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Paper 12
Date: September 18, 2023

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE LLC and YOUTUBE, LLC,
Petitioner,

v.

ROBOCAST, INC.,
Patent Owner.

IPR2023-00590
Patent 7,155,451 B1

Before DAVID C. MCKONE, PATRICK M. BOUCHER, and MICHAEL T. CYGAN, *Administrative Patent Judges*.

MCKONE, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background and Summary

Google LLC and YouTube, LLC (collectively "Petitioner") filed a Petition requesting an *inter partes* review of claims 1–21, 37, and 38 of U.S. Patent No. 7,155,451 B1 (Ex. 1001, "the '451 patent"). Paper 2 ("Pet."). Robocast, Inc. ("Patent Owner") filed a Preliminary Response to the Petition. Paper 9 ("Prelim. Resp."). With our authorization, Petitioner filed a Preliminary Reply (Paper 10) and Patent Owner filed a Preliminary Sur-reply (Paper 11).

We have authority to determine whether to institute an *inter partes* review. *See* 35 U.S.C. § 314 (2016); 37 C.F.R. § 42.4(a) (2019). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted "unless . . . there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition." For the reasons explained below, we decline to institute an *inter partes* review of the '451 patent.

B. Related Matters

The parties identify several proceedings that may affect, or be affected by, this proceeding, including: *Robocast, Inc. v. YouTube, LLC*, Case No. 1:22-cv-00304 (D. Del.) ("parallel litigation"); and *Robocast, Inc. v. Microsoft Corp.*, Case No. 1:10-cv-01055 (D. Del.) (involving the '451 patent) ("*Microsoft* case"); and *Netflix, Inc. v. Robocast, Inc.*, IPR2023-00081 (PTAB) ("the '081 IPR"). Pet. 1; Paper 6, 2.

Additionally, *Google LLC v. Robocast, Inc.*, IPR2023-00591 (PTAB) challenges different claims of the '451 patent.[1]

C. The '451 Patent

The '451 patent describes "a presentation software" that "is employed in a web browser software." Ex 1001, 2:51–53. When this software is used,

> A triggering event, such as a mouse click on a single "link" commences the presentation of a series of resources instead of one resource at a time. This arrangement of resources, is defined as a "show structure" or "structure," which contains a set of nodes. Each node represents a resource such as a web page, an executable file, or a data file stored at a predetermined location and accessed via its corresponding address. This structure allows access to one or several topics of information from several sources in a continuous arrangement. The topics of information include multimedia data such as audio, video, graphics and text that together define a presentation show to a user.

Id. at 2:53–64. "Each node in the structure includes both an address from which the information may be accessed and an indication of the duration for which the content will be presented." *Id.* at 3:26–29.

Figure 2B of the '451 patent is reproduced below.

[1] Petitioner filed a paper explaining its basis for filing multiple petitions challenging the '451 patent and arguing that we should not exercise discretion to deny one of the petitions pursuant to the guidance in the Consolidated Trial Practice Guide (Nov. 2019) at 59 ("Based on the Board's experience, one petition should be sufficient to challenge the claims of a patent in most situations."). Paper 3. Patent Owner filed an objection to Petitioner's filing of multiple petitions, arguing that we should deny one of them pursuant to the Trial Practice Guide's guidance. Paper 8. Because we deny the Petition on the merits, we do not reach whether multiple petitions are appropriate to challenge the '451 patent.

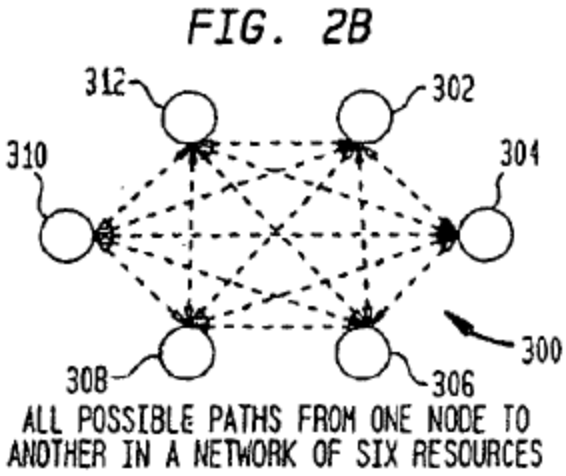
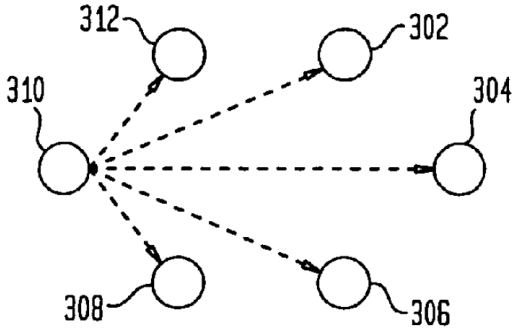


Figure 2B illustrates an array 300 of nodes 302, 304, 306, 308, 310, 312 that are available for presentation, with each node in the array accessible from the other nodes. *Id.* at 7:4–7. "Each node identifies an available resource and the time the resource may be presented to the user." *Id.* at 7:2–4. "For a typical show or presentations, an arrangement of these nodes or a portion of these nodes is selected for presentation." *Id.* at 7:7–9. "[A] show structure is defined by one or more paths that are spanned through these nodes." *Id.* at 7:10–12.

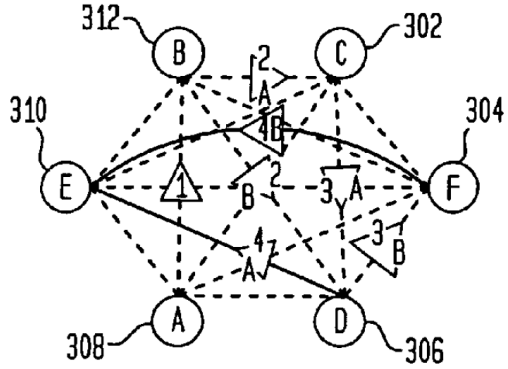
Examples of such arrangements or portions of nodes are provided in Figures 2C–2F, and include such structures as "a show structure that simultaneously spans multiple paths from the same starting node" or "spans multiple paths concurrently." *Id.* at 7:13–16, 7:27–29. Figures 2C and 2E are reproduced below:

FIG. 2C



UNIQUE PATHS WITH THE SAME STARTING POINT AND A LENGTH OF ONE IN A NETWORK OF SIX RESOURCES

FIG. 2E



A MULTIPATH WITH A LENGTH OF FOUR IN TWO POSSIBLE PATHS IN A NETWORK OF SIX RESOURCES

Figures 2C and 2E illustrate show structures. *Id.* at 7:13–16, 7:27–29. In one example, "a show in accordance with the structure presented in FIG. 2c simultaneously presents the contents identified by nodes 312, 302, 304, 306 and 308, after the content identified by node 310 is presented." *Id.* at 7:16–19. In another example (Fig. 2E), the structure "first presents the contents identified by node 310, followed by the contents identified by node 312," and "[t]hereafter, the show structure presents contents identified in nodes 302, and 306 at the same time that it presents the contents identified in nodes 306 and 304," and finally "presents contents identified in node 310." *Id.* at 7:32–39.

Figure 4 is reproduced below:

FIG. 4
RoboSurf

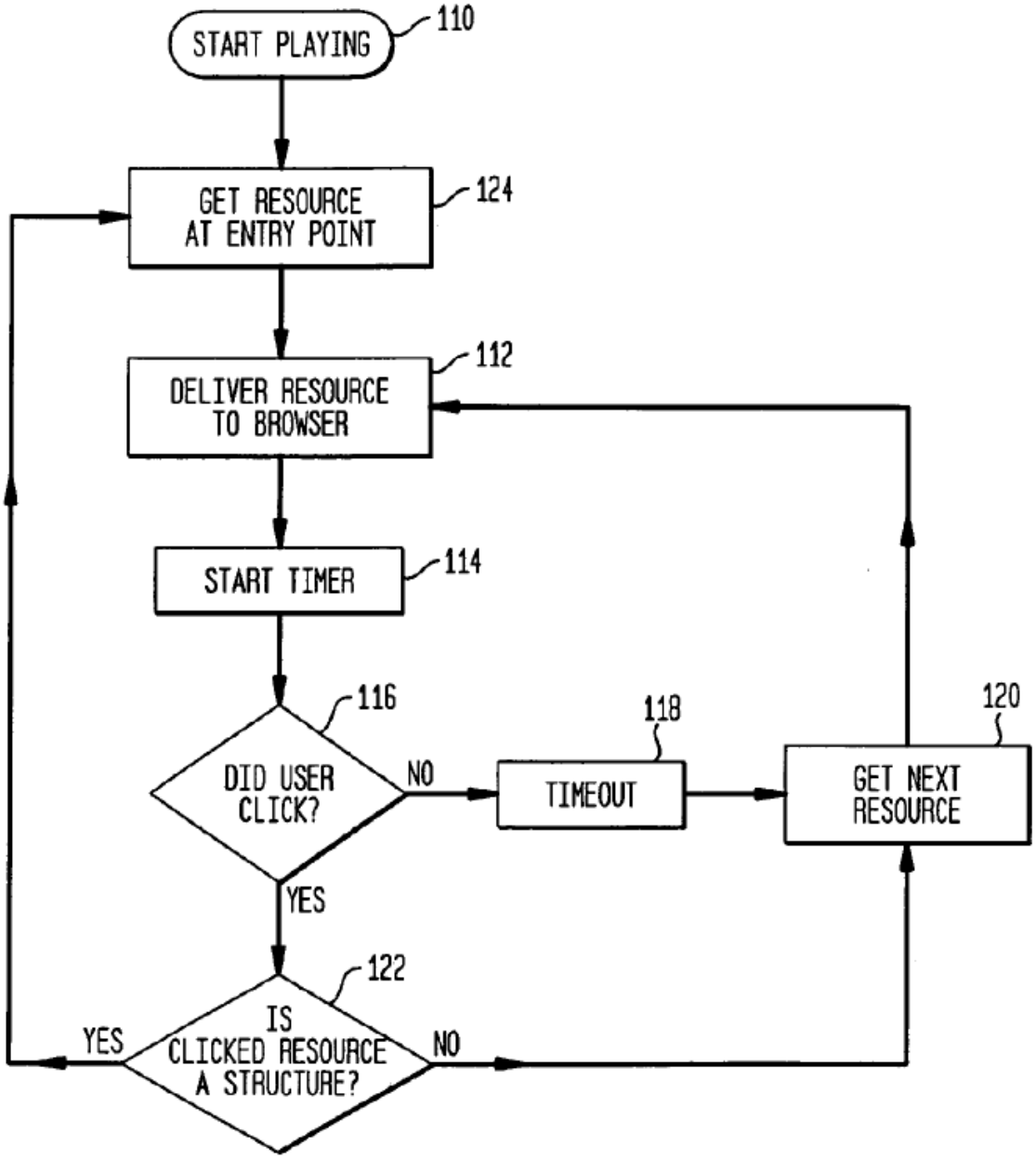


Figure 4 is a flow-chart diagram of a client-side software application that processes URLs and predefined structures automatically while monitoring timer settings and navigation decisions of users. *Id.* at 4:20–23; 10:49–52.

At step 110, the process of Figure 4 accesses a default list of URLs that may be generated by a source such as a web server network, a profiler

program, a search engine, or a screen saver's play queue. *Id.* at 10:59–11:3. A URL is delivered to a user's browser at step 112 and the content referenced by the URL is activated automatically for presentation to the user. *Id.* at 11:4–8. When presentation starts, the process starts a timer (step 114), and while the timer is running, the process monitors the user's action to determine if the user wants to manually override the play sequence by clicking a URL (step 116). *Id.* at 11:8–16. If the user selects a link (step 122) and the link is part of a different show structure, the process proceeds to step 124, and the newly selected show structure replaces the current show structure. *Id.* at 11:17–21. If the selected link is not part of another show structure, the process proceeds to step 120 to retrieve the next resource (step 120), the timer is reset, and play continues at step 112. *Id.* at 11:21–24. If the user does not select a link, the timer expires (step 118) and the play sequence continues at step 120. *Id.* at 11:34–35.

Claims 1, 10, and 37 are independent. Claim 1, reproduced below[2], is illustrative of the invention:

> 1. A method for displaying on a user's computer, content derived from a plurality of resources in an organized arrangement comprising the steps of:
>
> [a] creating a show structure of nodes, each node identifying a resource from a plurality of accessible resources;
>
> [b] without requiring user input, automatically accessing a plurality of said resources each of said resources identified by each of said nodes; and
>
> [c] displaying a content corresponding to each of said resources automatically in accordance with said

[2] We use the bracketed lettering added by Petitioner to differentiate among the claim limitations.

> show structure, wherein said step of creating further comprises the step of providing an interactively variable duration information, representing the duration within which a corresponding content to said resource is being displayed so as to enable a user to vary said duration.

D. Evidence

Petitioner relies on the references listed below.

Reference		Date	Exhibit No.
Benedict	Robert C. Benedict, Jr., USING HARVARD GRAPHICS® VERSION 2 FOR WINDOWS™	1993	1004
Filepp	US 5,347,632	Sept. 13, 1994	1007
Sagman	Stephen W. Sagman, RUNNING MICROSOFT POWERPOINT 4 FOR WINDOWS	1994	1006
Fox	David Fox & Troy Downing, HTML WEB PUBLISHER'S CONSTRUCTION KIT	1995	1005
Shimizu	US 5,634,062	May 27, 1997	1003
Robertson	US 6,486,895 B1	Nov. 26, 2002	1009

Petitioner also relies on the Declaration of Christopher M. Schmandt, (Ex. 1002).

E. The Asserted Grounds of Unpatentability

Petitioner contends that claims 1–21, 37, and 38 are unpatentable under the following grounds. Pet. 3.

Claims Challenged	35 U.S.C. §	References
1–8	103[3]	Shimizu, Benedict, Fox
10–12	103	Shimizu, Benedict, Fox, Sagman
13–20	103	Shimizu, Benedict, Fox, Sagman, Filepp
37, 38	103	Shimizu, Benedict, Fox, Robertson
9	103	Shimizu, Benedict, Fox, Robertson, Sagman
21	103	Shimizu, Benedict, Fox, Sagman, Filepp, Robertson

II. ANALYSIS

A. Level of Skill in the Art

Petitioner argues that a person of ordinary skill in the art "would have possessed a bachelor's in electrical engineering, computer science, or similar field, with at least two years of experience developing and implementing network-based computer systems, such as systems for storing and retrieving information over the Internet or communicating using the Web," and "could also have qualified with more formal education and less technical experience, or vice versa." Pet. 5 (citing Ex. 1002 ¶¶ 13–18).

Patent Owner, without citing evidence, contends that a skilled artisan "would have the equivalent of a four-year degree from an accredited institution (usually denoted as a B.S. degree) in computer science, computer engineering or the equivalent, and experience with, or exposure to, topics in computer networking, multimedia, and web systems"; "would also have approximately 3–5 years of professional experience with these topics"; and

[3] 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 '451 patent claims a filing date before March 16, 2013, the effective date of the relevant amendment, the pre-AIA version of § 103 applies.

"[a]dditional graduate education could substitute for professional experience, while significant experience in the field might substitute for formal education." Prelim. Resp. 6.

For purposes of this Decision, we adopt Petitioner's proposal, which we find consistent with the level of skill reflected by the prior art, and which is supported by expert testimony. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (the prior art may reflect an appropriate level of skill in the art). However, we do not see a substantial difference between the parties' proposals. Thus, our Decision would be the same under Patent Owner's proposal.

B. Claim Construction

We construe 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), 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).

As Petitioner notes, the District Court in the *Microsoft* case previously construed terms of the '451 patent claims. Pet. 7–8 (citing Ex. 1023, June 28, 2013, Claim Construction Opinion). Petitioner states that it "does not believe express claim construction is necessary at this time," and that "[t]he prior art cited herein, as demonstrated below, renders the challenged claims obvious under the district court's constructions or under any other reasonable construction." *Id.*

"Patent Owner believes that these prior district court constructions should be adopted for purposes of this proceeding." Prelim. Resp. 6. Patent Owner notes that the Board has adopted the *Microsoft* court's constructions in previous proceedings, including the '081 IPR. *Id.* at 7.

In summary, the *Microsoft* court construed claim terms as follows:

Claim Term	*Microsoft* case construction
"show structure of nodes" (claims 1, 10, 37)	"a structure that is arranged for the display of content by specifying one or more paths through a plurality of nodes. The show structure of nodes specifies the duration of any display" (Ex. 1023, 2–13) "the Court did not intend to include a separate durational requirement in the term 'show structure of nodes' separate from the construction of 'node'" (Ex. 2003, 5)
"node" (claims 1, 10, 37)	"an identifier of a resource that includes an address to the resource and the duration for which the resource's content is to be presented by default" (Ex. 1023, 16–17)
"multidimensional show structure of nodes" (claim 37)	"show structure of nodes, in which the nodes are presented concurrently for at least some portion of the show" (Ex. 1023, 13–16)
"interactively variable duration information" (claims 1, 11)	"a parameter specifying how long a content is to be displayed by default before a subsequent content is displayed, where the viewer of the content can change the parameter" (Ex. 1023, 22–23)
"at least two of said nodes are spanned concurrently" (claim 37)	"nodes are accessed such that the content corresponding to at least two nodes is accessed at the same time" (Ex. 1023, 23–25)

The *Microsoft* court provided reasoned constructions, which Patent Owner contends that we should adopt. Ex. 1023. *See also* 37 C.F.R. § 42.100(b) ("Any prior claim construction determination concerning a term

of the claim in a civil action, or a proceeding before the International Trade Commission, that is timely made of record in the *inter partes* review proceeding will be considered."). Petitioner does not allege any error in the *Microsoft* court's decision or provide any alternative constructions. We adopt the *Microsoft* court's constructions of "show structure of nodes" and "nodes" for purposes of this Decision.

Based on the record before us, we do not find it necessary to provide express claim constructions for any other claim 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 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)).

We address the terms "node" and "interactively variable duration information" below.

1. "node"

As noted above, the *Microsoft* court construed "node" to mean "an identifier of a resource that includes an address to the resource and the duration for which the resource's content is to be presented by default." Ex. 1023, 16. The parties raise two aspects of this construction in their arguments, namely, that a node must "include[] an address to the resource" and that a node must "include[] . . . the duration for which the resource's content is to be presented by default."

As to the first issue, Patent Owner contends that "[t]he district court's construction indicates that a 'node' and a 'resource' are separate and distinct entities," and that "the claim language establishes that *resource content* is

physically located separate and apart from *node content*." Prelim. Resp. 8, 10. This serves as a basis for Patent Owner's argument that "Shimizu's hypertext nodes do not serve as *identifiers* of separate and distinct 'resources' consisting of content different from their own which gets presented/displayed to computer end-users in accordance with a show structure as the claim language requires." *Id.* at 37–38. Because the Petition is deficient for other reasons, we do not reach whether a node and a resource must be distinct entities physically located separate from each other, or the impact that construction would have on Petitioner's allegations regarding Shimizu.

As to the second issue, claims 1 and 37 each recite "each node identifying a resource from a plurality of accessible resources," and claim 10 recites "each node identifying a corresponding resource." Of the three challenged independent claims, only claim 1 recites duration information expressly, i.e., "said step of creating further comprises the step of providing an interactively variable *duration information*, representing the duration within which a corresponding content to said resource is being displayed." Ex. 1001, 18:39. The *Microsoft* court, in construing "show structure of nodes," recognized that claims 10 and 37 lack an express durational reference and, additionally, have dependent claims that add separate durational requirements. Ex. 1023, 6. Nevertheless, the *Microsoft* court reasoned that "all of the independent claims contain the limitation that the content 'automatically' be displayed or delivered to the user, and [Patent Owner] provides no satisfactory answer as to how the 'show structure' would accomplish this absent a durational component associated with each 'node.'" *Id.* at 7. The *Microsoft* court also found that "[a] review of the specification reveals that the patentee impliedly defined a 'show structure of

nodes' to require a durational element." *Id.* at 7–11 (citing Ex. 1001, 1:16–19, 2:51–55, 3:9–11, 3:26–29, 7:2–20). Referring to Figure 2C, the *Microsoft* court reasoned:

> Because node content is displayed automatically and without user input, it would be inconsistent with the claim to require the user to trigger the transition from node 310 to the five simultaneously displayed nodes as depicted in Figure 2C. Although there must be some user input to begin the show in the first place, the transition from the first node onward should be automatic. Thus, some durational aspect to trigger the transition would be needed.

Id. at 11. The *Microsoft* court concluded: "the Court construes 'show structure of nodes' to require a 'duration for which each node's content is to be displayed by default.'" *Id.*

As to "node," specifically, the *Microsoft* court referred to its explanation for "show structure of nodes" and further stated that "[t]he 'node' is the component that causes a resource to be displayed and is also the only component disclosed as having durational information." *Id.* at 17 (citing Ex. 1001, 3:26–31 ("Each node in the structure includes both an address from which the information may be accessed and an indication of the duration for which the content will be presented. For each node, the method locates the content source, accesses the content and presents it for the indicated duration.")). Thus, the *Microsoft* court agreed with the defendants in that case that a "node" "must include a 'duration for which the resource's content is to be presented by default.'" *Id.* at 16–17.

As noted above, Petitioner acknowledges that the *Microsoft* court issued this construction and that panels of the Board have adopted it in proceedings challenging the '451 patent and its family members. Pet. 7–8. Nevertheless, Petitioner does not contend that the *Microsoft* court erred in its

construction and does not offer an alternative. Instead, Petitioner appears to apply this construction in its arguments. Pet. 14–16.

Accordingly, for purposes of this Decision, we adopt the *Microsoft* court's construction and, specifically, the aspect of that construction that a node must "include[] the duration for which the resource's content is to be presented by default." Ex. 1023, 16.

2. "interactively variable duration information"

> Patent Owner contends that, under the *Microsoft* court's construction, the "interactively variable duration information" limitation requires that the computer end user who is the viewer of the show structure resources must be able to change the default duration time for how long the content of a particular resource is presented *while that content is actually being presented/displayed to the end user pursuant to a show structure*.

Prelim. Resp. 11. Patent Owner observes that the panel in the '081 IPR reached a similar conclusion. *Id.* at 11–13. Petitioner opposes Patent Owner's proposed construction. *See generally* Prelim. Reply.

Because we deny the Petition for other reasons, we do not reach whether the *Microsoft* court's construction requires additional discussion in this proceeding. *See Nidec*, 868 F.3d at 1017; *Vivid Techs.*, 200 F.3d at 803.

C. Obviousness over Shimizu, Benedict, and Fox

Petitioner contends that claims 1–8 would have been obvious over Shimizu, Benedict, and Fox. Pet. 3. For the reasons below, Petitioner has not shown that it is reasonably likely to prevail on this ground.

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

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." 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.[4] *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

1. Overview of Shimizu

Shimizu "relates to a hypertext apparatus for managing hypertext composed of nodes that hold information and of link information representing the relations between the nodes, the apparatus displaying the information from each node in accordance with the link information." Ex. 1003, 1:9–14. Figure 5, reproduced below, illustrates an example:

[4] The record does not include allegations or evidence of objective indicia of nonobviousness.

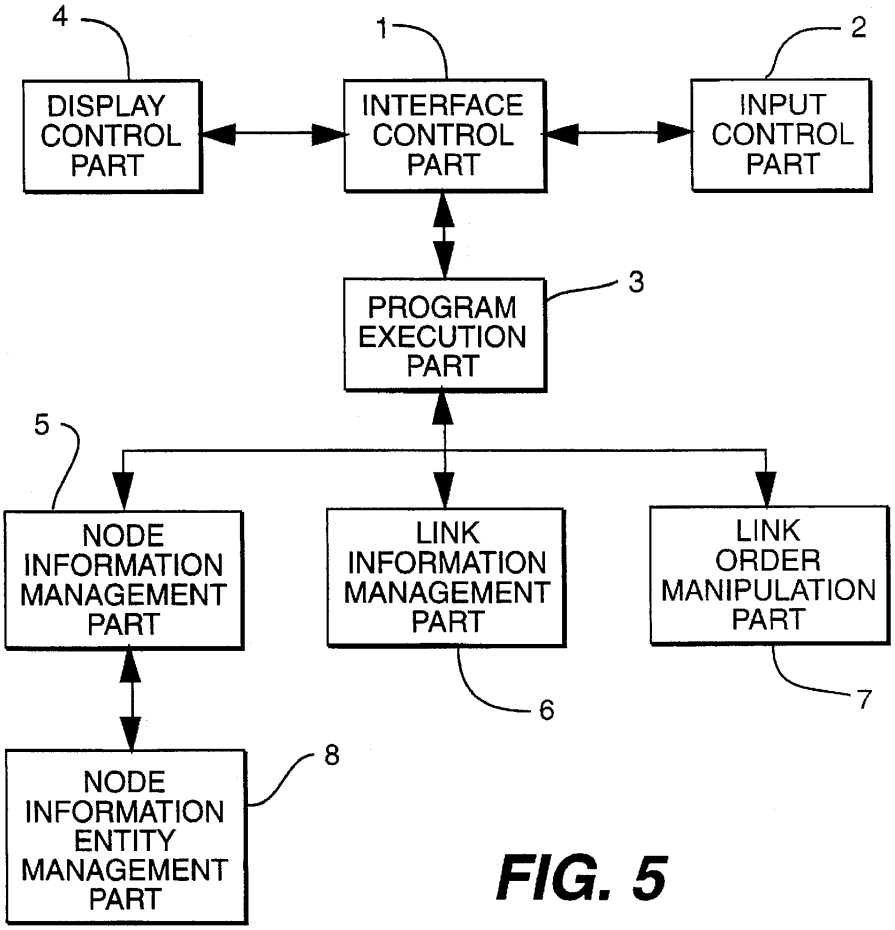


FIG. 5

Figure 5 is a block diagram of the major component parts of a hypertext apparatus. *Id.* at 5:31–33. In particular, Figure 5 shows "processing elements for managing nodes and for putting into an order the link information defining the relations between the nodes." *Id.* at 6:8–11.

Interface control part 1 controls a user interface associated with nodes and links of hypertext, and notifies program execution part 3 of an event whose occurrence may be detected by input control part 2. *Id.* at 6:13–17. Program execution part 3 tells node information management part 5, link information management part 6, and link order manipulation part 7 to generate a node, to generate a link, and to manipulate the link order, respectively. *Id.* at 6:23–27. Display control part 4 displays information in a designated display area. *Id.* at 6:27–29. Node information management

part 5 manages a plurality of node information structures holding the information about each node. *Id.* at 6:30–32.

Figure 6 is reproduced below:

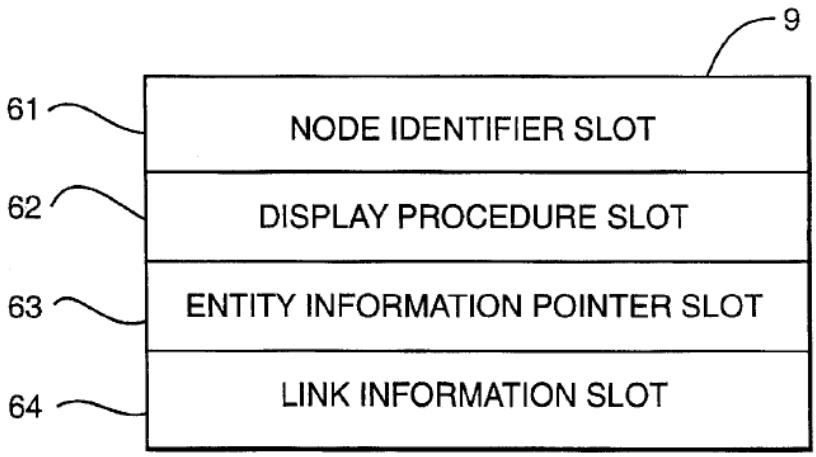


FIG. 6

Figure 6 is a block diagram of node information structure 9 held by node information management part 5. *Id.* at 5:33–35, 6:44–45. Node information structure 9 includes node identifier slot 61 used to identify the node information structure uniquely; display procedure slot 62 for retaining a pointer pointing to a procedure program function used to display the node on a screen; entity information pointer slot 63 for retaining a pointer pointing to the entity information to be displayed by the node; and link information slot 64, which retains a pointer pointing to a link information structure. *Id.* at 6:46–62. The entity information to which the pointer in entity information pointer slot 63 points "may be a character string, image information, motion pictures or sounds." *Id.* at 6:55–59.

Returning to Figure 5, link information management part 6 manages a plurality of link information structures defining the relations between the nodes. *Id.* at 6:32–34. Link order manipulation part 7 changes the order of a

plurality of link information structures 10 referenced by node information management part 5. *Id.* at 6:34–38. "The node information entity management part 8 manages such node information as character strings, images, motion pictures and sounds stored illustratively in primary or secondary storage. The node information is referenced from each node as entity information." *Id.* at 6:38–42.

2. Overview of Benedict

Benedict is a text describing Harvard Graphics® for Windows™, which "is a program designed for creating business presentations." Ex. 1004, 19.[5] Benedict describes using Harvard Graphics® to create a presentation (*id.* at 29), and using a ScreenShow feature to review the presentation (*id.* at 37 ("ScreenShows are on-screen presentations in which the program displays each slide in order. As you view the slides, you can evaluate your presentation from an audience member's point of view.")).

In one feature, "[s]elf-running presentations automate your ScreenShow by displaying the slides for a specified length of time before the next slide appears-pressing a key is not necessary." *Id.* at 134. "To create a self-running presentation, you must set the display time for the slides and create the link that begins the presentation again. You set links and display times in the Edit ScreenShow Effects dialog box." *Id.*

Figure 17.1 of Benedict is reproduced below:

[5] We use the pagination added by Petitioner to the lower-right corner of Benedict's pages.

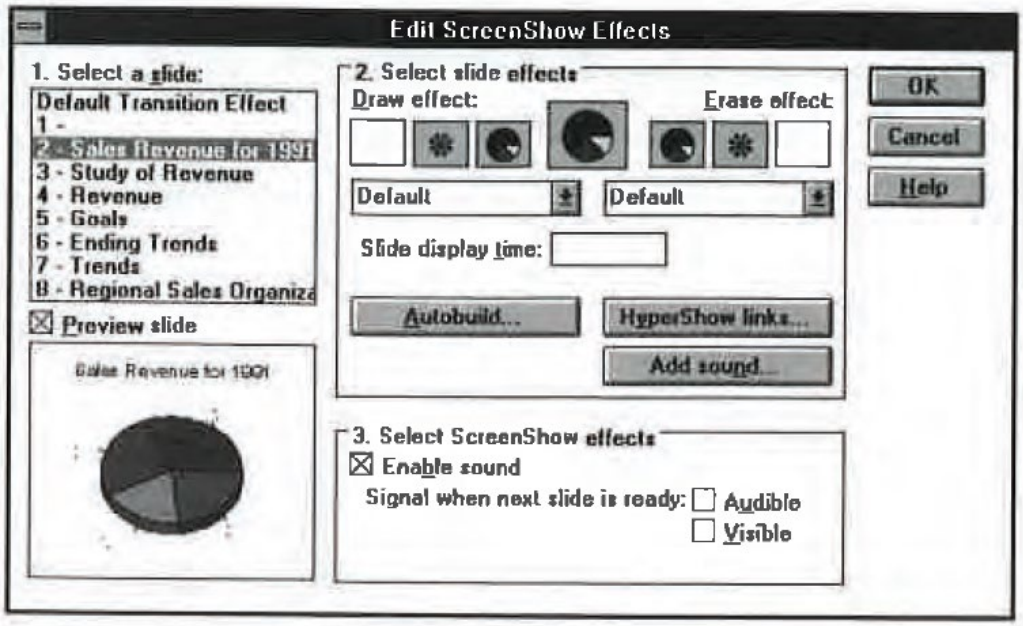


Figure 17.1 is a picture of the Edit ScreenShow Effects dialog box. *Id.* at 120. Benedict provides instructions on setting transition effects in a ScreenShow using this dialog box, including "Choose ScreenShow from the File menu" and "Choose Edit ScreenShow Effects from the pop-up menu." *Id.* at 119–20. Figure 17.1 depicts a "Slide display time" field. According to Benedict,

> you . . . can use the Edit ScreenShow Effects dialog box to set a display time for a slide. The display time determines how long a slide remains on-screen if you do not press a key to move to the next slide. When you select a slide in the Select a slide: list box, the current display time for the slide appears in the Slide display time: text box.
>
> The default for the time is blank because Harvard Graphics continues to display the slide until you press a key. You can set a display time, however, by typing a time in the Slide display time: text box. You can enter the time in seconds or in minutes and seconds separated by a colon. Entering 23, for example, sets the display time to 23 seconds; entering 1:30 sets the display time to 1 minute and 30 seconds.

Id. at 121.

3. Overview of Fox

Fox is a textbook "for people who want to learn about what the Web is, how to access it, and how to navigate around using a number of popular tools." Ex. 1005, 26.[6] It describes "[a] toolbox and guide for artists, advertisers, marketers, programmers, or professional 'webspinners' who want to develop really cool stuff to put on the Web." *Id.* at 27. Fox includes discussions of navigating web pages using hypermedia links, and the use of universal resource locators (URLs). *Id.* at 44–49, 324, 332–33.

4. Analysis of Claims 1–8

Claim limitation 1[a] recites "creating a show structure of nodes, each node identifying a resource from a plurality of accessible resources." Petitioner contends that "Shimizu discloses a system for defining a set of hypertext nodes and their relationships to other nodes." Pet. 11 (citing Ex. 1003, 6:30–35). Petitioner contends that Shimizu's hypertext nodes are the claimed "nodes" and that the relationships among the hypertext nodes, shown in Shimizu's Figures 9 and 10, teach an arrangement of nodes corresponding to the claimed "show structure of nodes." *Id.* at 11–12 (citing Ex. 1003, 6:31–35, 7:51–8:5).

As noted above, the *Microsoft* court construed "node" to mean "an identifier of a resource that includes an address to the resource and the duration for which the resource's content is to be presented by default." Ex. 1023, 16. As to whether Shimizu's hypertext node includes an address to a resource, Petitioner observes that Shimizu's node information is stored

[6] We use the pagination added by Petitioner to the lower-right corner of Fox's pages.

in node information structure 9 shown in Shimizu's Figure 6 and argues that entity information pointer slot 63 holds a pointer to the content resource associated with the node. Pet. 13–14 (citing Ex. 1003, 5:55–59, 7:1–3, 8:54–59). According to Petitioner, "[w]ith respect to '**node**,' it would have been obvious that entity information pointer slot **63** stores '*an identifier of a resource that includes an address to the resource*,' because it provides a pointer identifying the location of the content resource associated with the node." *Id.* at 15 (citing Ex. 1002 ¶ 114) (color emphasis omitted).[7]

Petitioner acknowledges that "[t]he prior litigation constructions above state that a show structure of nodes '*specifies the duration of any display*,' and that a node includes '*the duration for which the resource's content is to be presented by default*.'" Pet. 16. Petitioner cites Shimizu for a showing of duration information and Benedict for a teaching that duration information can be changed by a user:

> Shimizu discloses a default display time, i.e., a "predetermined" time or interval in which node content is displayed before proceeding to the next node. (Shimizu, 3:9–16, 5:11–14 ("This makes it possible to build with ease an application program illustratively causing the display of the nodes to be switched in a specific order and at predetermined intervals.").) But Shimizu does not appear to disclose whether the predetermined intervals can be changed by a user. But this would have been obvious in further view of **Benedict**.

Id.; *see also id.* at 18 ("As noted, Shimizu itself already discloses displaying node content for a 'predetermined' time or interval before switching to the

[7] Patent Owner challenges whether Shimizu teaches a node with "an identifier that includes an address to the resource," under its proposed construction of this limitation. Prelim. Resp. 37–44. Because we deny the Petition for other reasons, we do not reach whether Shimizu teaches this aspect of the *Microsoft* court's construction of "node."

next node. (Shimizu, 3:9–16, 5:11–14.). Under the proposed combination, the content resources of a node would have been displayed for a predetermined (default) interval as disclosed in Shimizu, which the user could have changed as described in Benedict.").

Neither of the passages in Shimizu cited by Petitioner (Ex. 1003, 3:9–16, 5:11–14) describes the hypertext nodes as including the predetermined times or predetermined intervals (what Petitioner argues is the duration). As Patent Owner argues, "even if these 'predetermined times' or 'predetermined intervals' could be considered relevant default duration parameters, the Petition fails to prove that they would be **included within Shimizu's hypertext nodes**—i.e., the putative claimed 'nodes' —as the governing claim construction expressly requires." Prelim. Resp. 45; *see also id.* at 58–59 ("[T]he passages relied on do not provide any specifics as to *how* duration information would be implemented. Instead, they are merely speculative and aspirational statements, postulating only about what is 'possible.' . . . [I]t is not sufficient for Shimizu to simply teach a time interval between nodes. Rather, . . . **the node** itself must '**include** . . . **the duration** for which the resource's content is to be presented by default.' The Petition fails to provide any argument or evidence demonstrating that the described predetermined intervals are included in Shimizu's nodes." (quoting Ex. 1023, 16 (emphasis Patent Owner's))).

Patent Owner further argues that, "[i]f anything, Petitioner's cited passages appear to suggest to the contrary that these ostensible default duration parameters would instead be features of the application programs used for managing Shimizu's alleged show structures." *Id.* at 45; *see also id.* at 59 ("[T]he passages Petitioner relies on teach only that the 'predetermined time' would be associated with the **application program**

used to display the nodes."). We agree with Patent Owner. In its Summary of the Invention, Shimizu describes "mak[ing] it possible to build with ease an *application program* illustratively *causing the display of the nodes to be switched* in a specific order and *at predetermined intervals*." Ex. 1003, 5:11–14 (emphases added). Here, Shimizu's disclosure is more consistent with the predetermined intervals being included in the application program, rather than the hypertext nodes. Similarly, in its Description of the Related Art, Shimizu describes "mak[ing] it possible to create an *application program* that may be displayed on the screen by reading, from primary or secondary storage and within a predetermined time, the node information held by the nodes that are linked sequentially starting from a particular node." *Id.* at 3:12–16 (emphasis added). This passage, too, is better read as disclosing that the predetermined times are included in the application program, rather than the hypertext nodes. Neither of Petitioner's cited passages states that the hypertext nodes include predetermined intervals/times.

We note that, in its reasons to combine Shimizu and Benedict, Petitioner further argues that "Shimizu also suggests the ability to vary the display duration between nodes by explaining that '[i]t is also possible to build with ease a system for arranging information that emphasizes temporal relations between nodes (e.g. chronological tables).'" Pet. 18–19 (quoting Ex. 1003, 9:66–10:2). Immediately preceding Petitioner's cited passage, however, Shimizu states:

> As described, the hypertext apparatus of the invention offers a user interface capable of putting into a desired order the links between the nodes to be managed and of manipulating the established link order. This makes it easy to create illustratively an application program allowing the display of

> node contents to be switched in a desired order and at predetermined intervals on the hypertext apparatus.

Ex. 1003, 9:60–66. Consistent with Petitioner's other cited passages, Shimizu, here, is better read as describing an application program including chronological tables with temporal relations/predetermined intervals. In any case, Petitioner does not provide persuasive argument or evidence to show that Shimizu should, instead, be read as describing hypertext nodes that include predetermined times, predetermined intervals, or temporal information. We have analyzed Mr. Schmandt's testimony, and he provides no meaningful additional information as to why Shimizu should be read as Petitioner argues. Ex. 1002 ¶¶ 117, 119–126.

Moreover, in testimony not cited by Petitioner, Mr. Schmandt admits that "Shimizu does not appear to disclose further details about how duration information is specified or stored within its system, or whether such intervals between nodes can be changed." Ex. 1002 ¶ 118. This undermines Petitioner's position that Shimizu's hypertext nodes include the alleged duration information. In additional testimony cited by, but not explained by, Petitioner, Mr. Schmandt testifies:

> In a real-world implementation of the proposed combination, for example, the display time could have been specified within the node information structure 9 of Shimizu. I note that node information structure 9 in Shimizu also contains display procedure slot 62 (Fig. 6), which points to "a procedure program function used when the node in question is to be displayed on the screen." (Shimizu, 6:52–55.) Shimizu thus contemplates that node information structure 9 may contain information about how the node will be displayed to the user, and as such, it would have been obvious that durational information could also have been included as part of node information structure 9. This durational amount could have

> been a default display time specified by the user, or a display time specific to the node in question, as explained above.
>
> ***
>
> Shimizu itself clearly contemplates the ability to customize the display of nodes, and as explained above, node information structure 9 (Fig. 6) includes display procedure slot 62 which points to a program function or procedure used to display the node content, thus making clear that node information structure 9 can hold information about how the node will be displayed. (Shimizu, Fig. 6, 6:52–55.)

Id. ¶¶ 122, 126. Mr. Schmandt's testimony that Shimizu would need to be modified for its hypertext nodes to include the alleged duration information is strong evidence that Shimizu does not disclose hypertext nodes that include duration information.

We also note that Mr. Schmandt's testimony quoted above (from Ex. 1002 ¶ 122) suggests that the predetermined intervals/times could be included in the procedure program function to which display procedure slot 62 points, rather than the hypertext node. Although Petitioner does not argue that this is the case, Mr. Schmandt's testimony is additional evidence that Shimizu's predetermined intervals/times are included in structure other than hypertext nodes. *See also* Ex. 1003, 6:52–55.

We do not understand Petitioner to argue that a skilled artisan would have found in Benedict, rather than Shimizu, nodes that include duration information. As noted above, "[u]nder the proposed combination, the content resources of a node would have been displayed for a predetermined (default) interval as disclosed in Shimizu, which the user could have changed as described in Benedict." Pet. 18. As Patent Owner argues, "Petitioner (correctly) does *not* allege that Benedict discloses nodes consistent with the district court's claim construction or any other teachings

of the '451 Patent, or even content derived from a plurality of resources." Prelim. Resp. 57 (citing Pet. 10). In any case, the evidence Petitioner presents as to Benedict would not support an argument that Benedict teaches nodes including duration information.

Petitioner argues that Benedict discloses that a user can view a ScreenShow, which displays slides in a sequential order, and that a user can customize the display of the presentation by entering a display time for a slide in a field of the Edit ScreenShow Effects dialog box of Figure 17.1 (reproduced above). Pet. 16–17 (citing Ex. 1004, 37, 120–23). Petitioner argues that Benedict shows allowing a user to create a self-running presentation that advances to a next slide after a specified period. *Id.* at 17–18 (citing Ex. 1004, 134). Petitioner does not argue here that Benedict teaches nodes that include duration information. We have reviewed Petitioner's citations, and do not find any description in Benedict explaining how the data pertaining to a Harvard Graphics® ScreenShow are organized. Ex. 1004, 37, 120–23, 134. We also have reviewed Mr. Schmandt's testimony, which largely copies the arguments in the Petition, without adding to them materially. Ex. 1002 ¶¶ 119–121. Mr. Schmandt does not contend that, or explain why, Benedict should be read to teach nodes that include duration information.

Petitioner's remaining arguments are directed to why a skilled artisan would have used Benedict to improve or enhance Shimizu to allow the user to adjust Shimizu's time intervals and whether the artisan would have been successful. Pet. 18–19 (citing Ex. 1002 ¶¶ 123–126). Petitioner does not argue here (and Mr. Schmandt does not testify) that Benedict teaches a node that includes duration information.

Petitioner also states that the duration "concepts are related to 1[c], separately covered below, reciting '**interactively variable duration information**.'" Pet. 16. Thus, we consider whether Petitioner's arguments for claim limitation 1[c] remedy the above-noted deficiencies in Petitioner's showing for claim limitation 1[a]. In its analysis of claim limitation 1[c], Petitioner seeks to show that Shimizu and Benedict teach "interactively variable duration information." Pet. 25. According to Petitioner, "[u]nder the Shimizu-Benedict combination, each node would have included a display time that could have been interactively varied by the user – under two separate theories." *Id.* (citing Ex. 1002 ¶¶ 145–147).

Under its first theory, Petitioner argues that Benedict teaches that "the user can change the display time for one or more nodes using the ScreenShow Effects feature," and that

> Under the proposed combination, therefore, the duration information for a node (which specifies how long its content resources will be displayed) can be interactively varied by a user. The user for purposes of this technique would be the user creating or editing the presentation, who could have been the same user viewing the presentation.

Id. at 25–26 (citing Ex. 1002 ¶¶ 120–121, 145). Mr. Schmandt largely copies Petitioner's argument in his testimony. Ex. 1002 ¶ 145. Neither Petitioner nor Mr. Schmandt explains what corresponds to a node in Benedict or explains why Benedict should be read as teaching nodes. Under Petitioner's first theory, "the [interactively variable duration] parameter corresponds to the display time advancing to the next node, which takes the form of a predetermined (default) value as disclosed in Shimizu, which the viewer can change as disclosed in Benedict." Pet. 27. Here, Petitioner does

not show that Shimizu teaches nodes that include duration information and does not show, or appear to contend, that Benedict supplies that teaching.

As to its second theory, Petitioner argues that "Patent Owner in the pending litigation appears to be taking the position that [claim limitation 1[c]] is satisfied by a user's ability to skip to another node during display of node content." Pet. 26–27 (citing Ex. 1029 ¶ 27). "Petitioner does not concede that this functionality satisfies the claim, but even if it did, a user viewing the content resource for a node under the proposed combination can simply press a button during display of content to immediately advance to the next node." *Id.* at 27 (citing Ex. 1004, 121, 124). Under this theory, "the user in the proposed combination could have shortened the display duration by immediately advancing to the next node by pressing a button." *Id.* (citing Ex. 1002 ¶ 146). According to Petitioner, under this second theory, "to the extent the claim were construed as encompassing this functionality, the [interactively variable duration] parameter corresponds to the amount of time the software waits when displaying a current node before automatically advancing to the next node." *Id.* at 27–28 (citing Ex. 1002 ¶¶ 124–125). As with its first theory, Petitioner's arguments for its second theory do not show that Shimizu teaches nodes that include duration information and does not show, or appear to contend, that Benedict supplies that teaching.

For these reasons, Petitioner has not shown sufficiently that claim 1 would have been obvious over Shimizu, Benedict, and Fox.[8] Claims 2–8

[8] Petitioner cites Fox "[i]n the event Patent Owner argues that the claimed show structure requires resources be identified by URLs, or otherwise argues that Shimizu does not sufficiently disclose each node '**identifying a resource from a plurality of accessible resources**.'" Pet. 19. Petitioner does not contend that Fox remedies the above-noted deficiencies with Shimizu and Benedict. *Id.* at 20–22.

depend from claim 1. Petitioner's argument and evidence for claims 2–8 (Pet. 28–35) do not remedy the above-noted deficiencies in Petitioner's allegations for claim 1. Accordingly, Petitioner has not established that there is a reasonable likelihood that it would prevail in showing that claims 1–8 would have been obvious over Benedict, Shimizu, and Fox.

D. Remaining Obviousness Grounds

1. Obviousness of claims 10–12 over Shimizu, Benedict, Fox, and Sagman

Petitioner argues that independent claim 10 and its dependent claims 11 and 12 would have been obvious over Shimizu, Benedict, Fox, and Sagman. Pet. 35–46. Independent claim 10 recites "creating a show structure of nodes, each node identifying a corresponding resource," which the *Microsoft* court has construed the same as the similarly worded recitation of claim limitation 1[a]. Ex. 1023, 2–3, 16–17. Petitioner incorporates its analysis for claim limitation 1[a] for this aspect of claim 10. Pet. 40. Claim 11 depends from claim 10 and includes a limitation similar to claim limitation 1[c]. Petitioner incorporates its analysis of claim limitation 1[c] for claim 11. *Id.* at 45. For the same reasons given above for claim 1, Petitioner does not show that Shimizu and Benedict teach a node "that includes . . . the duration for which the resource's content is to be presented by default," as the *Microsoft* court has construed "node." Ex. 1023, 16. Petitioner does not allege that Fox or Sagman remedy this deficiency. Accordingly, Petitioner has not established that there is a reasonable likelihood that it would prevail in showing that claims 10–12 would have been obvious over Benedict, Shimizu, Fox, and Sagman.

2. Obviousness of claims 13–20 over Shimizu, Benedict, Fox, Sagman, and Filepp

Claims 13–20 depend indirectly from claim 10. Petitioner's argument and evidence for claims 13–20 (Pet. 46–57) do not remedy the above-noted deficiencies in Petitioner's allegations for claim 10. Accordingly, Petitioner has not established that there is a reasonable likelihood that it would prevail in showing that claims 13–20 would have been obvious over Benedict, Shimizu, Fox, Sagman, and Filepp.

3. Obviousness of claims 37 and 38 over Shimizu, Benedict, Fox, and Robertson

Petitioner argues that independent claim 37 and its dependent claim 38 would have been obvious over Shimizu, Benedict, Fox, and Robertson. Pet. 57–71. Independent claim 37 recites "creating a . . . show structure of nodes, each node identifying a resource from a plurality of accessible resources," which the *Microsoft* court has construed the same as the similarly worded recitation of claim limitation 1[a]. Ex. 1023, 2–3, 16–17. Petitioner incorporates its analysis for claim limitation 1[a] for this aspect of claim 37. Pet. 58.

For the same reasons given above for claim 1, Petitioner does not show that Shimizu and Benedict teach a node "that includes . . . the duration for which the resource's content is to be presented by default," as the *Microsoft* court has construed "node." Ex. 1023, 16. Petitioner does not allege that Fox or Robertson remedy this deficiency. Accordingly, Petitioner has not established that there is a reasonable likelihood that the it would prevail in showing that claims 37 and 38 would have been obvious over Benedict, Shimizu, Fox, and Robertson.

4. Obviousness of claim 9 over Shimizu, Benedict, Fox, Robertson, and Sagman; obviousness of claim 21 over Shimizu, Benedict, Fox, Sagman, Filepp, and Robertson

Claim 9 depends indirectly from claim 1. Claim 21 depends indirectly from claim 10. Petitioner's argument and evidence for claims 9 and 21 (Pet. 71–76) do not remedy the above-noted deficiencies in Petitioner's allegations for claim 1. Accordingly, Petitioner has not established that there is a reasonable likelihood that it would prevail in showing that claim 9 would have been obvious over Shimizu, Benedict, Fox, Robertson, and Sagman; or that claim 21 would have been obvious over Shimizu, Benedict, Fox, Sagman, Filepp, and Robertson.

III. DISCRETIONARY DENIAL UNDER 35 U.S.C. §§ 314(A)

Patent Owner contends that we should deny the Petition under *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 (PTAB Mar. 20, 2020) (precedential), because the parallel litigation will resolve the patentability issues prior to our deadline for a final written decision. Prelim. Resp. 16–24. Because we deny the Petition on the merits, we do not reach whether we should exercise our discretion to deny the Petition under *Fintiv*.

IV. JURISDICTION

Patent Owner states that "[t]he '451 Patent expired long before the Petition was filed," and that "[w]ith the expiration of the patent, the Board ceased to have jurisdiction over the '451 Patent." Prelim. Resp. 16. We disagree with Patent Owner and conclude that jurisdiction is consistent with our statutory authority in view of Supreme Court and Federal Circuit precedent, and USPTO regulations.

Patent Owner grounds its argument on the Supreme Court's pronouncement that "patents are public franchises that the Government grants to the inventors of new and useful improvements." Prelim. Resp. 14 (quoting *Oil States Energy Servs., LLC v. Greene's Energy Grp., LLC*, 138 S. Ct. 1365, 1373 (2018)). According to Patent Owner, "so long as the public franchise exists, the [U.S. Patent and Trademark Office] may have jurisdiction to amend and cancel the claims of the patent (e.g., via *inter partes* review)." *Id.* at 14–15. But "[w]hen a patent expires," Patent Owner says, "the public franchise ceases to exist and the franchisee (e.g., the patent owner) no longer has the right to exclude others." *Id.* at 15. Patent Owner reasons that, after the patent expires, "[a]t most, the franchisee may be entitled to collect damages" and thereby that "[e]xpiration removes the patent from the [Office's] jurisdiction and returns it to the sole jurisdiction of the Article III courts, which have exclusive authority to govern claims for damages." *Id.*

In *Oil States*, the Supreme Court also explained that "[i]nter partes review is 'a second look at an earlier administrative grant of a patent." *Oil States*, 138 S. Ct. at 1374 (quoting *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144 (2016)). Other panels of the Board have relied on this statement in concluding that the Board has jurisdiction over expired patents in *inter partes* review proceedings. *See Apple, Inc. v. Gesture Tech. Partners, LLC*, IPR2021-00922, Paper 10 at 17–18 (PTAB Nov. 29, 2021); *Apple, Inc. v. Gesture Tech. Partners, LLC*, IPR2021-00921, Paper 24 at 36–38 (PTAB Dec. 5, 2022).

Patent Owner criticizes such reliance because, in *Oil States*, the Supreme Court "emphasize[d] the narrowness of [its] holding" as addressing "only the precise constitutional challenges that Oil States raised." Prelim.

Resp. 15 (quoting *Oil States*, 138 S. Ct. at 1379 (alterations by Patent Owner)). According to Patent Owner, "the 'precise constitutional challenge' did not involve an expired patent as is the case here, and the Supreme Court has yet to address the PTAB's jurisdiction to conduct inter partes review of expired patents." *Id.* But even if Patent Owner is correct that the Supreme Court has not specifically addressed whether the Board has jurisdiction over expired patents, that fact does not warrant discounting the logical consequences of what the Supreme Court has decided.

This is particularly so because the Court provided context for its statement, specifically identifying the types of constitutional questions it recognized as left unaddressed by explaining that its "decision should not be misconstrued as suggesting that patents are not property for purposes of the Due Process Clause or the Takings Clause." *Oil States*, 138 S. Ct. at 1379. In addition, we note that the Supreme Court explicitly recognized that "[t]he America Invents Act replaced inter partes reexamination with inter partes review," and that *inter partes* reexamination has regularly considered expired patents. *Oil States*, 138 S. Ct. at 1371; *see generally In re Rambus, Inc.*, 753 F.3d 1253, 1255–56 (Fed. Cir. 2014) (discussing procedures for *inter partes* reexamination of expired patents).

The Federal Circuit has also affirmed the Board's determination with respect to expired claims in *inter partes* review. *See, e.g.*, *Wasica Fin. GmbH v. Cont'l Auto. Sys., Inc.*, 853 F.3d 1272, 1279 (Fed. Cir. 2017) (noting that '[t]he Board construes claims of an expired patent in accordance with *Phillips* . . . [and] [u]nder that standard, words of a claim are generally given their ordinary and customary meaning')"). This is consistent with our contemporaneous interpretation of our regulations as demonstrating that expired patents are properly considered to be within our jurisdiction. *See*

37 C.F.R. § 42.100(b); *see also, e.g.*, 87 Fed. Reg. 51,341 (Oct. 11, 2018) (Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board)[9] ("The claim construction standard adopted in this final rule also is consistent with the same standard that the Office has applied in interpreting claims of expired patents and soon-to-be expired patents.").

Furthermore, the statutes governing *inter partes* review do not limit them to unexpired patents. *See* 35 U.S.C. §§ 311(b), 311(c), 315; *see also Sony Corp. v. Iancu*, 924 F.3d 1235, 1239–41 (Fed. Cir. 2019) (affirming that a case or controversy before the PTAB existed when a patent was expired; articulating the importance of the Board's review of expired patents since expired patents can be asserted for past infringement).

Although none of these factors alone is dispositive, they are collectively consistent with the Board's jurisdiction in *inter partes* reviews extending to cover expired patents. More particularly, Patent Owner does not adequately explain why the Board's authority to take "a second look at an earlier administrative grant of a patent" ends when the patent term expires even though the rights granted by the patent are not yet exhausted. We accordingly disagree that the Board lacks jurisdiction over expired patents.

V. CONCLUSION

For the foregoing reasons, we decline to institute an *inter partes* review of the '451 patent.

[9] Available at https://www.federalregister.gov/d/2018-22006/p-13.

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that pursuant to 35 U.S.C. § 314(a), an *inter partes* review is denied as to claims 1–21, 37, and 38 of the ’451 patent.

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