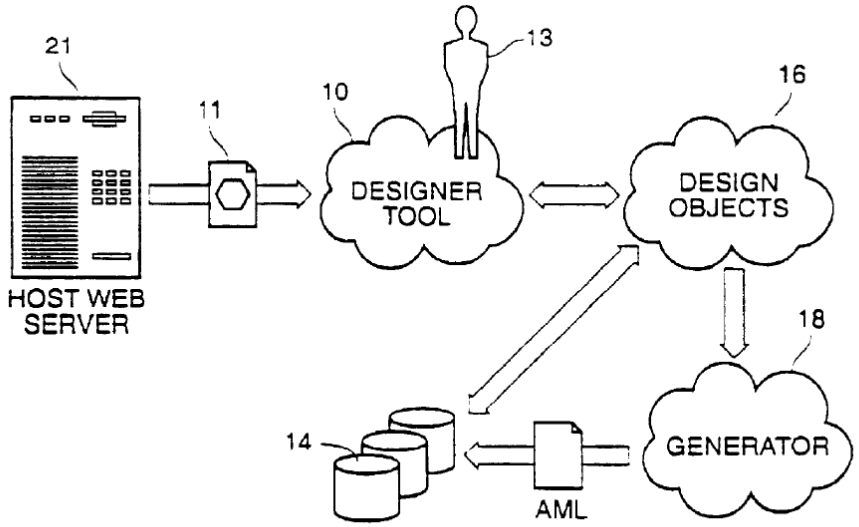


FIG. 1

Figure 1 depicts a block diagram of a system in which a design tool is employed to select and identify elements of HTML pages. Ex. 1016, 1:53–55. Interactive designer tool 10 is used to customize web pages 11 written in a mathematically regular form such as HTML found on a source web site located on a host server after the web pages have been copied to storage 14. *Id.* at 2:1–5. Designer tool 10 enables designers to select, identify and customize information from an existing web application without disturbing the source web application. *Id.* at 2:9–11. In particular, designer

tool 10 "acts like a web browser to host Web server 12 in that it queries and downloads the site's HTML pages 11." *Id.* at 2:23–25. In this way, the designer/user of tool 10 decides which pages to audio-enable, and selects the information that will be rendered at runtime. *Id.* at 2:26–28. The designer creates "vocal prompts that will ask the caller to provide data for the page's input controls," and "decide[s] what words and phrases will be recognized as proper responses from the caller in response to each prompt." *Id.* at 2:28–32. Designer tool 10 includes components to create a set of design objects that "encapsulate all the information necessary to audio-enable a Web site." *Id.* at 2:45–48. "Components can be identified, including such components as forms, tables, and lists on an HTML page," by using one of two techniques, "[i]dentify type (e.g., form, table, tr, td, etc.) and one or more of name/position/URL/dimension," or "[i]dentify 'structure' of the component." *Id.* at 9:33–38.

3. Dasan (Ex. 1013)

Dasan, titled "Personalized Information Retrieval Using User-Defined Profile," issued June 2, 1998. Ex. 1010, codes (54), (45). Dasan relates to "a method and apparatus for automatically scanning information using a user-defined profile, and providing relevant stories from that information to a user based upon that profile," to generate, for example an electronic newspaper. *Id.* at 3:21–24; *see also id.* at 2:10–15. To add topics to the profile, "the user labels the topic of interest, such as by filling in the field 802 provided by the fill-in forms feature of HTML," and then "specifies search terms used in the full-text search." *Id.* at 7:25–29, Fig.8. The process for creating the newspaper "functions as a full-text retrieval system [] controlled by the context(s) (e.g. source(s) and date(s)) and corresponding search term(s) specified in each of the topics contained in the

profile." *Id.* at 7:61–65. Dasan explains that "raw news sources come in as large text files with a predetermined format," and that "[t]he full-text searching process performed during newspaper generation is executed upon these large files." *Id.* at 8:4–7. When certain search terms having the specified context(s) in the file are located, "the portion of the file containing the located article is parsed so as to be converted into an individual ASCII file which is resident on the server." *Id.* at 8:7–11. Using "a second parsing process, the title of the article is used to create an anchor in the HTML page," and when the user selects the article, "the text of the article can then be referenced at the server, and displayed as a second HTML page." *Id.* at 8:15–21.

4. Kirk (Ex. 1017)

Kirk, titled "User Interface for Information Retrieval System," issued June 16, 1998. Ex. 1017, codes (54), (45). Kirk's "information retrieval system retrieves information from a plurality of information sources and stores information source descriptions in a knowledge base," the source descriptions contain attributes that describe the information source. *Id.* at 2:12–17. The knowledge base is a virtual information store that stores detailed information about the location of external information artifacts and how to retrieve them, wherein retrieval is done on demand. *Id.* at 4:57–63. Users can identify and save "interesting information from the information sources" into "knowledge base 109 to expedite future access to the information." *Id.* at 29:32–41. In Kirk, "user interface 103 provides [] knowledge base object editor 616" to create information source descriptions, and Kirk's system "automatically extract[s] certain attributes from the retrieved document and populat[es] the appropriate fields of the knowledge base object editor." *Id.* at 29:38–46, 29:52–57. Alternatively, Kirk adds

"information source descriptions to the knowledge base 109 [] by providing an automatic information extractor 132 . . . which automatically associates the contents of a document with concepts in the world view 115 . . . by consulting a mapping of textual regular expression patterns to world view 115 concepts." *Id.* at 30:61–31:1.

II. ANALYSIS OF PETITIONER'S CHALLENGES

A. Applicable Law

Petitioner's asserted grounds of unpatentability are based on obviousness under 35 U.S.C. § 103.

> Section 103(a) forbids issuance of a patent when "the differences between the subject matter sought to be patented and the prior art are such that the subject matter 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 said subject matter pertains."

KSR Int'l Co. v. Teleflex Inc., 550 U.S. 398, 406 (2007). The question of obviousness is resolved 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 ordinary skill in the art; and (4) when available, objective evidence, such as commercial success, long felt but unsolved needs, and failure of others.[6] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

"[O]bviousness must be determined in light of *all the facts*, and . . . a given course of action often has simultaneous advantages and disadvantages, and this does not necessarily obviate motivation to combine" teachings from multiple references. *Medichem, S.A. v. Rolabo, S.L.*, 437 F.3d 1157, 1165

[6] Neither party directs us to objective evidence of nonobviousness in the record.

(Fed. Cir. 2006) (emphasis added); *see also PAR Pharm., Inc. v. TWI Pharms., Inc.*, 773 F.3d 1186, 1196 (Fed. Cir. 2014) ("The presence or absence of a motivation to combine references in an obviousness determination is a pure question of fact.").

B. Level of Ordinary Skill in the Art

The level of skill in the art is "a prism or lens" through which we view the prior art and the claimed invention. *Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). Petitioner contends that a person having 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." Pet. 8. Petitioner adds that "[m]ore education could substitute for less experience, and vice versa." *Id.* Petitioner bases these contentions on declaration testimony from Mr. Lipoff. *Id.* (referencing Ex. 1002 ¶¶ 40, 85).

Patent Owner does not address the level of ordinary skill in the art at this stage of the proceeding.

For the purposes of this Decision, we apply Petitioner's definition of the level of ordinary skill in the art. We determine that this definition is consistent with the prior art of record and the level of skill reflected in the Specification of the '190 patent, based on our review of the limited record.

C. Claim Construction

In *inter partes* reviews, we interpret a claim "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)." 37 C.F.R. § 42.100(b). Under this standard, we construe 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." *Id.*

Petitioner states that, "[it] does not believe that any express constructions are necessary to resolve the invalidity issues presented in this petition." Pet. 8. Although Patent Owner also does not propose any express constructions, we do address one claim construction issue Patent Owner raises, below.

1. Sequence of claim limitations

Patent Owner argues that the limitations of the Challenged Claims include a temporal relationship. Prelim. Resp. 21–27. Patent Owner argues that Petitioner recognizes that claims 1 and 16 have this temporal relationship, with steps directed to setting up the system and steps directed to retrieving information in audio form after set-up. *Id.* at 21. Patent Owner argues that claim 6 has this same temporal requirement. *Id.* Patent Owner identifies the "pre-defined" and "pre-selected" language of claim 6 to support its position. *Id.*

Patent Owner argues that the '190 patent makes clear that the described embodiments include set-up aspects, "where a web site and specific information on the web site is identified, a verbal command is provided (where one did not exist), and an association between the verbal command and the web site specific information is formed." Prelim. Resp. 22. Patent Owner continues that, only after this set-up, does the described system "receive a command and, using the pre-selected and pre-defined information, access the website and retrieve the user's requested information." *Id.* at 22–23 (quoting Ex. 1001, 1:64–2:5, 2:8–14).

We agree with Patent Owner that the three independent claims include language that indicates that each claim encompasses a set-up stage and a retrieval stage. When construing a claim, we start with the language of the claims themselves. *See, e.g., Phillips v. AWH Corp.*, 415 F.3d 1303, 1314

(Fed. Cir. 2005) (en banc) ("[T]he context in which a term is used in the [claim at issue] can be highly instructive."). Claim 1 expressly recites that steps (a) through (h) are completed before step (i) and subsequent steps. Ex. 1001, 14:12–15; *see Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342 (Fed. Cir. 2001) ("Unless the steps of a method [claim] actually recite an order, the steps are not ordinarily construed to require one." (citation omitted)). For claim 16, its preamble recites "[a] method for allowing a phone user to set up and subsequently retrieve information in an audio format from a pre-defined portion of a pre-selected web [site]." *Id.* at 16:13–15; *accord id.* at 16:17–62 (affirmatively reciting "pre-defined portion of said pre-selected web site" in multiple steps in the body of the claim); *see also* Pet. 13 ("Furthermore, a [person having ordinary skill in the art] would have understood that Claim 16's preamble is similar to element 1(i) of Claim 1."); Prelim. Resp. 22–23; *cf. Function Media, LLC v. Google, Inc.*, 708 F.3d 1310, 1320 (Fed. Cir. 2013) (concluding that a claim that recites "processing" an "electronic advertisement" necessarily indicates that "the creation of the ad must happen before the processing begins").

Unlike claims 1 and 16, which are method claims, claim 6 recites a system. *See* Ex. 1001, 14:57–15:51. Like claims 1 and 16, however, claim 6 recites "a pre-defined portion of a pre-selected web site" in its preamble and the "pre-defined portion of the pre-selected web site" (or similar language) in the body of the claim. *See id.*; Prelim. Resp. 21. As such, the language of claim 6 reflects a set-up phase, where a web site is pre-selected, and portions of that web site are pre-defined upon with the system subsequently acts. *See TALtech Ltd. v. Esquel Apparel, Inc.*, 279 F. App'x 974, 978 (Fed. Cir. 2008) (concluding that a claim "requires an ordering of steps when the claim language, as a matter of logic or grammar,

requires that the steps be performed in the order written, or the specification directly or implicitly requires" an order of steps).

The Specification also supports an understanding that the claims, including claim 6, are directed to set up and retrieval phases. *See Phillips*, 415 F.3d at 1315. ("[T]he specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'"). For example, the Specification summarizes the invention as follows:

> A user creates a user-defined record in a database that identifies an information source, such as a web site, containing information of interest to the user. This record identifies the location of the information source and also contains a recognition grammar assigned by the user. Upon receiving a speech command from the user that is described in the assigned recognition grammar, a network interface system accesses the information source and retrieves the information requested by the user.

Ex. 1001, 1:64–2:5. Similarly, in summarizing the voice-activated information system, the Specification describes that "[a] user creates a descriptor file defining specific information found on a web site the user would like to access in the future. The user then assigns a pronounceable name or identifier to the selected content and this pronounceable name is saved . . . along with the URL of the selected web site." *Id.* at 2:8–14.

The Specification explains that a user creates an instruction set for retrieving information from a pre-selected web site as part of setting up the system. Ex. 1001, 3:15–23. This instruction set is used to create a content descriptor file to be subsequently used to retrieve the desired information. *Id.* at 3:32–34. The user is also prompted to provide a word or phrase to associate with pre-defined information from the pre-selected web site, which

is stored as personal recognition grammar that can be recognized when the phrase is used with voice browsing system 108. *Id.* at 4:40–48.

To summarize, we construe the Challenged Claims as including a temporal aspect, covering a set-up phase and a subsequent retrieval phase, as argued by Patent Owner.

2. Other claim terms

Except as provided above, we determine that we need not expressly construe any other claim terms to resolve the parties' disputes on the current record. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) ("The Board is required to construe 'only those terms that . . . are in controversy, and only 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)). To the extent that the scope of any particular claim term requires discussion, however, we provide it in our assessment of the challenges, which we turn to next.

D. Grounds 1 and 2: Claims 1–3, 5–14, 16, 17, 20, and 21 as unpatentable over Brown alone, or, alternatively, over Brown and Iyer

Petitioner contends that claims 1–3, 5–14, 16, 17, 20, and 21 are unpatentable over Brown alone (Ground 1), or, alternatively, over Brown and Iyer (Ground 2). Pet. 8, 12–56. Below, we discuss the scope and content of the prior art and any differences between the prior art and claimed subject matter.

1. Independent claims 1, 6, and 16

(a) "providing a speech command" steps of claims 1 and 16

Claim 1 recites, in relevant part, the step of "providing a speech command to said speech processor, said speech command corresponding to

said regular expression." Ex. 1001, 14:4–6 (limitation 1(f)). Claim 16 recites, in relevant part, the step of "providing a speech command to said speech recognition engine, said speech command corresponding to said instruction sets." *Id.* at 16:36–38 (limitation 16[E][7]). For these limitations, Petitioner relies on Brown alone for teaching the subject matter of limitations for both Grounds 1 and 2. Pet. 30.

Petitioner contends that Brown's speech recognizer 122 receives speech input from interface 108, and uses grammar generator 120 to recognize the speech. Pet. 30 (referencing Ex. 1015, 3:64–67). Petitioner contends that "[t]he recognized words are supplied to 'spoken command interpreter 124, which interprets the indicators to generate corresponding command signals' that are then supplied to 'processor 130 which controls the operation of . . . IVR platform 102.'" *Id.* (referencing Ex. 3:67–4:5). Petitioner also contends that a person having ordinary skill in the art "would have understood that Brown's speech command corresponds to regular expression/instruction sets because it is used to 'control[] the operation of at least a portion of . . . IVR platform 102' and thus search and retrieve the requested information." *Id.* (referencing Ex. 1002 ¶ 129).

Patent Owner argues that Petitioner mischaracterizes Brown by contending that controlling operation of the IVR platform is a search and retrieval of requested information. Prelim. Resp. 33–34. Patent Owner argues that Brown's speech commands are for navigating a website only, and not for searching. *Id.* at 34. Patent Owner argues that Brown's speech

[7] Unlike claim 1, which labels its steps, claim 16 provides no explicit labels. *Compare* Ex. 1001, 16:13–32, *with id.* at 13:50–14:37. We adopt the limitation labels provided by Petitioner. *See, e.g.*, Ex. 1020 (providing a mapping of limitations between the three independent claims).

commands do not correspond to a regular expression (limitation 1(f)) or instruction sets (limitation 16[E]). *Id.* Patent Owner argues that "[t]he Brown command signals control **browser navigation** either within the current web page (description mode or inspection mode) or to an external web page (via hyperlink URL)." *Id.*

Patent Owner argues that Brown discloses a system that operates in two modes: description mode or inspection mode. Prelim. Resp. 34. Patent Owner explains that, in description mode, Brown retrieves and processes a web page and audibly recites the text of the page to a user. *Id.* at 34–35. A user can control this audio recitation using voice commands such as pause, backup, and skip. *Id.* at 35 (quoting Ex. 1015, 5:10–17). Patent Owner argues that these commands do not correspond to regular expression or instruction sets. *Id.*

Patent Owner explains that, in inspection mode, Brown's system provides a user with a description of the structure of a web page and allows the user to use voice commands to navigate about the page. Prelim. Resp. 35–36 (quoting Ex. 1015, 5:34–37, 8:61–64, 11:22–24, 10:25–29). Patent Owner argues that "similar to the description mode commands, the navigational commands in the inspection mode have no correspondence to either a regular expression or instruction set(s)." *Id.* at 36.

In addressing Brown's hyperlink voice commands, Patent Owner argues that "appropriate grammar (from the hyperlink title information) is associated with hyperlink URL(s) and placed into the command interpretation tables. In this way, a voice command may be used to retrieve the hyperlink URL through the associated grammar." Prelim. Resp. 36. Again, Patent Owner argues that "these voice commands . . . have no correspondence to either a regular expression or instruction set(s). Indeed[,]

these voice commands are simply used to retrieve a new, unprocessed web page corresponding to the hyperlink URL." *Id.* at 36–37 (referencing Ex. 1015, 6:30–40).

Finally, Patent Owner argues that these two limitations are directed to the set-up phase, which Brown does not disclose. Prelim. Resp. 37.

Upon review of the parties' arguments and associated evidence, we agree with Patent Owner that Petitioner fails to demonstrate sufficiently for institution that Brown teaches the subject matter of steps 1(f) and 16[E], and specifically, providing a speech command that corresponds to a regular expression or set of instructions. As Patent Owner argues, step 1(f) is part of the set-up phase of steps in claim 1. *See* Ex. 1001, 13:50–14:37 (providing the steps of claim 1 and indicating that steps (a) through (h) are performed before retrieval of a pre-defined portion of a preselected web site, at steps (i) through (q)); Prelim. Resp. 25–27, 37. At step 1(f), a speech command is provided to correspond to a regular expression, which is based on the pre-defined portions of the pre-selected web site and corresponds to the information to be retrieved from the web site, where the "regular expression is a text string used for describing a search pattern." Ex. 1001, 13:65–14:3 (reciting step (e) of claim 1). In this way, when, at step (i), an audio speech command is transmitted to the speech processor, the computer recognizes the speech command, and retrieves the regular expression corresponding to that speech command at step 1(l). In other words, part of the set-up process is to associate a speech command with a regular expression that is subsequently used to retrieve the pre-selected information.

As Patent Owner argues, Brown does not include a set-up phase. Prelim. Resp. 37. Instead, Brown's speech commands are used to navigate a processed web page, which is rendered to a user in audio form—either based

on its content (description mode) or its structure (inspection mode). *See, e.g.*, Ex. 1015, 5:7–10 ("Depending on the preference of the user, the page can be described by content or by structure. For example, a user may be permitted to choose either a description mode or an inspection mode."), 5:10–17 ("In an example of the description mode, the IVR platform 102 will immediately start to describe a new web page upon retrieval . . . . The user can command IVR platform 102 to pause, backup, skip ahead, etc., in a manner similar to controlling an audio tape player . . . ."), 18–23 ("In an example of the inspection mode, IVR platform 102 will briefly describe the structure of the page and wait for spoken inspection commands. Inspection commands allow the user to 'descend' into elements of the page to obtain greater detail than might normally be obtained in the description mode."). That is, the commands delivered to the IVR platform instruct the platform how to operate as the platform delivers the web site content or structure to the user over the phone, and after the web site has been processed.

The Petition's deficiency is evident from Petitioner's reliance on the same disclosure in Brown for satisfying the "providing a speech command" subject matter of step 1(f) and the "transmitting an audio speech command" subject matter of step 1(i), which, as claim 1 requires, occurs after steps 1(a) through (h) (including step 1(f)) are completed. *See, e.g.*, Prelim. Resp. 25–26 (providing a claim chart comparing Petitioner's positions for limitations 1(f) and 1(i)). Petitioner relies on Brown's disclosure of speech recognizer 122 receiving speech input generated by audio interface device 108 and using grammar produced by grammar generator 120 to recognize the speech, which are provided to command interpreter 124 to control the IVR platform. *See* Pet. 30 (providing contentions for limitation 1(f)), 35 (providing contentions for limitation 1(i), and referencing

contentions made for limitation 1(f)); Prelim. Resp. 25–26. Petitioner does not explain sufficiently how the identical disclosure—disclosure associated with commands for navigating a web page retrieved by Brown's system—demonstrates that Brown teaches setting up the system to retrieve a pre-defined portion of a pre-selected web site, corresponding to a regular expression.

Similarly, for limitation 16[E], the provided speech command corresponds to instruction sets provided during the set-up phase. Ex. 1001, 16:36–38. Claim 16 requires that the first instruction set "identify[] the pre-defined portion of a pre-selected web [site] containing the content of the information to be retrieved from the web site" and contain a URL and "a named object associated with the content of the information to be retrieved." *Id.* at 16:21–28. A second instruction set is used to generate "a regular expression based on said pre-defined portion of said pre-selected web site and said named object, said regular expression corresponding to said content of said information to be retrieved." *Id.* at 16:29–33. That is, these instruction sets are used to identify the portions of a pre-selected web site to be retrieved. Again, Brown's commands are for site navigation, and Brown does not disclose associating any speech command with instructions used to subsequently retrieve a pre-defined portion of a pre-selected web site, as required by limitation 16[E].

Further, even if Brown's commands correspond to the recited speech command, Petitioner does not sufficiently explain why a person having ordinary skill in the art "would have understood that Brown's speech command corresponds to regular expression/instruction sets because it is used to 'control[] the operation of at least a portion of . . . IVR platform 102' and thus search and retrieve the requested information." *See* Pet. 30.

Petitioner relies on testimony from Mr. Lipoff to support this contention. *See id.* (referencing Ex. 1002 ¶ 129). Mr. Lipoff's testimony mirrors the language in the Petition, without providing any additional explanation. Ex. 1002 ¶ 129. Mr. Lipoff does cite to Brown at column 7, lines 53 to 55. *See id.* This citation, however, does not support Mr. Lipoff's testimony. Brown states that "[t]he parsing operations required to do this extraction can be implemented using conventional regular expression parsing." Ex. 1015, 7:53–55. The "extraction" referenced in this sentence are hyperlink titles, "'ALT' fields," and certain other text such as section headings. *Id.* at 7:47–53. This citation does not indicate how Brown's speech command *corresponds* to a regular expression or instruction sets as Petitioner contends.

For the reasons above, we determine that Petitioner fails to demonstrate sufficiently that Brown discloses the subject matter of limitation 1(f) and limitation 16[E].

(b) "providing a speech command" component of claim 6

Claim 6 recites "a recognition grammar corresponding to each said instruction set and corresponding to a speech command." Ex. 1001, 15:31–33 (limitation 6[I]). Related to this limitation, claim 6 also recites:

> first instruction set stored on said server, said first instruction set configured to identify the pre-defined portion of the pre-selected web site and to identify a named object associated with the content of the information to be retrieved, said pre-defined portion containing the information to be retrieved from the web site, said first instruction set comprising:
>
> a uniform resource locator address for said web site;
>
> and the named object;
>
> a second instruction set stored on said server, said second instruction set configured to generate a regular expression based on said pre-defined portion of said pre-selected web site and said

> named object, said regular expression corresponding to said content of said information to be retrieved, wherein said regular expression is a text string used for describing a search pattern.

Id. at 15:12–30.

Petitioner contends, under both Grounds 1 and 2, that Brown discloses the subject matter of limitation 6[I]. Pet. 30–31.[8] "Specifically," Petitioner contends that "Brown's grammar generator utilizes textual information to produce a speech recognition grammar, which is supplied to the 'speech recognizer and used to interpret voice commands and other speech input generated by the user.'" *Id.* at 31 (referencing Ex. 1015, Abstract, 5:60–6:8). Petitioner adds that "'[a]ppropriate indicators of the recognized words' are supplied to spoken command interpreter 124 for interpretation and to 'generate corresponding command signals,' which are then provided to processor 130 to 'control[] the operation of . . . IVR platform 102.'" *Id.* (referencing Ex. 1015, 3:60–4:5). Petitioner contends that a person having ordinary skill in the art "would have understood that Brown's speech recognition grammar corresponds to a data message such as a command/instruction set because the grammar is used to 'generate [the] corresponding command signals' that control the system's operation." *Id.* (referencing Ex. 1002 ¶ 131).

Patent Owner responds that Petitioner fails to understand the function of the claimed instruction set. Prelim. Resp. 37–38. Patent Owner argues that "[a]s the claims require, the first instruction set **identifies** the pre-defined portion of the pre-defined website and **identifies** a named object associated with the content of the information to be retrieved." *Id.* at 38

[8] Petitioner provides the same contentions for limitation 6[I] as for limitations 1(g) and 16[F]. We address limitation 6[I] only at this time.

(quoting Ex. 1001, 15:23–22). Patent Owner argues that Petitioner focuses on the function of generating command signals to control Brown's system, that is, "command signals [that] control **browser navigation** either within the current web page (description mode or inspection mode) or to an external web page (via hyperlink URL upon another request from the user)." *Id.* Patent Owner adds that "Brown's grammar corresponds only to navigation commands and these navigational commands have no association to any information on a web page" pre-determined by a user. *Id.* at 39–40 (quoting Ex. 1015, 5:13–17, 8:61–64, and providing an annotated version of Brown's Figure 2, highlighting relevant components). Patent Owner concludes that "Brown's navigational commands do not identify a pre-defined portion of the pre-selected web site. Nor do they identify a named object associated with the content of the information to be retrieved."

Patent Owner also argues that limitation 6[E] "is a 'set up' limitation . . . and is not disclosed by Brown." Prelim. Resp. 40.

Upon review of the parties' arguments and associated evidence, we agree with Patent Owner that Petitioner fails to demonstrate sufficiently for institution that Brown teaches a system with "a recognition grammar corresponding to each said instruction set and corresponding to a speech command" as required by claim 6. As with limitations 1(f) and 16[E], discussed in our analysis in the previous subsection, the subject matter of limitation 6[I] is associated with setting up the system to subsequently retrieve a pre-defined portion of a pre-selected web site. Claim 6 requires the system to include "a first instruction set stored on said server, said first instruction set configured to identify the pre-defined portion of the pre-selected web site and to identify a named object associated with the content of the information to be retrieved, said pre-defined portion

containing the information to be retrieved from the web site." Ex. 1001, 15:12–18. The system also includes "a recognition grammar *corresponding to each said instruction set* and *corresponding to a speech command*." *Id.* at 15:30–32 (emphasis added). This correspondence ties the speech command to the instruction set, so that in the retrieval operation, the speech command is used to allow the system to retrieve the pre-defined portion containing the information to be retrieved from the web site. *See id.* at 15:33–51 (reciting system limitations that perform the retrieval operations); *cf. id.* at 1:64–2:5 (summarizing the invention, including associating the recognition grammar with the user-defined record used to subsequently retrieve the information of interest to the user).

Petitioner relies on disclosure from Brown directed to command signals used to navigate or otherwise operate Brown's IVR system after a web page has been retrieved and parsed. *See* Pet. 31. Petitioner fails to explain sufficiently for institution how these commands correspond to the recited instruction sets, configured to identify the pre-defined portion of the pre-selected web site, the pre-defined portion containing the information to be retrieved from the web site.

Mr. Lipoff's testimony, upon which Petitioner relies, also fails to support sufficiently Petitioner's contentions. *See* Pet. 31 (citing to Ex. 1002 ¶ 131). Mr. Lipoff's testimony mirrors the contentions in the Petition, without providing any additional testimony or citations to the evidence to support his opinion. His testimony is conclusory and entitled to little weight. *See Velander v. Garner*, 348 F.3d 1359, 1371 (Fed. Cir. 2003) ("It is within the discretion of the trier of fact to give each item of evidence such weight as it feels appropriate."); 37 C.F.R. § 42.65(a) ("Expert testimony that does not disclose the underlying facts or data on which the opinion is

based is entitled to little or no weight."); *cf. Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 294 (Fed. Cir. 1985) ("Lack of factual support for expert opinion going to factual determinations, however, may render the testimony of little probative value in a validity determination.").

For the reasons above, including reasoning provided in our analysis of limitations 1(f) and 16[E], we determine that Petitioner fails to demonstrate sufficiently that Brown discloses the subject matter of limitation 6[I].

(c) Conclusion

For the reasons discussed above, we determine that the information presented in the Petition fails to show a reasonable likelihood that independent claims 1, 6, and 16 are unpatentable under 35 U.S.C. § 103 over Brown (Ground 1) or Brown and Iyer (Ground 2).[9]

2. Dependent claims 2, 3, 5, 7–14, 17, 20, and 21

Dependent claims 2, 3, 5, 7–14, 17, 20, and 21 depend, directly or indirectly, from claims 1, 6, or 16. For the reasons discussed above in our analysis of independent claims 1, 6, and 16, we determine that the information presented in the Petition fails to show a reasonable likelihood

[9] Because we determine that Petitioner fails to demonstrate that Brown teaches limitations 1(f), 6[I], and 16[E], we do not reach any other arguments presented by Patent Owner.

that claims 2, 3, 5, 7–14, 17, 20, and 21 are unpatentable under 35 U.S.C. § 103 over Brown (Ground 1) or Brown and Iyer (Ground 2)[10].

E. Grounds 3 and 4

For Ground 3, Petitioner contends that claims 4, 15, 18, and 19 are unpatentable as obvious over Brown and Dasan. Pet. 3, 56–62. For Ground 4, Petitioner contends that claims 4, 15, 18, and 19 are unpatentable as obvious over Brown, Iyer, and Dasan. *Id.* Claims 4, 15, 18, and 19 depend, directly or indirectly, from either claim 1 or claim 16. Petitioner does not rely on Dasan (of Iyer) to remedy the deficiencies we identify above in our analysis of claims 1 and 16 in connection with Grounds 1 and 2.

Accordingly, for the reasons discussed above in connection with our analysis of Grounds 1 and 2, we determine that the information presented in the Petition fails to show a reasonable likelihood that claims 4, 15, 18, and 19 are unpatentable under 35 U.S.C. § 103 over Brown and Dasan (Ground 3) or Brown, Iyer, and Dasan (Ground 4).

F. Ground 5: Claims 1–21 as unpatentable over Brown and Kirk

Petitioner contends that the combination of Brown and Kirk renders obvious claims 1–21. Pet. 3, 62–71. For Ground 5, Petitioner relies on its contentions with respect to Grounds 1 and 2 for most limitations of

[10] Dependent claim 5 depends from claim 1 through claim 4. Ex. 1001, 14:52–55. Petitioner includes claim 4 in Grounds 3 and 4. As such, Petitioner fails to explain adequately how claim 5 is obvious over Brown (Ground 1) or Brown and Iyer (Ground 2) for this additional reason. Because we determine that Petitioner fails to demonstrate the independent claims are unpatentable under any of Grounds 1, 2, 3, or 4, however, Petitioner does not demonstrate that claim 5 is unpatentable even if we consider it as part of Grounds 3 and 4.

independent claims 1, 6, and 16, including limitations 1(f), 6[I], and 16[E]. *See* Pet. 58. Accordingly, for the reasons discussed above in connection with our analysis of Grounds 1 and 2, we determine, on the current record, that the information presented in the Petition fails to show a reasonable likelihood that claims 1–21 are unpatentable under 35 U.S.C. § 103 over Brown and Kirk (Ground 5).

III. CONCLUSION

Based on the information presented, we determine Petitioner has not established a reasonable likelihood that it would prevail with respect to any of the Challenged Claims. Accordingly, we do not institute an *inter partes* review.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), the Petition is *denied*.

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