

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SONY CORPORATION, SONY MOBILE COMMUNICATIONS (USA)  
INC., SONY MOBILE COMMUNICATIONS AB, and SONY MOBILE  
COMMUNICATIONS INC.,  
Petitioner,

v.

CREATIVE TECHNOLOGY LIMITED,  
Patent Owner.

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Case IPR2016-01407  
Patent 6,928,433 B2

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Before THOMAS L. GIANNETTI, PATRICK M. BOUCHER, and  
MELISSA A. HAAPALA, *Administrative Patent Judges*.

HAAPALA, *Administrative Patent Judge*.

FINAL WRITTEN DECISION  
*35 U.S.C. § 318(a) and 37 C.F.R. § 42.73*

Sony Corporation, Sony Mobile Communications (USA) Inc., Sony Mobile Communications AB, and Sony Mobile Communications Inc. (collectively, “Petitioner”) filed a Petition pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 2, 3, 5, 7, and 17–28 of U.S. Patent No. 6,928,433 B2 (“the ’433 patent”). Paper 2 (“Pet.”). Applying the standard set forth in 35 U.S.C. § 314(a), we granted Petitioner’s request and instituted an *inter partes* review of all challenged claims. Paper 13 (“Dec.”).

During the trial, Patent Owner timely filed a Response (Paper 19, “PO Resp.”), to which Petitioner timely filed a Reply (Paper 25, “Reply”). An oral hearing was held on August 29, 2017, and a copy of the transcript was entered into the record. Paper 43 (“Tr.”).

We have jurisdiction under 35 U.S.C. § 6. This Decision is a Final Written Decision under 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73 as to the patentability of the claims on which we instituted trial. Based on the record before us, we determine that Petitioner has shown, by a preponderance of the evidence, that claims 2, 3, 5, 7, and 17–28 of the ’433 patent are unpatentable.

## I. BACKGROUND

### A. *The ’433 Patent (Ex. 1001)*

The ’433 patent was the subject of an *inter partes* reexamination that resulted in the cancellation of claims 1, 4, 6, and 8–16, and the addition of new claims 17–28. Ex. 1002.

The ’433 patent describes a user interface for a portable player that plays files stored in memory, such as audio files. Ex. 1001, 3:53–55. The content may be organized into a hierarchy of top-level categories and associated sub-categories. *Id.* at 2:12–29. The hierarchy is displayed on the

device so that a user can traverse the hierarchy to find individual tracks or playlists composed of logical groups of tracks. *Id.* at 3:4–7.

Figure 10 of the '433 patent is reproduced below:

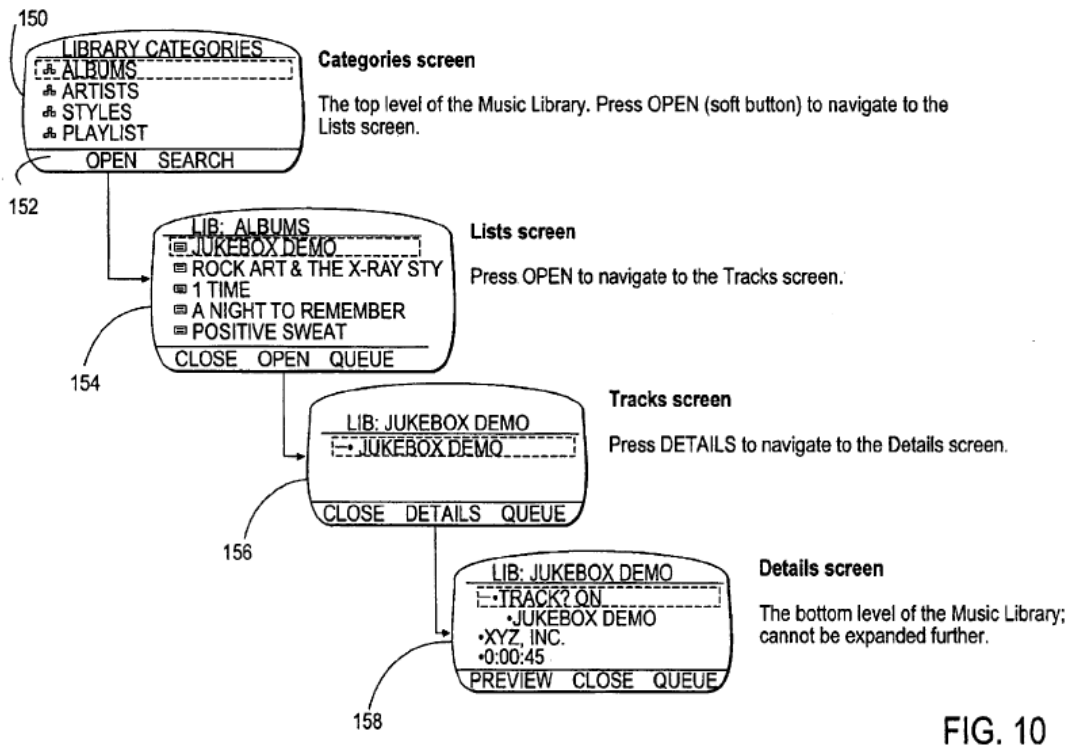


FIG. 10

Figure 10 illustrates a sequence of display screens showing how to navigate to lower levels of the hierarchy. *Id.* at 8:57–58. Categories screen 150 illustrates the display of first-level categories. *Id.* at 8:59–63. Lists screen 154 is displayed as a result of a user opening the Albums category of library catalog screen 150, and shows items within the Albums category. *Id.* at 9:4–9. Tracks screen 156 shows a result of opening an item in the Lists screen 154, and Details screen 158 shows the details of a track selected in Tracks screen 156. *Id.* at 9:10–44.

*B. Illustrative Claim*

Because all of the challenged claims depend from claim 1, which was canceled in the reexamination, we present that canceled claim to illustrate the subject matter:

1. A method of selecting at least one track from a plurality of tracks stored in a computer-readable medium of a portable media player configured to present sequentially a first, second, and third display screen on the display of the media player, the plurality of tracks accessed according to a hierarchy, the hierarchy having a plurality of categories, subcategories, and items respectively in a first, second, and third level of the hierarchy, the method comprising:

selecting a category in the first display screen of the portable media player;

displaying the subcategories belonging to the selected category in a listing presented in the second display screen;

selecting a subcategory in the second display screen;

displaying the items belonging to the selected subcategory in a listing presented in the third display screen; and

accessing at least one track based on a selection made in one of the display screens.

*C. Instituted Grounds of Unpatentability*

Petitioner relies on the following references in its challenges:

Looney	US 5,969,283	Oct. 19, 1999	Ex. 1009
Proehl	US 6,118,450	Sept. 12, 2000	Ex. 1011
Johnson	US 5,798,921	Aug. 25, 1998	Ex. 1012
Birrell	US 6,332,175 B1	Dec. 18, 2001	Ex. 1013
Seidensticker	US 6,128,012	Oct. 3, 2000	Ex. 1014

We instituted trial under 35 U.S.C. § 103(a) based on the following combinations of references. Dec. 25.

References	Claims
Birrell and Seidensticker	2, 3, 5, 7
Birrell, Seidensticker, and Proehl	19, 21, 25
Birrell, Seidensticker, Proehl, and Johnson	23, 27
Birrell, Seidensticker, and Looney	17, 18
Birrell, Seidensticker, Proehl, and Looney	20, 22, 26
Birrell, Seidensticker, Proehl, Johnson, and Looney	24 and 28

In support of its contentions, Petitioner submitted declarations by its witness, Benjamin B. Bederson, Ph.D. Exs. 1006, 1020. In response, Patent Owner submitted declarations by its witness, Eric J. Gould Bear. Exs. 2001, 2014. Both experts were cross-examined during the trial, and transcripts of their deposition are in the record. Exs. 2017, 2045 (Bederson depositions); Ex. 1021 (Bear deposition). Additionally, Patent Owner filed a motion for observation on the cross-examination of Dr. Bederson, and Petitioner filed a response. Papers 33, 36.

Patent Owner further submitted a declaration by Tan Shao Mieng, to provide support for its arguments regarding secondary considerations of non-obviousness. Ex. 2015.

#### *D. Related Proceedings*

Patent Owner identifies a number of proceedings in which it has alleged infringement of the '433 patent. *See* Paper 11. These include assertions by Patent Owner against Petitioner in *Creative Tech. Ltd. v. Sony Corp.*, No. 2:16-cv-00263 (E.D. Tex.), which is also identified by Petitioner. Pet. 5. Patent Owner further identifies the following declaratory judgement proceeding involving the patent: *Google, Inc. v. Creative Labs, Inc. and*

*Creative Technology Ltd.*, Case No. 3:16-cv-02628-JST (N.D. Cal.). Paper 11.

Additionally, the parties both state the '433 patent was the subject of a now-terminated investigation at the U.S. International Trade Commission and further identify the following pending appeal of the ITC investigation: *Creative Technology Ltd. v. ITC*, Case No. 16-2715 (Fed. Cir.). Papers 11, 12.

## II. ANALYSIS

### A. *Legal Principles*

A claim is unpatentable under § 103(a) 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.” *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 skill in the art; and (4) objective evidence of non-obviousness, i.e., secondary considerations such as commercial success, long felt but unsolved needs, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). The obviousness inquiry further requires an analysis of “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR*, 550 U.S. at 418 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (requiring “articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)).

*B. Level of Ordinary Skill in the Art*

Based on testimony of its expert, Dr. Bederson, Petitioner asserts a person of ordinary skill in the art would have had at least the equivalent of a bachelor of science degree in computer science or similar subject, or two to three years of experience in designing and implementing user interfaces for portable electronic devices, and additionally asserts more education could substitute for experience, and experience could substitute for formal education. Pet. 10 (citing Ex. 1006 ¶¶ 36–38). Patent Owner’s expert, Mr. Bear, opines that Dr. Bederson has underestimated the experience of a person of ordinary skill. Ex. 2014 ¶ 32. Accordingly, relying on the testimony of Mr. Bear, Patent Owner asserts a person of ordinary skill in the art at the time of the invention of the ’433 patent would have had at least a bachelor’s degree in computer science, cognitive science, computer user interface design, or a similar subject (or equivalent work experience), *and* two to three years of experience in designing user interfaces for consumer electronic devices. PO Resp. 4 (citing Ex. 2014 ¶ 32).

Our decision does not turn on the differences between the definitions, particularly as Mr. Bear testifies that the opinions expressed in his declaration would apply regardless of whether his description is applied or whether Dr. Bederson’s definition is applied. *See* Ex. 2014 ¶ 32. We see no compelling reason to apply the higher level of skill advocated by Patent Owner. Accordingly, we accept the level of skill advocated by Petitioner, with the addition of Mr. Bear’s identification of cognitive science and computer user interface design as additional permissible undergraduate degrees.

*C. Claim Construction*

In an *inter partes* review, claims of an unexpired patent are interpreted using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). In our Institution Decision, we made the following preliminary claim constructions. Dec 5–9.

Claim Term	Construction
“portable media player”	a device capable of being easily and conveniently transported that can play media content, such as audio or video content
“display screen”	a particular set of user interface elements presented on the display of a device

Patent Owner does not address or contest our constructions in its Response; however, Patent Owner’s expert, Mr. Bear, states in his declaration that he applied the constructions by the Board in its Decision on Institution. Ex. 2014 ¶ 41. Petitioner does not address or contest our constructions in its Reply. Accordingly, although we have considered the construction of the terms anew in light of the full trial record, we see no compelling reason to alter our preliminary constructions, and, therefore, adopt them for this Final Written Decision.

*D. Obviousness over Birrell and Seidensticker*

Petitioner challenges claims 2, 3, 5, and 7, which depend from canceled claim 1, as obvious under 35 U.S.C. § 103(a) over Birrell and Seidensticker. Pet. 63–79.

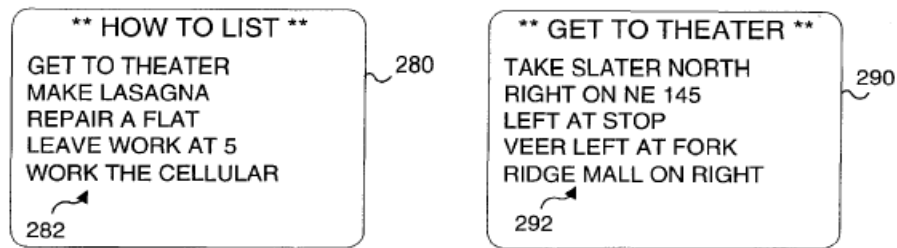


*1. Scope and Content of Birrell*

Birrell describes a portable audio player that plays compressed audio data. Ex. 1013, 3:31–33. A table of contents organizes the compressed audio files in a hierarchy. *Id.* at 4:52–61. In an exemplary embodiment, the top level of the hierarchy contains music genres (e.g., classical, jazz), a second level of the hierarchy contains a listing of CDs within each genre, and a third level of the hierarchy contains the names of the tracks on each CD. *Id.* at 4:50–61. The table of contents can be viewed on the display of the audio player, and the user can select CDs and/or individual tracks to be played by adding them to a “play list” of tracks to be played by the system. *Id.* at 4:66–5:3.

*2. Scope and Content of Seidensticker*

Seidensticker describes a user interface for a portable device that stores and displays data. Ex. 1014, 1:13–15. Data is presented to a user as a hierarchical directory having a plurality of levels, which users can navigate using a first pair of controls (Action/Back) and a second pair of controls (Up/Down). *Id.* at 2:56–3:7. The controls (e.g., buttons) are used to navigate the user through the directory/menu hierarchy such that when the Action button is depressed, the next lower level of the hierarchy is displayed, and when the Back button is depressed, the next higher level of the hierarchy is displayed. *Id.* at 6:44–53. Figures 10 and 11 of Seidensticker are reproduced below:



**FIG. 10**

**FIG. 11**

Figure 10 (left) illustrates an exemplary Table of Contents View display screen that includes a list of action items, such as “Get to Theater.” *Id.* at 4:38–39, 17:62–65. Figure 11 (right) shows an exemplary Records View display screen for the “Get to Theater” action item. *See id.* at 4:40–41. Seidensticker further describes other exemplary menus, including a “Main Menu” with a “Games” option, and a “Games” menu listing a variety of games. *Id.* at 7:1–7, Fig. 6.

### 3. Claim 1 Limitations

The challenged claims all depend from claim 1, which was canceled during reexamination. *See* Ex. 1002; *see also* Ex. 1004, 6249 (Examiner maintaining rejections of claim 1 under 102(b) and 103(a)). Because the challenged claims incorporate the limitations from claim 1, Petitioner must establish the cited references disclose the limitations of that claim, as well as those limitations added by the dependent claims.

#### *a. accessed according to a hierarchy*

The preamble of claim 1 recites, in part, “selecting at least one track from a plurality of tracks . . . the plurality of tracks accessed according to a hierarchy.” In general, a claim preamble gives context to what is recited in the body of the claim and is not construed as a separate limitation, particularly “if it is reasonably susceptible to being construed to be merely

duplicative of the limitations in the body of the claim.” *Symantec Corp. v. Computer Assocs. Int’l, Inc.*, 522 F.3d 1279, 1288–89 (Fed. Cir. 2008).

Petitioner asserts Birrell discloses this limitation through its description that a table of contents 152 organizes compressed files in a hierarchy and “[t]he table of contents 152 can be viewed on the display 118, and the user can select CDs and/or individual tracks to be played.” Pet. 74 (citing Ex. 1013, 4:50–54, 4:66–5:3).

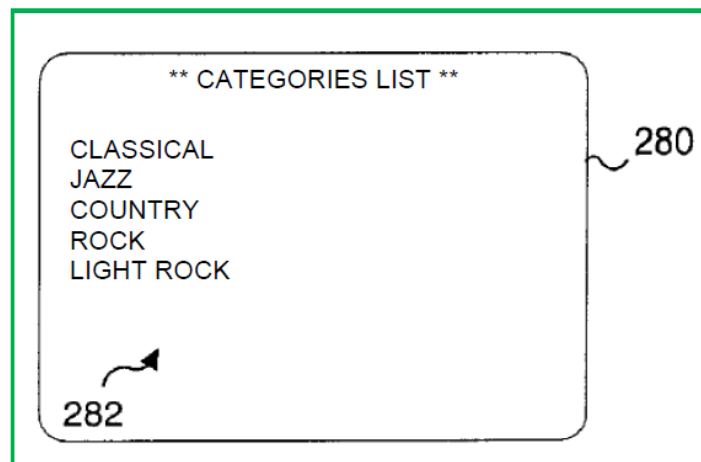
Patent Owner argues Birrell does not provide enough specificity for how the user carries out the function to select songs to be played, and further, that there is no disclosure in Birrell that the content is actually accessed according to a hierarchy because it does not disclose accessing from the table of contents. PO Resp. 5–6. Patent Owner further argues that Seidensticker does not cure the deficiency in Birrell, and that Petitioner does not rely on Seidensticker for the “accessed according to a hierarchy” limitation. *Id.* at 7. Additionally, Patent Owner asserts Seidensticker does not teach its interface is useful for accessing anything outside of its own user interface, but only to organize the text that is part of the user interface itself. *Id.* at 7–8.

We agree with Petitioner (Pet. 14) that the body of claim 1 already sets forth accessing a track by navigating a hierarchical interface through its limitations describing navigation of first, second, and third display screens by selecting “categories,” “subcategories belonging to the selected category,” and “items belonging to the selected subcategory,” and accessing at least one track based on a selection. We discern no meaningful difference between the preamble’s recitation of “accessed according to a hierarchy” and the recitations in the body of claim 1. Nor does Patent Owner present

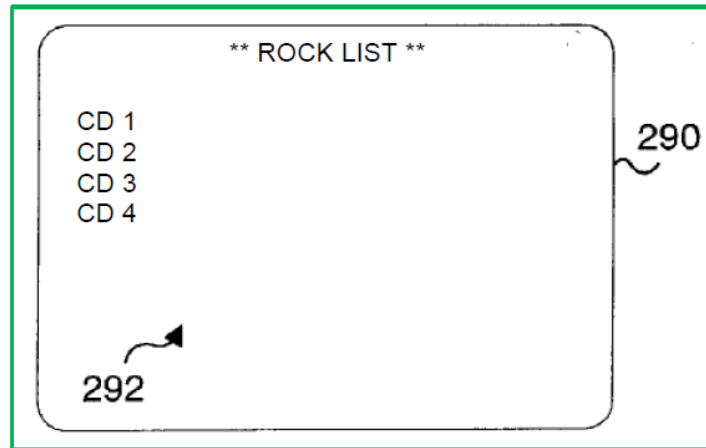
arguments that there is a substantive difference. Therefore, we find the preamble limitation to be merely duplicative of the limitations in the body of the claim, and do not accord it separate patentable weight. Moreover, for the reasons discussed below, we are not persuaded by Patent Owner's arguments of any deficiencies in Petitioner's analysis of the corresponding limitations that appear in the body of the claim.

*b. display screens*

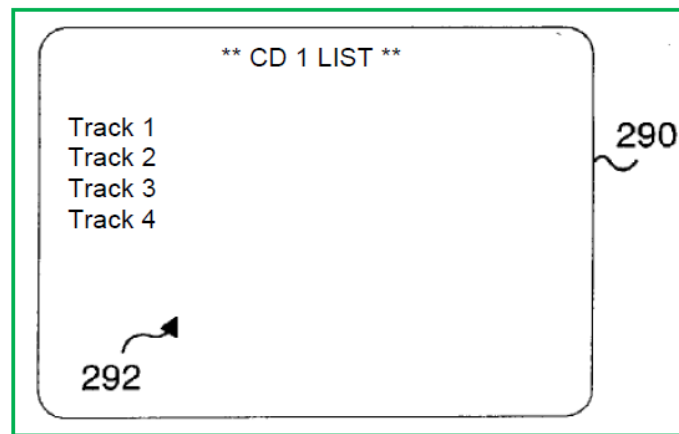
Petitioner asserts combining Seidensticker's approach to navigating a hierarchical menu structure with Birrell's hierarchical table of contents would have led a person of ordinary skill to present three display screens for Birrell's three levels of its table of contents. In this combination, the first display screen would contain a list of music genres, the second display screen a list of CDs within a genre, and the third display screen tracks for a selected CD. Pet. 67–69. Petitioner's examples of such screens are illustrated below:



**First Display Screen**



Second Display Screen



Third Display Screen

Petitioner's examples of first, second, and third display screens are depicted above. In particular, Petitioner and Dr. Bederson assert the display screens represent examples of first, second, and third display screens generated by modifying the hierarchically related screens of Seidensticker's Figures 10 and 11 based on Birrell's discussion of contents of its menu hierarchy. *Id.* at 68; Ex. 1006 ¶ 187. Petitioner further provides a claim chart illustrating how the combination of Birrell and Seidensticker discloses displaying first, second, and third display screens, respectively displaying categories, subcategories, and items. *See* Pet. 72–75.

We are persuaded Petitioner establishes that Birrell's three-level hierarchical table of contents discloses the claimed category, subcategory, and item hierarchy. Pet. 63–64, 74. In particular, we agree Birrell discloses a table of contents that may be organized in three levels: a top level that contains music genres (category); a second level that lists the CDs for a particular genre (subcategory); and a third level that stores the names of the tracks for each CD (item hierarchy). *See* Ex. 1013, 4:52–65.

We are further persuaded by Petitioner's analysis that Seidensticker discloses navigating a hierarchical menu structure through the use of display screens (construed to be "a particular set of user interface elements presented on the display of a device"), with a list of entries for each menu level being presented on a respective screen. Pet. 65–66, 72–74. The cited sections of Seidensticker disclose navigating a hierarchical user interface through an Action button, which takes the user to a selected lower level of the hierarchy and displays the subdirectories and elements for that level, and a Back button which takes the user to a higher or parent level of the display hierarchy. *See* Ex. 1014, 5:13–24, 6:44–53. We agree with Petitioner's analysis that applying the hierarchical user interface of Seidensticker to the hierarchically organized data of Birrell meets the claimed series of displaying three display screens displaying categories, subcategories, and items. *See* Reply 15 (citing Pet. 67–70; Ex. 1006 ¶¶ 196–199).

Patent Owner argues that neither Birrell nor Seidensticker discloses the recited display screens. *See* PO Resp. 8–14. In particular, Patent Owner argues there are numerous ways to present Birrell's table of contents without the use of three screens. *Id.* at 9–12. Patent Owner further asserts nothing in

Seidensticker's description discloses using its interface to subdivide media content into sequentially displayed screens. *Id.* at 13.

We are unpersuaded by these arguments. Patent Owner's arguments attacking the references individually are not persuasive because Petitioner relies on the combined teachings of the references to meet the disputed limitations. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981). To the extent Patent Owner's arguments attack the motivation to combine these references, we address arguments regarding insufficient reason to combine below.

*c. "accessing at least one track based on a selection made in one of the display screens"*

Petitioner relies on the combination of Birrell and Seidensticker to disclose this limitation. *See* Pet. 72–76. We agree with Petitioner that Seidensticker discloses selections made in display screens. Pet. 72–75; *see* Ex. 1014, 2:56–58, 5:8–36. We also agree with Petitioner that Seidensticker expressly discloses its selections can execute an application (i.e., are not used just to display text in its own user interface as Patent Owner asserts in its arguments discussed above for the preamble limitation). Reply 15; *see* Ex. 1014, 9:42–48. And we agree that Birrell discloses accessing a track through its description of a user selecting individual tracks to be played. Pet. 75–76; *see* Ex. 1014, 4:66–5:3. Thus, we agree with Petitioner that the combination of Birrell's selection of an application in a display screen with Seidensticker's disclosure of selection of individual tracks meets the "accessing at least one track" limitation. For the reasons discussed below, we further determine Petitioner provides sufficient reason to combine the references in the proposed manner.

*d. Remaining Limitations of Claim 1*

We have reviewed Petitioner’s analysis of the remaining limitations recited in claim 1 as set forth in its claim chart and the supporting evidence. *See* Pet. 71–76. We are persuaded Petitioner sufficiently establishes the combination of Birrell and Seidensticker discloses these limitations for the reasons set forth by Petitioner. *See id.* For example, we agree with Petitioner that Birrell discloses the recited “portable media player” (construed to be “a device capable of being easily and conveniently transported that can play media content, such as audio or video content”) through its disclosure of a portable audio player. Pet. 71 (citing Ex. 1013, 1:4–6). Patent Owner has not raised arguments against these limitations in its Patent Owner Response; therefore, those arguments are waived. *Novartis AG v. Torrent Pharm. Ltd.*, 853 F.3d 1316, 1330 (Fed. Cir. 2017); *In re Nuvasive*, 842 F.3d 1376, 1381 (Fed. Cir. 2016).<sup>1</sup>

*4. Claims 2 and 3 Limitations*

Claim 2 depends from claim 1 and recites “wherein the accessing at least one track comprises selecting a subcategory in the second display screen and playing a plurality of tracks associated with the selected subcategory.” Patent Owner argues that this limitation requires that the selecting a subcategory in the second screen directly causes the accessing. PO Resp. 34–35. Patent Owner asserts this interpretation is confirmed by the reexamination history of the ’433 patent. *Id.* at 35 (citing Ex. 1004, 6149, 6182, 6236). Petitioner does not contest Patent Owner’s interpretation

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<sup>1</sup> As in *Nuvasive*, the Scheduling Order in this proceeding cautioned Patent Owner that “any arguments for patentability not raised in the response will be deemed waived.” Paper 14, 6.



of this limitation, but asserts that even under Patent Owner's construction, the prior art meets this limitation. Tr. 19.

As discussed *supra* with reference to claim 1, Petitioner adequately identifies the subcategory in the second display screen with Birrell's CDs (second level of hierarchy) and establishes that the Birrell-Seidensticker combination teaches displaying the second subcategory (list of CDs) in the second display screen. *See* Pet. 68, 73–75. Petitioner additionally asserts Birrell discloses that a user can select an entire CD to be played and the user selection is added to a “play list,” which is a queue of tracks to be played by the system. Pet. 77 (citing Ex. 1013, 4:66–5:3). Petitioner also asserts Seidensticker has a Back button to ascend the hierarchy so that a user may navigate to the third screen to display items belonging to the selected category (per claim 1), then back to the second screen to make a selection of a subcategory to play the associated tracks (per claims 2 and 3). *See* Reply 16; *see also* Pet. 73 (discussing the use of the Back button of Seidensticker to navigate through the interface in its mapping of claim 1, from which claim 2 depends). Thus, Petitioner contends that the selection of a CD to be played from the second level of Birrell's table of contents in the Birrell-Seidensticker combination, satisfies all limitations of claim 2.<sup>2</sup> Pet. 77.

Patent Owner contends that Petitioner does not identify a disclosure in Birrell or Seidensticker that describes a selection on the second screen

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<sup>2</sup> Although claims 1 and 2 do not set forth a specific mechanism used to perform either recited “selecting a subcategory in the second display screen,” Petitioner and its expert provide several examples of mechanisms that one of skill in the art would have used to permit both choices, such as separate options or configuring the same button for both purposes. *See* Reply 17, 18; Ex. 1020 ¶¶ 14, 15.

causing a group of tracks to be accessed and also a third display screen to be displayed (as required by claim 1). PO Resp. 37. Patent Owner argues that the use of the “Back Button” fails because neither reference discloses a user interface that can both cause a new display screen to be presented and cause an accessing. *Id.* at 37–39.<sup>3</sup> Patent Owner argues that in Seidensticker, every menu item is *exclusively either*: (i) a menu item for redirecting to another screen with a further set of menu options, *or* (ii) an application or other function-performing menu, *but not both*. *Id.* at 38.

We have reviewed Petitioner’s analysis and the supporting evidence and conclude that Petitioner establishes, by a preponderance of the evidence, that the Birrell-Seidensticker combination satisfies the limitations of claim 2. Specifically, for the reasons described with reference to claim 1’s limitations, we agree with Petitioner that the Birrell-Seidensticker combination teaches a subcategory displayed in a second screen. *See* Pet. 68–69, 76–77. We further agree that Birrell discloses selecting a CD (a subcategory displayed in a second screen) and playing a plurality of tracks associated with the CD (a selected subcategory). *See* Ex. 1013, 4:66–5:3. We also agree that Seidensticker discloses the use of a Back button, which would allow the user to navigate to the third screen to display items as

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<sup>3</sup> We disagree with Patent Owner’s assertion that the “Back Button Theory” was identified only by the Board and not by Petitioner. *See* PO Resp. 37. As pointed out by Petitioner during oral argument (Tr. 22), Petitioner discusses the use of the Back button in multiple places in the Petition. *See e.g.*, Pet. 73, 78–79. Furthermore, our Decision to Institute made explicit the findings we relied on to determine Petitioner established adequately the Birrell-Seidensticker combination teaches the “accessing” limitation recited in claim 2. *See* Dec. 15–16. Patent Owner was given adequate opportunity to respond to this theory, which it did in its Response. *See* PO Resp. 37–38.

recited in claim 1, then back to the second screen to make the selection recited in claim 2. *See* Ex. 1014, 5:21–22. Accordingly, we conclude the combination teaches “accessing at least one track comprises selecting a subcategory in the second display screen and playing a plurality of tracks associated with the selected subcategory.”

We are not persuaded by Patent Owner’s arguments that Seidensticker’s menu items cannot both redirect the user to another screen and execute an application (i.e., cause the recited accessing). *See* PO Resp. 37–38. Patent Owner’s arguments appear to be premised on the assumption that the same menu item must be used in the second display screen both to provide a selection to display subcategory items in a third display screen (as set forth in claim 1) and to provide a selection to play a plurality of tracks associated with a selected subcategory (as set forth in claim 2). But claim 2 is not so limiting. It merely requires that the user be able to select a subcategory to play a plurality of tracks—it does not require that this option be the same option used to display the items in the third display screen.<sup>4</sup> Petitioner persuades us that, in light of the teachings of Birrell and Seidensticker, one of skill in the art would have known how to provide a second display screen that implements both an option to select a second subcategory to display its items in a third screen (claim 1) and an option to select a second subcategory and playing a plurality of tracks associated with

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<sup>4</sup> We further observe that in advocating its proposed construction of claim 2, Patent Owner points us to a portion of the reexamination history. PO Resp. 36 (citing Ex. 1004, 6182). But on the same page that Patent Owner asks us to consider, Patent Owner cites to a portion of the Specification describing that *another* option allows the user to cause any currently selected list of songs to immediately be played. *See* Ex. 1004, 6182 (citing Spec. 9:20–23) (emphasis added).

the selected subcategory (claim 2). *See* Reply 17–18 (citing testimony of Dr. Bederson).

Claim 3 depends from claim 1 and recites “wherein the accessing at least one track comprises selecting a subcategory and adding the tracks associated with the selected subcategory to a playlist.” We have reviewed Petitioner’s analysis and supporting evidence and we are persuaded that for similar reasons as claim 2, and in light of Birrell’s disclosure that a user can select CDs to be added to a playlist (Ex. 1013, 4:67–5:3), the Birrell-Seidensticker combination satisfies the limitations of claim 3. *See* Pet. 78.

Patent Owner relies on the same arguments made with respect to claim 2 for this claim. *See* PO Resp. 34–38. We are not persuaded for the reasons discussed above.

#### *5. Claims 5 and 7 Limitations*

Claim 5 depends from claim 1 and sets forth that the accessing at least one track comprises selecting an item in the third display screen and adding at least one track associated with the selected item to a playlist. Patent Owner does not present a separate argument for this claim.

As described with reference to claim 1’s limitations, we agree with Petitioner that the Birrell-Seidensticker combination discloses displaying items (tracks) in a third display screen. *See e.g.*, Pet. 67–68. Petitioner further asserts Birrell discloses selection of an individual track to be played and adding it to a playlist. *Id.* at 78. We agree. *See* Ex. 1013, 4:66–5:3 (describing a user can select an individual track to be played and that user selections are added to a queue of tracks to be played by the system). Thus, Petitioner persuades us the Birrell-Seidensticker combination discloses the limitations of claim 5.

Claim 7 recites “wherein the accessing at least one track is made after presentation of the third display screen by reverting back to one of the second and first display screens, the second display screen presented sequentially after the third display screen.” Patent Owner does not present a separate argument for this claim. For similar reasons as those discussed *supra* with respect to claim 2, we agree with Petitioner that the Birrell-Seidensticker combination meets the limitations of claim 7. Pet. 78–79. Seidensticker discloses the use of a Back button to revert to a previous screen and Birrell discloses selecting a CD to be played (accessing a track), which can be made from the second display screen in accordance with the Birrell-Seidensticker combination. *See* Ex. 1014, 5:20–23 (describing the Back button takes the user to a next level of the hierarchy); Ex. 1013, 4:66–5:3 (describing a user can select a CD to be played).

#### *6. Reason to Combine*

Petitioner asserts that Birrell and Seidensticker are both portable devices that require navigation of a hierarchical menu structure using a small display screen. Pet. 66. Petitioner asserts Birrell does not disclose the details of displaying or navigating its table of contents and, therefore, a person of ordinary skill in the art would have recognized the need for a compatible user interface. *Id.* at 67; Reply 2. Petitioner contends one of ordinary skill in the art would have found Seidensticker’s approach to navigating a hierarchical menu structure “directly applicable” to Birrell’s table of contents. *Id.* at 67. Petitioner’s expert, Dr. Bederson, testifies that a person of ordinary skill would have recognized Seidensticker’s interface to be a predictable improvement of Birrell. Ex. 1006, ¶ 194.

Patent Owner contends that Petitioner fails to explain adequately why a person of ordinary skill at the time of the invention would have combined Birrell and Seidensticker. PO Resp. 14–34. Specifically, Patent Owner argues Petitioner’s proffered reasons for combining the references are inadequate because the Birrell and Seidensticker devices serve very different purposes, use the hierarchy in different ways, and handle different types of data. *Id.* at 18–22. Patent Owner also argues that because Birrell does not specify what the user interface looks like, one of skill in the art would not conclude that Birrell necessarily discloses a menu hierarchy, which Patent Owner asserts to be a key assumption behind Petitioner’s reason to combine analysis. *Id.* at 23–25. Patent Owner further argues that Petitioner’s reason to combine is deficient because Petitioner’s expert fails to identify a problem solved by the ’433 patent that would have motivated a person of skill in the art to combine Birrell and Seidensticker. *Id.* at 28–31. Additionally, Patent Owner, and its expert, assert the combination would not be predictable because the results of any particular combination is not easily predictable beforehand because success in the field of user interfaces depends on the intangible nature of human psychology and must adjust for users with differing skill levels and past experiences. *Id.* at 32; Ex. 2014 ¶¶ 25–31.

Patent Owner also presents several arguments that Petitioner’s reason to combine analysis is deficient because there would be other ways to display Birrell’s table of contents without practicing claim 1. *See* Prelim. Resp. 15–17, 33–34. In particular, Patent Owner asserts that Petitioner’s expert failed to analyze why Seidensticker’s user interface would be selected to display Birrell’s table of contents, as opposed to alternative methods such as the examples provided by Patent Owner and Mr. Bear. *Id.* at 15–17; Ex.

2014 ¶¶ 54–57. Additionally, Patent Owner contends a person of skill in the art would have been familiar with PJB-100 (the commercial embodiment of Birrell) and, therefore, Petitioner must show why a person of skill in the art would have been motivated to combine Birrell with a different user interface when the PJB-100 already provides a way for the user to navigate the table of contents. Prelim. Resp. 33–34; *see also id.* at 25–28.

We have considered Petitioner’s rationale for why one of ordinary skill in the art would have been motivated to combine Birrell and Seidensticker. We disagree with Patent Owner that the rationale is inadequate. Petitioner persuades us that a person of ordinary skill in the art would have recognized the need in Birrell for a user interface compatible with the hierarchically organized data it describes. Reply 2; *see also* Pet. 67 (“[Birrell] does not expressly disclose the details of displaying ‘selected portions of the table of contents’”). Petitioner also persuades us that one of ordinary skill in the art would have found Seidensticker’s approach to navigating a hierarchical menu structure “directly applicable” to Birrell’s hierarchical table of contents, particularly because Seidensticker expressly contemplates its user interface can be employed on other portable electronic devices. Pet. 66–67; Reply 3; *see* Ex. 1014, 4:54–57; 22:27–35. We are persuaded by the testimony of Petitioner’s expert, Dr. Bederson, that a person of skill in the art would have recognized the combination as a simple, predictable improvement of Birrell to incorporate Seidensticker’s known interface into Birrell to satisfy the lack of an explicitly described interface. Ex. 1006 ¶ 194. We determine this is sufficient articulated reasoning to support the legal conclusion of obviousness. *See KSR*, 550 U.S. at 416

(“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.”).

Although Patent Owner and its expert present arguments that the results of the combination would not be predictable, Patent Owner admits that it did not address any specific difficulties in trying to make or implement the combination. Tr. 44. Rather, its arguments center on the “success” of the user interface. See PO Resp. at 32; Ex. 2014 ¶¶ 25–31. We are unpersuaded by such arguments because a particular combination does not need to be the preferred, or the most desirable, combination described in the prior art in order to provide motivation for the current invention. *In re Fulton*, 391 F.3d 1195, 1200 (Fed. Cir. 2004). Patent Owner does not convince us that combining Birrell and Seidensticker would have been “uniquely challenging or difficult for one of ordinary skill in the art” or “represented an unobvious step over the prior art.” See *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418–19).

Patent Owner’s arguments that the references serve different purposes and handle different types of data are also unpersuasive. We agree with Petitioner that the differences are trivial and do not negate the reasons to combine. Reply 10. As discussed above, Seidensticker expressly states that its interface can be employed on many other types of electronic devices besides a combination pager and data management device. Ex. 1014, 4:54–57, 22:27–35. And contrary to Patent Owner’s arguments that Seidensticker’s hierarchy does not reflect a relationship between items in its menu lines (PO Resp. 20), we agree with Petitioner that Seidensticker describes menus with hierarchical relationships between the items. Reply



11; *accord* Ex. 1014, Fig. 6A, 7:1–9, 12:20–48 (describing games menu option with a list of games for selection). Furthermore, we agree with Petitioner that, contrary to Patent Owner’s assertion, Petitioner’s reasoning for combining the teachings of the references need not be grounded exclusively in the identification of a problem solved by the ’433 patent.<sup>5</sup> Reply 6–7; *see KSR*, 550 U.S. at 420 (“The first error of the Court of Appeals in this case was . . . holding that courts and patent examiners should look only to the problem the patentee was trying to solve.”). Rather, “[u]nder the correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the patent can provide a reason for combining the elements in the manner claimed.” *Id.* As discussed previously, Petitioner identifies adequately the need in Birrell for a user interface compatible with hierarchically organized data.

Finally, we are not persuaded by Patent Owner’s arguments that the rationale is deficient merely because there are other ways to display Birrell’s table of contents. We agree with Petitioner (Reply Br. 4–5) that the existence of other ways to display Birrell’s data is legally irrelevant because the asserted combination need not be the only possible or most desirable combination. *See In re Fulton*, 391 F.3d at 1200. Furthermore, because the claims are challenged under the combination of Birrell and Seidensticker, we also agree with Petitioner that the commercial embodiment of Birrell (PJB-100) is legally irrelevant. *See* Reply Br. 5–6. Patent Owner admits that the

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<sup>5</sup> Because we determine that Petitioner’s reasoning need not be grounded in the problem the patentee was trying to solve, we do not consider Petitioner’s rebuttal evidence (“ISO 9241,” Ex. 1023), proffered to rebut the suggestion the problem of the ’433 patent was not known in the prior art. *See* Pet. 8; Tr. 17.

Birrell reference itself does not disclose a user interface for how to display its table of contents. PO Resp. 40 (“Birrell says nothing about the design of its user interface.”); *see also* Tr. 39. Therefore, we agree with Petitioner’s assertion that a person of skill in the art would have recognized the need for a user interface to display the hierarchically organized data described in Birrell. Reply Br. 2–3. Petitioner satisfies its burden by articulating sufficient reasoning with some rational underpinning for combining the teachings of Birrell with Seidensticker. *See KSR*, 550 U.S. at 418.

For the foregoing reasons, we conclude that it would have been obvious for one of ordinary skill in the art to combine the teachings of Birrell and Seidensticker as Petitioner proposes.

#### 7. *Secondary Considerations*

Patent Owner contends that secondary considerations compel a conclusion of non-obviousness. PO Resp. 57–63. Specifically, Patent Owner asserts that licensing of the ’433 patent to Apple supports a conclusion of non-obviousness. *Id.* at 62–63. Patent Owner further argues there is evidence of industry praise that is reasonably commensurate with the scope of the claims that supports a conclusion of non-obviousness. *Id.* at 58–62.

We first analyze Patent Owner’s licensing evidence. Patent Owner asserts it licensed the ’433 patent to Apple for \$100 million. *Id.* at 62 (citing Exs. 2015, 2016). Patent Owner asserts that, although the license was signed after litigation, the \$100 million license far exceeded any reasonable potential cost to defend an infringement suit. *Id.* at 63. Patent Owner argues the fact that a sophisticated technology company paid such a substantial amount for a license weighs heavily against any finding of obviousness. *Id.*

In order for secondary considerations to be accorded substantial weight, there must be a nexus between the claimed invention and the evidence of secondary considerations. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). The relevant inquiry here is whether there is a nexus between the patent and the licensing activity itself, such that the factfinder can infer that the licensing “arose out of recognition and acceptance of the subject matter claimed” in the patent. *S. Ala. Med. Sci. Found. v. Gnosis S.P.A.*, 808 F.3d 823, 827 (Fed. Cir. 2015) (citation and quotations omitted).

Patent Owner’s evidence insufficiently demonstrates a nexus between its license agreement and the claimed invention of the ’433 patent. Patent Owner did not submit the license itself, but only a press release announcing the license. *See* Ex. 2015. As noted by Petitioner (Reply 27), the license predates the reexamination proceeding that canceled twelve of the sixteen claims, including the only independent claim. *See* Ex. 1002 (reexamination certificate issued Oct. 8, 2012); Ex. 2016 (announcement of Apple license dated Aug. 24, 2006). Patent Owner does not present persuasive evidence that any licensing value arose from recognition of the value of the four dependent claims that survived reexamination, and, therefore does not establish a nexus between the license agreement and the current claims of the ’433 patent. Accordingly, we agree with Petitioner (Reply 26–27) that Patent Owner fails to establish that the license arose out of recognition and acceptance of the claimed subject matter, as opposed to other economic reasons. *See Cole Kepro Int’l, LLC v. VSR Indus., Inc.*, 695 F.App’x 566, 572 (Fed. Cir. 2017). Indeed, the announcement itself indicates evidence of such a business relationship by its statement that “Apple can recoup a portion of its payment if Creative is successful in licensing the patent to

others.” Ex. 2016. We conclude Patent Owner’s licensing evidence has little persuasive weight.

Next, we analyze Patent Owner’s evidence of industry praise. Patent Owner argues that the Nomad Jukebox, which Patent Owner asserts to be the commercial embodiment of the ’433 patent, was extensively praised in the consumer electronics press based on user features recited in the claims of the ’433 patent. PO Resp. 58. Patent Owner presents evidence and testimony in support of its assertion that the Nomad Jukebox is the commercial embodiment of the ’433 patent. *Id.* at 58–59. Patent Owner asserts the Nomad Jukebox was specifically praised due to its implementation of hierarchical navigation (all claims) and accessing songs as a group (claims 2, 3, 17, 18, 20, 22, 24, 26, and 28).<sup>6</sup> Patent Owner supports its assertions with a review by “Xbit laboratories” (Ex. 2007); a review by “MP3newswire.net” (Ex. 2008); two PC Magazine articles (Ex. 2009; Ex. 2011); and a Macworld article (Ex. 2010). *Id.* at 59–61.

In evaluating whether the requisite nexus exists, the identified objective indicia must be directed to what was not known in the prior art. *Novartis AG v. Torrent Pharm. Ltd.*, 853 F.3d 1316, 1331 (Fed. Cir. 2017). Although Patent Owner presents sufficient evidence that Nomad is the commercial embodiment of the ’433 patent, the “hierarchical navigation” feature asserted to be present in “all claims” was known in the prior art. Specifically, this feature is present in all claims through their dependency on

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<sup>6</sup> Patent Owner also asserts that the Nomad Jukebox was praised for browsing by album, artist, and genre (claims 23–28) and adding songs to an active queue list (claims 17, 18, 20, 22, 24, 26, and 28). PO Resp. 61. We address this evidence *infra* in the analysis of the challenged grounds for these claims.

independent claim 1. Claim 1 was canceled during the reexamination because the Examiner found it was both anticipated by and obvious over the prior art. *See* Ex. 2004, 6249–50 (maintaining the 35 U.S.C. §§ 102(b) and 103(a) rejections of claim 1 and entering an Examiner’s amendment into the record canceling claim 1). Therefore, the asserted industry praise for the hierarchical feature is not directed to “what was not known in the prior art” and, thus, the requisite nexus does not exist.

We turn next to Patent Owner’s evidence of industry praise of “accessing songs by a group,” which Patent Owner asserts to be the feature recited in claims 2, 3, 17, and 19–28. PO Resp. 60. Patent Owner’s assertion of industry praise for the “accessing songs by a group” feature relies on a single sentence in a November 2000 article in “PC World” reviewing the Nomad Jukebox. *Id.* (citing Ex. 2011). The cited portion of the article states “[u]sing the intuitive on-board Music Library button, I could browse various albums or individual song tracks and move them to an active playlist with a single touch.” Ex. 2011. But, the “on-board Music Library button” praised by reviewer as “intuitive” is not recited in the claims. Thus, there is insufficient nexus between the claims and the purported praise to support a finding of non-obviousness.

We conclude the preponderance of the evidence does not support licensing and industry praise as indicative of non-obviousness of claims 2, 3, 5, and 7 of the ’433 patent. Patent Owner’s weak evidence of secondary considerations does not outweigh Petitioner’s strong evidence regarding the teachings of Birrell and Seidensticker with respect to the subject matter of these claims.

### 8. *Conclusion of Obviousness*

For the foregoing reasons, we conclude that Petitioner has demonstrated, by a preponderance of the evidence that claims 2, 3, 5, and 7 would have been obvious over Birrell and Seidensticker.

#### *E. Obviousness over Birrell, Seidensticker, and Proehl*

Petitioner challenges dependent claims 19, 21, and 25 as unpatentable as obvious under 35 U.S.C. § 103(a) over the combination of Birrell, Seidensticker, and Proehl. Pet. 80–87, 89–92.

Proehl describes a graphic user interface for use with a multi-recording medium integrated player (e.g., multi-disc CD player). Ex. 1011, 1:6–10. A sort option is provided from which the user may select various sort options, such as genre, artist, and title. *Id.* at 5:58–63. If a genre sort is selected, a plurality of sub-options, including various genres to choose from, are displayed. *Id.* at 5:64–66. After the user has selected a genre, information relating to all CDs that are related to the associated genre is displayed. *Id.* at 6:2–5.

Claims 19 and 21 depend from claim 5. Petitioner asserts that when the Birrell-Seidensticker combination is modified to employ the top-level “genre, artist, title” categories of Proehl, the selection of either “genre” or “artist” at the first menu level would lead to a listing of albums at the third level, as set forth in claims 19 (selected item is associated with a plurality of tracks) and 21 (selected item is a selected album name). Pet. 84–87. Petitioner similarly asserts the combination teaches the specific “genre,” “genre-type”, and “album-name” display screen hierarchy and “accessing at least one track” as set forth in claim 25. *See* Pet. 89–92. Petitioner provides example display screens illustrating how the combination discloses the

display of a categories list in a first display screen (including genre and artist options), a list of genres in a second display screen after selection of the genre option, and a list of CDs (albums) in a third display screen associated with a particular genre type (rock). *See* Pet. 84–86, 90–91. We have reviewed the analysis of these claims set forth by Petitioner and find it persuasive. Accordingly, we determine Petitioner establishes the combination of Birrell, Seidensticker, and Proehl discloses the limitations of claims 19, 21, and 25.

Patent Owner asserts the combination does not cure the deficiencies in the Birrell-Seidensticker combination. PO Resp. 40. For the reasons discussed previously, we are not persuaded of any such deficiencies.

Regarding Petitioner’s reasons to combine Proehl with Birrell and Seidensticker, Petitioner contends a person of ordinary skill in the art would have had reason to employ Proehl’s music categorization hierarchy in the Birrell-Seidensticker combination to facilitate the location of albums and/or tracks within the device in a similar manner. Pet. 81. Petitioner asserts a person of ordinary skill had reason to include such options to provide more ways to search for music. Reply 18. In support of Petitioner’s assertions, Dr. Bederson testifies that a person of ordinary skill would have recognized that Proehl’s teachings would have been directly applicable to Birrell and would have recognized that its teachings could be employed in Birrell to provide additional ways of finding tracks based on different parameters. Ex. 1006 ¶ 234. Dr. Bederson further testifies that a person of ordinary skill would have recognized it would have been a simple, predictable modification to extend Birrell’s hierarchical table of contents to include the additional hierarchies for top-level options described by Proehl, such as

artist and album/title, and that the combination would have been recognized as the use of a known technique to improve a similar device in the same way. *Id.* Dr. Bederson explains that there are a number of well-known data-structures that could be used to incorporate the album and genre into Birrell’s hierarchy, including modifying the existing Birrell structure or using another data structure to support a multiple hierarchy, and that a person of skill in the art would be familiar with the necessary data structures to support simple navigation across multiple hierarchies. Ex. 2017, 152–153.

Patent Owner argues that Petitioner fails to provide adequate explanation for why a person of ordinary skill in the art would have combined the references in the claimed manner. PO Resp. 40–46. Patent Owner argues Proehl is directed to “sorting,” rather than categorizing, and its conventional large-screen user interface teachings would not be applicable to Seidensticker with its focus on a small-screen device. *Id.* at 41–42. Patent Owner also argues that Petitioner’s expert relies on Proehl’s “sort-by pop up menu” for the combination, which is a specific user interface structure that would not be obvious to a person of ordinary skill in the art that it could serve its purpose divorced from the large-screen personal computer interface of Proehl. *Id.* at 42–43. Patent Owner further asserts Petitioner fails to provide evidence explaining why Birrell’s single genre hierarchy was inadequate and also fails to explain how a top-level hierarchy could be compatible with the table of contents described by Birrell. *Id.* at 43–44. Patent Owner additionally asserts that adopting Proehl to work with Birrell would change Birrell’s principle of operation because Birrell’s table of contents provides a simple organizational structure to find files on storage



and this purpose could be frustrated by permitting multi-hierarchy searching as it would increase the computational complexity and/or storage for the table of contents and make it more difficult for power saving benefits to be obtained. *Id.* at 44–45. In support of its assertions, Patent Owner relies on testimony of its witness, Mr. Bear. *See* Ex. 2014 ¶¶ 105–119.

We are not persuaded by Patent Owner’s arguments. We determine Petitioner articulates sufficient persuasive reasoning to support combining the teachings of Proehl with Birrell and Seidensticker in the proposed manner. In particular, Petitioner persuades us one of ordinary skill would have reason to combine Proehl’s categorization options in the Birrell-Seidensticker combination to provide the user with additional ways of finding tracks (by album name and artist) and that such a combination would have been a simple, predictable modification. Moreover, we note that Birrell describes its top level categorization scheme (by genre) as exemplary and does not preclude other categorization options. *See* Ex. 1013, 4:52–56.

We are not convinced by Patent Owner’s arguments that Proehl’s categorization options are only applicable to large screen user interfaces and observe that Petitioner does not propose to bodily incorporate Proehl’s pop-up menu, but only the options provided in the menu. Furthermore, as noted by Petitioner (Reply 20), Patent Owner and its expert, Mr. Bear, do not provide sufficient evidence that the combination would in fact increase computational complexity to search for music files on storage or otherwise make it more difficult for Birrell to achieve its asserted power savings benefits. We give little weight to such testimony. *See* 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”). After

considering the opinions of both experts, we give greater weight to the opinion of Dr. Bederson, which is supported by underlying facts and data, that the proposed combination would be a simple, predictable modification for one of ordinary skill in the art to extend Birrell to additionally include Proehl's categorization by artist and album and that one of skill in the art would have reason to make the modification to provide the user with more navigation options.

We now turn to Patent Owner's argument that there are secondary considerations that compel a finding of non-obviousness for these claims. *See* PO Resp. 57–63. We are not persuaded. For the reasons discussed previously, Patent Owner's evidence regarding licensing and the “hierarchical navigation” feature is entitled to little or no weight. Patent Owner additionally asserts that its evidence of industry praise for browsing by album, artist, and genre (claims 23–28) weighs against any finding of obviousness. PO Resp. 61–62. In support of this assertion, Patent Owner relies on four different articles that review the Nomad Jukebox. *Id.* at 60 (citing Exs. 2007, 2008, 2009, 2010).

The first article relied upon by Patent Owner states that the developers of the Nomad Jukebox coped “really well” with the classification issue and describes that “there are three main criteria for sorting the tracks: albums, artists and genre.” Ex. 2007, 3. The second article states “[t]he player lets you navigate easily through your library of songs. The tracks are sorted by playlist, albums, artist and genre.” Ex. 2008, 3. The third article, awarding the Nomad Jukebox “Gadget of the Month,” is a few paragraphs long and describes the product as effectively working “just like a bigger version of the portable MP3 players that have become so popular.” Ex.

2009. It further describes that the product “can create playlists, of course, and once the music is on the jukebox, you can choose a specific track or playlist or sort it by genre, artist, or album.” *Id.* The last article states “the Nomad’s organization system is great” and describes that files can be organized and searched by artist, album, genre, song title, and playlist. Ex. 2010, 2.

As noted by Petitioner (Reply 24), the Nomad Jukebox was a newly launched product at the time these articles were written. *See* Ex. 2004, 1826 (describing that the Nomad Jukebox was launched on September 18, 2000). This type of routine media coverage of a new product, which primarily describes features of the product, is weak evidence of industry praise. Moreover, we note that the articles do not describe that sorting by album, artist, and genre is unique to this product. Indeed, as evidenced by Proehl, it was known in the art to provide these sort options. *See* Ex. 1011, 5:58–63. Thus, there is insufficient nexus to accord Patent Owner’s evidence substantial weight because that evidence is not directed to what was “not known in the prior art.” *See Novartis*, 853 F.3d at 1331.

We determine that the weak evidence of secondary considerations is insufficient indicia of non-obviousness to outweigh the strong evidence regarding the teachings of Birrell, Seidensticker, and Proehl. We conclude that Petitioner has demonstrated, by a preponderance of the evidence that claims 19, 21, and 25 would have been obvious over Birrell, Seidensticker, and Proehl.

*F. Obviousness over Birrell, Seidensticker, Proehl, and Johnson*

Petitioner challenges dependent claims 23 and 27 as obvious under 35 U.S.C. § 103(a) over the combination of Birrell, Seidensticker, Proehl, and Johnson. Pet. 95–97.

Johnson describes an audio player with a cartridge holder and associated software that downloads a database of album information contained in each musical cartridge located in the cartridge holder. Ex. 1012, 2:60–3:4. The system provides the user with the ability to choose a single cartridge to play according to artist and categories of music. *Id.* at 3:4–9. An interface is provided that allows users to select from an album button and an artist button. *Id.* at 5:1–5. The album button displays a list of albums from which a user can select a desired album to be played, and upon selection displays the song screen of the selected album from which a user can select a particular song. *Id.* at 10:14–24. The artist button displays the available artists in a user’s collection, which can be selected by a user to display the artist’s albums. *Id.* at 10:63–11:12

Petitioner asserts Johnson discloses the specific sequence of display screens recited in claims 23 and 27. Pet. 95–97 (additionally citing analysis in Pet. 88–89, 92–95). We have reviewed the analysis and information provided by Petitioner and are persuaded that Petitioner establishes the combination of cited references teaches the limitations of these claims, including the specific album–album-names–tracks hierarchy recited in claim 23 and the artist–artist-name–album name hierarchy recited in claim 27. *See* Ex. 1012, 5:1–5, 10:14–24, 10:63–11:12.

Patent Owner asserts the combination does not cure the deficiencies in the Birrell-Seidensticker combination. PO Resp. 46. For the reasons discussed previously, we are not persuaded of any such deficiencies.

Patent Owner also argues that Petitioner's evidence does not sufficiently support its reasoning to combine Johnson with Birrell, Seidensticker, and Proehl. PO Resp. 46–48. Specifically, Patent Owner argues (1) a person of ordinary skill would not have made the combination without the benefit of hindsight; (2) Johnson is primarily directed to a standalone piece of audio equipment whose subcategories are selected via physical push-buttons and the use of dedicated buttons are inconsistent with Seidensticker's interface; and (3) Petitioner's reason that the combination would provide "additional options" is insufficient because every user interface requires a selection among many design choices. *Id.*

We disagree with Patent Owner that Petitioner's rationale is inadequate. Rather, we determine Petitioner provides sufficient articulated reasoning to support its combination through its assertion that Johnson's teachings would have provided additional options for navigating a music library for a person of ordinary skill in the art building a user interface for a music library. Pet. 96–97; *see also id.* at 62. Petitioner's assertions are supported by the testimony of Dr. Bederson, which we credit. *See Ex. 1006 ¶¶ 256–259.* In particular, we credit Dr. Bederson's testimony that the additional options disclosed by Johnson would have presented a straightforward design choice to a person of ordinary skill in the art for building a user interface for a music library. *Id.* ¶ 256. We are not persuaded by Patent Owner's argument regarding Johnson's use of physical buttons because Petitioner proposes to incorporate Johnson's options for

navigating a music library, not to bodily incorporate Johnson's physical buttons. Furthermore, we are persuaded by Dr. Bederson's testimony that a person of ordinary skill would have understood that the music access interfaces described by the references are directly applicable to improving other user interfaces for music access. *Id.* ¶ 259. Patent Owner's arguments that every interface requires a selection among many potential options does not persuade us of any deficiency in Petitioner's rationale that one of skill in the art wanting to provide more options for navigating a music library would have reason to look to Johnson.

With respect to secondary considerations of non-obviousness for the claims challenged in this ground, Patent Owner does not present any new evidence for these claims that was not discussed previously. *See* PO Resp. 57–63. For the reasons discussed *supra*, Patent Owner's weak evidence of secondary considerations is insufficient to weigh against a conclusion of non-obviousness.

We conclude that Petitioner has demonstrated, by a preponderance of the evidence that claims 23 and 27 would have been obvious over Birrell, Seidensticker, Proehl, and Johnson.

*G. Obviousness Based on Birrell, Seidensticker, and Looney*

Petitioner challenges dependent claims 17, 18, 20, 22, 24, 26, and 28 as obvious under 35 U.S.C. § 103(a) over the combination of Looney with: (i) Birrell and Seidensticker (claims 17 and 18); (ii) Birrell, Seidensticker, and Proehl (claims 20, 22, 26); (iii) and Birrell, Seidensticker, Proehl, and Johnson (claims 24 and 28). Pet. 97–99.

Looney describes a music organizer and entertainment center for playing back music according to a variety of predetermined categories. Ex.

1009, 2:5–9. Exemplary categories include title, artists, and music style. *Id.* at 2:16–18. Music can be played back in random form or according to a pre-selected order. *Id.* at 2:9–10. Songs can be entered into a play list; once a selected play list is created, the user has the option to load and/or save the play list. *Id.* at 9:36–37, 9:57–61.

Figure 6 of Looney is reproduced below:

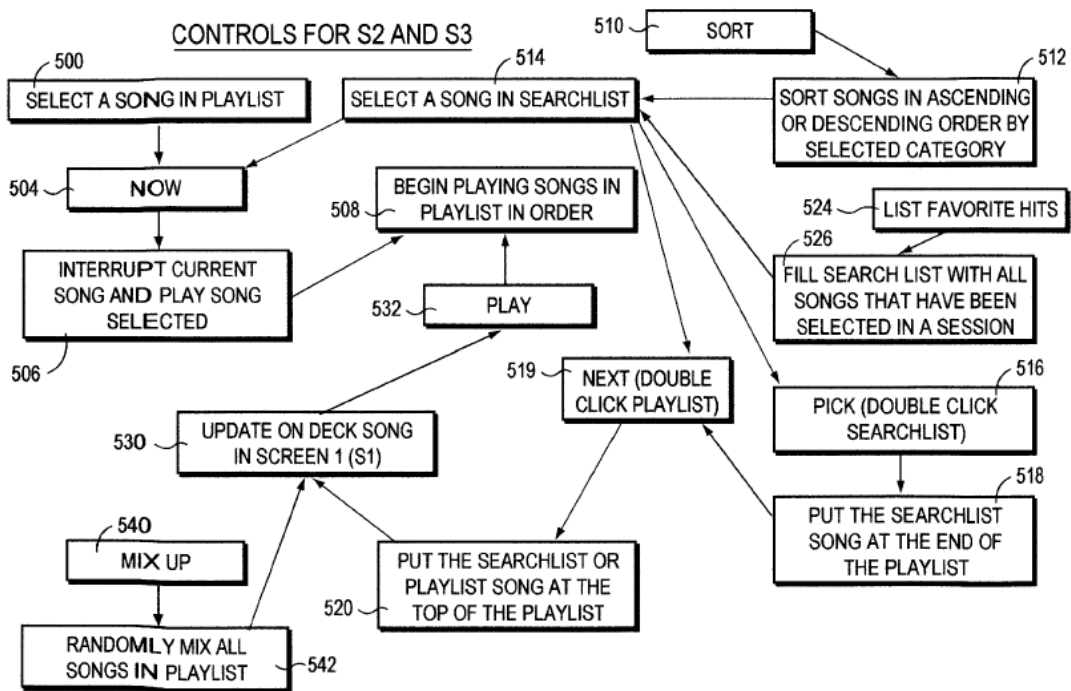


FIG. 6

Figure 6 is a schematic flow diagram showing controls for user interface screens S2, S3 used to select and play songs. *See id.* at 3:33–35, 10:35–36. When a song in a playlist is selected in block 500 (or a song in a search list is selected in block 514), the user can press a “Now” button to cause the song to be played immediately (block 504). *Id.* at 10:37–40, 10:46–47. Any currently playing song is interrupted in block 506 and the selected song is played instead. *Id.* at 10:40–42. At block 518, a selected song in a search

list can be put at the end of a given play list. *Id.* at 10:48–50. Alternatively, a user can click twice as shown in block 519 to place the selected song at the top of the play list in block 520. *Id.* at 10:50–53. If a song is placed at the top of the play list (block 520), the on deck song is updated in block 530 and the song is then played based upon play block 532, which causes songs to be played in the play list order selected in block 508. *Id.* at 10:59–61, 10:64–66. Figure 6 depicts additional blocks not described.

Claims 17, 18, 20, 22, 24, 26, and 28 all recite the identical limitation that “the playlist is an active queue list of songs that is currently being played,” differing only in the claim from which they depend. Petitioner contends Looney discloses addition of songs to a playlist that is already in the midst of playing. Pet. 98. Specifically, Petitioner asserts Looney discloses adding songs to a playlist that is currently being played, including interrupting playback by adding songs to the top of the playlist. *Id.* (citing Ex. 1009, 9:56–63, 10:35–67). In support of its assertions, Petitioner relies on the testimony of Dr. Bederson. *See* Ex. 1006 ¶¶ 91, 272.

Patent Owner contends Looney does not disclose adding tracks to an active queue list of songs that is currently being played. PO Resp. 54–57. Patent Owner argues nothing in Looney suggests that the operation of the “Now” feature adds songs to a playlist, but rather the “Now” feature simply states “the selected song is played” and there is no mention of that song becoming part of any playlist. *Id.* at 55. Patent Owner further argues the “Pick” and “Next” features both show that the “Play” button must be expressly invoked (manually selected by the user) to cause the selected songs in the playlist to “begin playing.” *Id.* at 56. Patent Owner asserts



Petitioner's expert's conclusions that Looney practices the limitation recited in these claims should be rejected. *Id.* at 56–57.

We agree with Petitioner that Looney teaches adding songs to an active queue list of songs that is currently being played. The cited disclosure of Looney describes a user can select a song from a search list (block 514) and add it to the play list according to Now block 504, which describes interrupting the current song and playing the selected song instead (block 506), or the song can be placed at the end of the given play list (block 518) by invoking pick block 516. Ex. 1009, Fig. 6, 10:35–53. We are not persuaded the song does not become part of the playlist because the claims specifically recite the playlist is “an active queue list of songs.” Looney discloses the added song becomes part of an active queue list of songs (either at the top by invoking the “Now” button or at the end by invoking pick block 516).

Further, Patent Owner does not persuade us that a person of ordinary skill in the art would understand from the cited passages of Looney's disclosure that play block 532 must be manually invoked by a user after invoking pick block 516. Dr. Bederson testifies that play block 532 would not be understood to be triggered by user action, but rather software code that plays music. Ex. 1020 ¶¶ 18–19; *see also* Reply 22. We give greater weight to the testimony of Dr. Bederson than to Patent Owner's attorney arguments, which are unsupported by expert testimony. Although we agree with Petitioner and its expert that pick block 516 adds a song to a bottom of an active queue list of songs, we emphasize again that Looney also expressly discloses another way to add a song to the top of an active queue by selecting a song from a search list (block 514) and invoking Now block 504

to interrupt the currently playing song and play the selected song instead. *See* Ex. 1009, Fig. 6, 10:40–48.

We further determine that Petitioner provides sufficient articulated reasoning to support the proposed combinations. Specifically, Petitioner asserts a person of ordinary skill in the art would have had a reason to modify the Birrell-Seidensticker combination (claims 17, 18); the Birrell-Seidensticker-Proehl combination (claims 20, 22, 26); and the Birrell-Seidensticker-Proehl-Johnson combination (claims 24, 28) to support adding songs to playlists during playback of those playlists. Pet. 98 (citing Ex. 1006 ¶ 273). In support of this assertion, Dr. Bederson testifies a person of ordinary skill would have recognized it as a predictable combination to incorporate Looney’s functionality into Birrell’s playlist and as merely applying a known technique (Looney’s playlist functionality) to a known device (Birrell’s portable media player) to improve that device in a predictable manner.

We are not persuaded by Patent Owner’s arguments that Petitioner’s reasoning to support the combination is insufficient. *See* PO Resp. 50–52. The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *See KSR*, 550 U.S. at 416. Patent Owner does not present persuasive evidence or testimony that the proposed combination would be challenging or would not be predictable.

Additionally, we are not persuaded Seidensticker’s small screen interface would need to be adapted for the combination. PO Resp. 53. As noted by Petitioner (Reply 23), Birrell already discloses adding songs to a playlist. Ex. 1009, 5:1–3. The proposed modification to add Looney is to

merely explicitly teach that functionality can be performed when the playlist is an active queue list of songs. We are also not persuaded by Patent Owner's arguments that a person of ordinary skill would not apprehend how Looney's complicated click-based user interface functionality could be adapted to work with the simple user interface of Seidensticker (PO Resp. 52) because the proposed modification is to not bodily incorporate Looney's user interface, but to teach the playlist to which songs are added (as disclosed by Birrell) can be an active queue of songs.

Furthermore, we are unpersuaded by Patent Owner's contention that secondary considerations compel a conclusion of non-obviousness for these claims. *See* PO Resp. 57–63. As discussed previously, Patent Owner's evidence regarding licensing and industry praise for the “hierarchical navigation” feature, “accessing songs as a group” feature, and “browsing by album, artist, and genre” feature is insufficient to support a conclusion of non-obviousness. Patent Owner additionally asserts that there is evidence of industry praise for the “adding songs to an active queue list” feature recited in claims 17, 18, 20, 22, 24, 26, and 28. *Id.* at 61. But Patent Owner's sole support for this assertion is the same single sentence relied on for the “accessing songs as a group” feature, which states “[u]sing the intuitive on-board Music Library button, I could browse various albums or individual song tracks and move them to an active playlist with a single touch.” *Id.* (quoting Ex. 2011). Such evidence provides insufficient indicia of non-obviousness of these claims to weigh against a conclusion of obviousness.

We conclude that Petitioner has demonstrated, by a preponderance of the evidence, that: (i) claims 17 and 18 would have been obvious over Birrell, Seidensticker, and Looney; (ii) claims 20, 22, and 26 would have

been obvious over Birrell, Seidensticker, Proehl, and Looney; and (iii) claims 24 and 28 would have been obvious over Birrell, Seidensticker, Proehl, Johnson, and Looney.

### III. CONCLUSION

Petitioner has demonstrated by a preponderance of the evidence that:

A. Claims 2, 3, 5, and 7 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell and Seidensticker;

B. Claims 19, 21, and 25 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell, Seidensticker, and Proehl;

C. Claims 23 and 27 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell, Seidensticker, Proehl, and Johnson;

D. Claims 17 and 18 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell, Seidensticker, and Looney;

E. Claims 20, 22, and 26 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell, Seidensticker, Proehl, and Looney; and

F. Claims 24 and 28 of the '433 patent are unpatentable under 35 U.S.C. § 103(a) over Birrell, Seidensticker, Proehl, Johnson, and Looney.

### IV. ORDER

It is

ORDERED that, based on a preponderance of the evidence, claims 2, 3, 5, 7, and 17–28 of U.S. Patent No. 6,928,433 are unpatentable under 35 U.S.C. § 103(a); and

FURTHER ORDERED that this is a final written decision of the Board under 35 U.S.C. § 318(a), and as such, parties to this proceeding

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seeking judicial review of our decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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