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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHARLES MCCOY, LEO MARK PEDLOW,
LING JUN WONG, and TRUE XIONG

Appeal 2019-001177
Application 13/474,635
Technology Center 2100

Before CAROLYN D. THOMAS, MICHAEL J. STRAUSS, and
SCOTT RAEVSKY, *Administrative Patent Judges*.

STRAUSS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1–4 and 6–27. *See* Final Act. 1. Claim 5 is canceled; claims 1 and 27 are independent. Appeal Br., Claims Appx. We have jurisdiction under 35 U.S.C. § 6(b).

¹ We refer to the Specification, filed May 17, 2012 (“Spec.”); Final Office Action, mailed November 30, 2017 (“Final Act.”); Appeal Brief, filed May 29, 2018 (“Appeal Br.”); and Examiner's Answer, mailed September 20, 2018 (“Ans.”).

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Sony Corporation and Sony Network Entertainment International LLC. Appeal Br. 2.

We AFFIRM.

CLAIMED SUBJECT MATTER

The claims are directed to user customization of menus. Spec., Title. Independent claim 1 is representative of the appealed claims. It is reproduced below with formatting modified for clarity, adopting Appellant's labels as shown in brackets (*see* Appeal Br. 14), and with emphasis added to the claim language that recites additional limitations beyond an abstract idea:

1. A method of dynamically customizing menus having menu items for a consumer *electronics device*, the method comprising:
 - [(a)] receiving a request for a menu customization *at a server* from the consumer *electronics device*;
 - [(b)] for the menus having the menu items that are non-standard predefined device menu items:
 - [(c)] preparing menu definitions for the menu items *by the server* for the menu customization of the menus *on the consumer electronics device*, wherein the menu customization is tailored to an owner of the consumer electronics device;
 - [(d)] generating menu configuration information *by the server* using the prepared menu definitions;
 - [(e)] for the menus having the menu items that are standard predefined device menu items:
 - [(f)] monitoring, tracking, and accumulating menu usage data;
 - [(g)] transmitting the menu usage data *to the server* for analysis; and
 - [(h)] performing the analysis of the menu usage data and generate the menu configuration information *by the server* using the menu usage data;
 - [(i)] transmitting the generated menu configuration information *by the server* to the consumer *electronics device*; and

[(j)] rearranging the ordering of the set of menu items on the menus of the consumer *electronics device* using the transmitted menu configuration information.

REFERENCE

The prior art relied upon by the Examiner is:

Name	Reference	Date
Freeman	US 6,828,992 B1	Dec. 7, 2004
Hayes	US 2007/0223737 A1	Sept. 27, 2007
Echevers	Logitech, “Harmony Tips and Tricks: Adding Favorite Channels & Icons to Harmony One” available at https://blog.logitech.com/2010/07/13/harmony-tips-and-tricks-adding-favorite-channels-icons-to-harmony-one/ retrieved Apr. 15, 2014.	July 13, 2010
Techgooch	Logitech Harmony One Review available at https://www.youtube.com/watch?v=4yg3gWVG-lQ retrieved Apr. 14, 2014	Dec. 10, 2010
Logitech User Manual	Logitech® Harmony® 700 Remote User Manual available at https://www.logitech.com/assets/44637/3/harmony700-user-guide.pdf	2010
Schmidt	Web page: Benedict Schmidt IT Strategy & Architecture • Technology go-to guy “Using the Apple TV 2 with Logitech’s Harmony 650 Remote” retrieved Apr. 15, 2014	Jan. 2011

REJECTIONS

Claims 1–4 and 6–27 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to provide a written description of the invention. Final Act. 5–6.

Claims 1–4 and 6–27 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception (i.e. abstract idea) without significantly more.. Final Act. 6–9.

Claims 1–4, 6, 7, 22–24, 26, and 27 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Freeman. Final Act. 9–15.

Claims 8–13, 15, 17, 21, and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman and Remote. Final Act. 15–25.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman and Hayes. Final Act. 25–26.

Claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman and Techgouch. Final Act. 26–27.

Claims 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman and Echevers. Final Act. 27–29.

Claims 20 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman and Schmidt. Final Act. 29–30.

STANDARD OF REVIEW

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

35 U.S.C. § 112, First Paragraph – Written Description

The Examiner finds inadequate written description support to the “non-standard” menu items recited by the independent claims. Final Act. 5. Appellant responds, directing attention to a description of standard predefined device menu items that “can be added to the menus without having to define the menus.” Appeal Br. 6 (citing Spec. ¶ 41). Appellant argues:

Since the term “non-standard predefined device menu items” refers to menu items that are not “standard predefined device menu items”, the term would mean that when the menu definition indicates that the menu is a non-standard pre-defined menu of the consumer electronics device, the menus must be defined before the menu definitions can be added to the menus.

Id. The Examiner responds, finding “it is unclear from the cited paragraph . . . whether a standard menu includes only standard menu items or it also includes a mixture of non-standard menu items.” Ans. 5. The Examiner further finds no mention of the argued “non-standard” menu item or how non-standard menu items differ from the disclosed standard menu items. *Id.* “Merely mentioning the sound menu is a standard sound menu, does not give definition to what is considered as standard and non-standard menu items.” *Id.* According to the Examiner:

[T]he definition for the term “non-standard predefined device menu items” as argue[d] by the Appellant is not found in the cited paragraph [41] and appears to be merely the Appellant’s opinion, because the cited paragraph makes no mention[] of [a] menu definition indicating any menu as non-standard pre-defined menu, and also makes no mention[] of [a] non-standard pre-

defined menu [that] must be defined before menu definitions can be added to the menu.

Ans. 5–6.

By statute, 35 U.S.C. § 112, first paragraph, requires “[t]he specification shall contain a written description of the invention.” Under this statute, a claim should be rejected for lack of written description when it recites elements found to be without support in the original disclosure. *See In re Rasmussen*, 650 F.2d 1212 (CCPA 1981). The test for written description is summarized in *Purdue Pharma*, 230 F.3d at 1323:

In order to satisfy the written description requirement, the disclosure as originally filed does not have to provide *in haec verba* support for the claimed subject matter at issue. *See Fujikawa v. Wattanasin*, 93 F.3d 1559, 1570 (Fed. Cir. 1996). Nonetheless, the disclosure “must . . . convey with reasonable clarity to those skilled in the art that . . . [the inventor] was in possession of the invention.” *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563–64 (Fed. Cir. 1991). Put another way, one skilled in the art, reading the original disclosure, must “immediately discern the limitation at issue” in the claims. *Waldemar Link GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 558 (Fed. Cir. 1994). That inquiry is a factual one and must be assessed on a case-by-case basis. *See Vas-Cath*, 935 F.2d at 1561 (“Precisely how close the original description must come to comply with the description requirement of § 112 must be determined on a case-by-case basis.”).

Because the sufficiency of the written description is evaluated by one of ordinary skill in the art, details that would be known by the skilled artisan need not be included in a patent specification. *See Hyatt v. Boone*, 146 F.3d 1348, 1353 (Fed. Cir. 1998). However, when an explicit limitation in a claim is not present in the written description, the burden is on the applicant to show that a person of ordinary skill in the art would have understood that

the description necessarily includes that limitation. *Cf. id.* at 1354–55. “One shows that one is ‘in possession’ of *the invention* by describing *the invention*, with all of its claimed limitations, not that which makes it obvious.” *Lockwood v. Am. Airlines Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997). Thus, the written description requirement is not satisfied if the disclosure merely would lead one to speculate as to “modifications that the inventor might have envisioned, but failed to disclose.” *Id.*

The U.S. Patent and Trademark Office (USPTO) bears the initial burden of presenting a *prima facie* case of unpatentability. *In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). The burden regarding the written description requirement is described in *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996) (parallel citations omitted):

Insofar as the written description requirement is concerned, that burden is discharged by “presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims.” *Wertheim*, 541 F.2d at 263. Thus, the burden placed on the examiner varies, depending upon what the applicant claims. If the applicant claims embodiments of the invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a *prima facie* case. *Id.* at 263–64. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsius verbis* (in the identical words), then the examiner or Board, in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. *Id.* at 264. Once the examiner or Board carries the burden of making out a *prima facie* case of unpatentability, “the burden of coming forward with evidence or argument shifts to the applicant.” *Oetiker*, 977 F.2d at 1445.

We have reviewed the cited portions of Appellant’s Specification and agree with the Examiner in finding there is inadequate written description

support for the disputed “non-standard” menu items limitation of independent claims 1 and 27. The term “non-standard” was first introduced into the claims by the Amendment filed July 24, 2017.³ We find no occurrence of the term prior to its introduction into the claim language. Thus, it is not clear how one skilled in the art would have considered Appellant to have been in possession of the invention including preparing menu definitions for menus having menu items that are non-standard predefined device menu items. As explained by the Examiner, disclosing a feature that is part of a menu that includes a standard menu without specifying what is in the standard menu (Spec. ¶ 41) does not provide a definition of what is required of or missing from non-standard menu items. Furthermore, in the complete absence of any mention of non-standard items, it is not clear how one skilled in the art would have understood non-standard items to be part of the subject matter being claimed as the invention.

For the reasons discussed, Appellant’s contention the Examiner erred in finding the Specification fails to comply with the written description requirement of 35 U.S.C. § 112, first paragraph, is not persuasive. *See In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984) (explaining arguments of counsel cannot take the place of factually supported objective evidence); *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974) (attorney argument is not evidence). Therefore, we sustain the rejection of independent claim 1 and, for the same reasons, the rejection of independent claim 27 under 35 U.S.C.

³ The Examiner refused entry of Appellant’s subsequent February 28, 2018 Rule 312 after final amendment deleting the disputed *non-standard* limitation. Advisory Action mailed March 30, 2018.

§ 112, first paragraph, together with the rejection of dependent claims 2–4 and 6–26.

35 U.S.C. § 101

PRINCIPLES OF LAW

A. Section 101

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court’s two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. at 219 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts

determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (quotation marks omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

B. USPTO Section 101 Guidance

In January 2019, the U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“2019 Revised Guidance”).⁴ “All USPTO personnel are, as a matter of

⁴ In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, *October 2019 Update: Subject Matter Eligibility* (the “October 2019 Update”) (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

internal agency management, expected to follow the guidance.” *Id.* at 51; *see also* October 2019 Update at 1.

Under the 2019 Revised Guidance and the October 2019 Update, we first look to whether the claim recites:

- (1) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes) (“Step 2A, Prong One”); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 2018)) (“Step 2A, Prong Two”).⁵

2019 Revised Guidance, 84 Fed. Reg. at 52–55.

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look, under Step 2B, to whether the claim:

- (3) adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or
- (4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

2019 Revised Guidance, 84 Fed. Reg. at 52–56.

⁵ This evaluation is performed by (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception, and (b) evaluating those additional elements individually and in combination to determine whether the claim as a whole integrates the exception into a practical application. *See* 2019 Revised Guidance - Section III(A)(2), 84 Fed. Reg. 54–55.

THE § 101 REJECTION AND CONTENTIONS

The Examiner rejects all claims under 35 U.S.C. 101 as directed to a judicial exception (i.e. abstract idea) without significantly more. Final Act. 6–7. According to the Examiner;

Claim 1 is directed to a method of collecting menu usage data from a user device, analyzing the menu usage data, generating a customized menu item arrangement based on the collected and analyzed menu usage data on a server, and present the customized menu item arrangement on the user device. The underlying concept is merely data collection, analyzing said data, and display certain results of the collection and analysis. This concept is not meaningfully different than those concepts found by the courts to be abstract (see: *Electric Power Group*^[6], collecting information, analyzing it, and displaying certain results of the collection and analysis; *Intellectual Ventures v. Capital One Bank*^[7], customizing information and presenting it to users based on particular characteristics; *Intel. Ventures v. Erie Indemnity Co.*^[8], remotely accessing and retrieving user-specified information; *Classen*^[9], collecting and comparing known information; *Bascom*^[10], [f]iltering content). Thus, the claims are directed to a judicial exception and fall within the realm of “abstract ideas”, which is a patent-ineligible concept (Step 2A: YES).

⁶ *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016).

⁷ *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363 (Fed. Cir. 2015).

⁸ *Intellectual Ventures I LLC v. Erie Indemnity Co.* 850 F.3d 1315 (Fed. Cir. 2017).

⁹ *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011).

¹⁰ *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

Id. In addition to those reciting abstract concepts of collecting and analyzing information, the Examiner identifies additional claim elements including: a consumer electronics device, menu customization, server, menu definition, menu configuration information, menu usage data, standard predefined device menu items, non-standard predefined menu items, and rearranging order of menu items. *Id.* at 7. According to the Examiner,

The additional elements . . . when considered both individually and as a combination do not amount to significantly more than the abstract idea because the limitations are merely instructions to implement the abstract idea on a consumer electronics device and require no more than a generic consumer electronics device and a generic server to perform generic functions. The menu customization, menu definition, menu configuration information, menu usage data, standard predefined device menu items, non-standard predefined device menu items, and rearranging order of menu items are well-understood, routine and conventional in the GUI art.

Id.

In response, Appellant addresses step 2A of the analysis, arguing, “[s]imilar to eligible claim 1 of example 23 of the Guidance [(which is directed to dynamically relocating textual information within a window displayed in a graphical user interface)] . . ., the claimed process relates to addressing several obstacles of browsing through the multiple screens implemented in a hierarchical menu structure by enabling the user to design and define the structure of the menu layers.” Appeal Br. 10 (citing July 2015 Update Appendix 1: Examples at 8 (available at <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-app1.pdf>)). Appellant further argues, “claim 1 does not recite a basic concept that is similar to any abstract idea previously identified by the courts” but, instead,

“is necessarily rooted in computer technology to overcome a problem specifically arising in the hierarchical menu structure.” *Id.* at 11.

Appellant further contends the claims are similar to those found patent eligible in *McRO*¹¹ because

when looked at as a whole, independent claim 1 is directed to a patentable, technological improvement over the existing method of browsing through the multiple screens implemented in a hierarchical menu structure. Further, claim 1 uses limited rules/steps in a process specifically designed to achieve an improved technological result in the conventional industry practice.

Id. at 12. Appellant still further argues the Examiner fails to consider the claims as whole when analogizing the present claims to those found patent ineligible by the courts. *Id.* at 13.

The Examiner responds, finding information and data processing steps of claim 1 are similar to those found patent ineligible in *Electric Power Group*. Ans. 6–7.

Claim 1, at most, is disclosing at a high level concept of customizing a menu including standard and non-standard menu items. The outcome of the data collection and analysis results in merely display of the customized menu based on the data collection and analysis of these collected data (i.e. menu usage).

Id. at 7. The Examiner further finds claim 1 is similar to claims found to be abstract by the court in *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229 (Fed. Cir. 2016). According to the Examiner:

Claim 1 is similar to [*Apple v.*] *Ameranth* in that both are claiming the abstract idea of generating a second menu (e.g. new customized menu) from a first menu (e.g. menu prior to

¹¹ *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016).

customization), and send[ing] the second menu to another location (e.g. sent from the server to the consumer electronic device).

Id. The Examiner concludes:

Finally, the claimed solution is [not] necessarily rooted in computer technology by merely reciting the use of a server and a consumer electronic device to implement the abstract idea. The claimed solution is not significantly different than the concept that has long been done by a person where items in a restaurant menu [are] rearranged over time, based on the popularity of certain popular items so that they are in more prominent locations in the menu, which allows more higher visibility to the restaurant patrons. As such, the claimed solution is not significantly more than the abstract idea.

Id. at 7–8.

ANALYSIS

Step 2A, Prong 1

We agree with the Examiner that the appealed claims recite receiving a menu customization request, collecting menu usage data, analyzing menu usage data, configuring and rearranging the order of menu items. Final Act. 6; Ans. 6. We further determine certain of the recited steps can be characterized as concepts performed in the human mind (e.g., observations, evaluations, judgments, and opinions) that are considered to be mental processes as explained below.

Limitation (a) of claim 1 includes the following language:

receiving a request for a menu customization . . . from the consumer

Appellant’s Specification describes events triggering such a request, including “[w]hen a consumer desires to configure menu settings.” Spec. p. 8, ll. 6–9. However, the request itself is only generally described. Thus,

receiving a request reasonably can be characterized as a mental process, i.e., a form of observation, evaluation, or judgment that can be performed in the human mind or with the aid of pencil and paper. The 2019 Revised Guidance recognizes such mental processes as constituting abstract ideas. 2019 Revised Guidance, 84 Fed. Reg. at 52. As such, limitation (i) recites a mental process, which is a recognized abstract idea.

Limitation (b) recites:

for the menus having the menu items that are non-standard predefined device menu items.

Thus, limitation (b) imposes a condition for performing the steps of limitations (c) and (d) that follow. Determining that the stated condition has been satisfied, i.e., the request is for menu items that are non-standard predefined device menu items, may be performed as an observation or evaluation that can be performed in the human mind. As such, limitation (b) recites a mental process, which is a recognized abstract idea.

Limitation (c) recites, in part:

preparing menu definitions for the menu items . . . for the menu customization of the menus . . . , wherein the menu customization is tailored to an owner of the consumer electronics device.

Appellant directs attention to Spec. p. 32, ll. 4–6, p. 37, l. 14 – p. 38, l. 10 for describing the limitation. Appeal Br. 3. The cited portions of the Specification describe (i) determining whether a set of menus includes items that are standard predefined device menu items; (ii) for predefined items: leaving out details and preparing menu definitions for menu configuration information; and (iii) if additional menus are to be defined the definitions are prepared for the additional menus and used to generate menu configuration information. The determining step is addressed by limitation (b) discussed

above. In connection with the step of preparing menu definitions, the Specification provides examples wherein the menu definition (i) “specifie[s] in the configuration data can be of the type that provides hierarchical arrangement of menu items” (Spec. p. 5, ll. 14–16), (ii) “may . . . restrict the choices for a parameter that is set through the menus” (Spec. p. 6, ll. 10–1); “include[s] a menu action” (Spec. p. 6, l. 16); (iii) “control[s] the ordering of menus and menu items” (Spec. p. 17, ll. 9–10); (iv) “indicates that a menu is a standard pre-defined menu of the consumer electronics device” (Spec. p. 22, ll. 16–18); and (iv) “can indicate that items from that menu are to be left out and can specify menu items to add to the items in that menu” (Spec. p. 23, ll. 2–4). Thus, preparing step (c) involves specifying menu characteristics that is reasonably considered to be an action that could be performed in the human mind and/or using pen and paper and, therefore, reasonably can be characterized as a mental step. As such, limitation (c) recites a mental process, which is a recognized abstract idea.

Limitation (d) recites, in part:

generating menu configuration information . . . using the prepared menu definitions.

Appellant directs attention to Spec. p. 38, ll. 6–8 for disclosing this limitation. Appeal Br. 3. However, the cited portion of the Specification provides no further details of what is required by generation step (d). Instead, we find the Specification discloses “[t]he menu configuration information provides a set of menus that can include items which are standard predefined device menu items” (Spec. p. 5, ll. 3–5, *see also id.* p. 35, ll. 5–7) and that “[t]he menu configuration information 140 can be communicated using a configuration data with markup language format such

as Extensible Markup Language (XML) [or] JavaScript Object Notation (JSON)” (*id.* p. 36, ll. 1–5). Thus, generating limitation (d) is described at a high level of generality as providing information used in performing the step of limitation (j), discussed further below, including rearranging the ordering of the set of menu items on the menus of the consumer electronics device using the transmitted menu configuration information. Determining an appropriate organization of menu items reasonably can be considered an evaluation, judgment or opinion that can be performed in the human mind and/or using pen and paper. As such, limitation (d) recites a mental process, which is a recognized abstract idea.

Limitation (e) recites, in part:

for the menus having the menu items that are standard predefined device menu items.

Thus, limitation (e) imposes a condition for performing the steps of limitations (f) through (h) that follow. Making a determination that the stated condition has been satisfied, i.e., the request is for menu items that are standard predefined device menu items, may be performed as an observation or evaluation that can be performed in the human mind. As such, limitation (e) recites a mental process, which is a recognized abstract idea.

Limitation (f) recites, in part:

monitoring, tracking, and accumulating menu usage data.

Appellant directs attention to Spec. p. 41, ll. 16–18 for disclosing this limitation. Appeal Br. 3. The cited portion of the Specification provides an example of monitoring how a user navigates through a menu. Spec. p. 41, ll. 16–18. Monitoring how a user navigates through a menu reasonably may be considered an observation that can be performed in the human mind.

Alternatively, it may reasonably be considered a social activity or other form of managing personal behavior, relationships or interactions between people. For example, a waiter in a restaurant may observe a patron's examination of a menu to identify particular interests in certain menu items so as to recommend and assist in making a food order (*cf.* Ans. 7–8 (Examiner's analogy to a restaurant menu)). As such, limitation (f) may be considered a method of organizing human activity. The 2019 Revised Guidance recognizes mental processes and certain methods of organizing human activity as constituting abstract ideas. 2019 Revised Guidance, 84 Fed. Reg. at 52. As such, limitation (f) recites a mental process or certain method of organizing human activity, both of which are recognized abstract ideas.

Limitation (g) recites, in part:

transmitting the menu usage data . . . for analysis.

Prior to the advent of the Internet, information often was delivered manually. For example, a first party could transmit information contained on paper or on a computer disk to a receiving party either by means of hand-delivery or by mail. Such acts reasonably can be characterized as managing personal interactions between people. Managing such personal interactions constitutes a particular type of organizing human activity--a category of abstract idea that is recognized by the 2019 Guidance. Likewise, in *Cyberfone* the Court held that “using categories to organize, store, and transmit information is well-established,” and “the well-known concept of categorical data storage, *i.e.*, the idea of collecting information in classified form, then separating and transmitting that information according to its classification, is an abstract idea that is not patent-eligible.” *Cyberfone Sys., LLC v. CNN Interactive Grp., Inc.*, 558 Fed. App'x. 988, 992 (Fed. Cir.

2014). Here, as in *Cyberfone*, information is received, organized, and transmitted. Accordingly, limitation (g) recites activities corresponding to those recognized as abstract ideas under our guidance and controlling precedent.

Limitation (h) recites, in part:

performing the analysis of the menu usage data and generate the menu configuration information . . . using the menu usage data;

Appellant directs attention to Spec. p. 42, l. 18 – p. 43, l. 1 in support of this limitation. Appeal Br. 3–4. The cited and immediately following portion of the Specification provides examples of the recited analysis as follows:

For example, the menu usage data is analyzed to break down the analysis by the displayed language to identify a particular translation that may need improvement if a menu item is less used or harder to find when the menus are displayed in a particular language. Other examples include moving popular menu items to places that allow quicker access including (1) locations that need to scroll through fewer menu items, (2) locations that need to navigate through fewer menu levels, or (3) locations in the menus that are easiest to access.

Spec. p 42, l. 20–43, l. 6. Identifying usage and positions to relocate objects such as menu items involves observation, evaluation, judgment, and/or opinion that are concepts performable in the human mind. *See, e.g.*, Ans. 7–8 (analogizing to analysis of a restaurant menu). As such, limitation (h) recites a mental process, which is a recognized abstract idea.

Limitation (i) recites, in part:

transmitting the generated menu configuration information . . . to the consumer . . .

This limitation recites a mental process for reasons similar to those discussed above in connection with transmitting limitation (g).

Limitation (j) recites, in part:

rearranging the ordering of the set of menu items on the menus . . .
device using the transmitted menu configuration information.

In support of the limitation Appellant directs attention to Spec. p. 12, ll. 8–18, p. 38, ll. 13–15 disclosing examples of customizing a menu to prevent selection of objectionable content and the ordering (i.e., arranging) of menu items. Appeal Br. 4. Rearranging menu items can be accomplished in the mind of a human and/or using pen and paper (e.g., arranging menu items on a printed restaurant menu). As such, limitation (j) recites a mental process, which is a recognized abstract idea.

For these reasons, we determine that all limitations of claim 1 recite abstract ideas.

Step 2A, Prong 2

Under step 2A, prong 2, of the 2019 Revised Guidance, we analyze whether any of the additional elements beyond the abstract idea integrate the abstract ideas into a practical application. 2019 Revised Guidance, 84 Fed. Reg. at 54.

In addition to the concept of collecting menu usage data, analyzing the menu usage data and generating a customized menu item arrangement based on the collected and analyzed menu usage data (which we determine corresponds to subject matter identified as abstract ideas according to the 2019 Revised Guidance for the reasons discussed above under Prong 1 of our analysis), claim 1 requires a consumer electronics device and a server. The consumer electronics device is disclosed as an “off-the-shelf” device

such as a television. Spec. p. 7, ll. 21–22. Similarly, the server is described at a high level of generality as implemented by a conventional computer system hosting a menu customizer functionality. Spec. p. 43, l. 7 – 45, l. 19. As disclosed the computer system includes a controller, memory, user interface (e.g., keyboard, mouse, speakers, and display), input/output (I/O) and network interfaces and “additional hardware and software typical of computer systems.” *Id.* Thus, we agree with the Examiner the additional elements “require no more than a generic consumer electronics device and a generic server to perform generic functions.” Final Act. 7.

Furthermore, in addition to determining the actions required by limitations (a), (g), and (i) are mental processes identified by the 2019 Revised Guidance as abstract ideas, we further determine these limitations are also considered insignificant extra-solution activity to the judicial exception. In particular, receiving limitation (a) defines a data-gathering activity. Transmitting limitations (g) and (i) merely require supplying menu usage data to a server for analysis (limitation (g)) and menu configuration information to a consumer electronics device (limitation (i)). Thus, limitations (a), (g), and (i) recite the type of extra-solution activity (i.e., in addition to the judicial exception) the courts have determined insufficient to transform judicially excepted subject matter into a patent-eligible application. *See* MPEP § 2106.05(g); 2019 Revised Guidance, 84 Fed. Reg. at 55 n.31; *Bancorp Servs., LLC v. Sun Life Assur. Co. of Can.*, 771 F. Supp. 2d 1054, 1066 (E.D. Mo. 2011) *aff’d*, 687 F.3d 1266 (Fed. Cir. 2012) (explaining that “storing, retrieving, and providing data . . . are inconsequential data gathering and insignificant post solution activity”); *Bilski*, 561 U.S. at 612 (holding the use of well-known techniques to

establish inputs to the abstract idea as extra-solution activity that fails to make the underlying concept patent eligible); *Elec. Power Grp.*, 830 F.3d at 1355 (explaining that “selecting information, by content or source, for collection, analysis, and display does nothing significant to differentiate a process from ordinary mental processes”).

Addressing Appellant’s contentions of error, we are unpersuaded by argument the pending claims are similar to claim 1 of example 23 in Appendix 1 of the July 2015 Update. Appeal Br. 7–11. As an initial matter, we note that the Update Appendix simply presents hypothetical examples. (See Update Appendix 1.) Moreover, “[e]ligibility-related guidance issued prior to the Ninth Edition, R–08.2017, of the MPEP (published Jan. 2018) should not be relied upon.” 2019 Revised Guidance, 84 Fed. Reg. at 51. Nonetheless, we further note that claim 1 of Example 23 recites a “method for dynamically relocating textual information within an underlying window displayed in a graphical user interface.” The Update Appendix explains that this method, unlike claim 1 in the present application, “is necessarily rooted in computer technology to overcome a problem specifically arising in graphical user interfaces.” (Update Appendix 9.) Appellant does not persuasively explain how or why claim 1, which does not recite any technological implementation details other than use of a computer (i.e., a server) and consumer electronics device (e.g., television), is rooted in computer technology to overcome a technological problem.

Rather than being directed to a technological problem, Appellant’s invention is directed to the underlying concept of creating customized menus tailored to specific requirements. See Ans. 6–7. This concept may be characterized as directed to methods of organizing human activities. For

example, to assist patrons in selecting a meal, a restaurant's printed menu may be organized to include sections directed to specific categories (e.g., breakfast, lunch, dinner, and children's menus) and appropriate subcategories (e.g., appetizers, entrées, salads, sandwiches, light fare, meat, fish, pasta, vegan, and desserts). Popular items may be more prominently displayed than less popular items as judged appropriate. *Id.* at 7–8. Thus, rather than being directed to solving a technological problem, the claims reasonably may be characterized as addressing the management of personal behavior or relationships or interaction between people that are considered certain methods of organizing human activity. *Cf. id.* Thus, we are unpersuaded by Appellant's argument that the claims are directed toward a technological problem and solution analogous to that of claim 1 of example 23.

We are also unpersuaded by Appellant's analogy to claim 1 in *McRO*. Appeal Br. 11–12. Specifically, Appellant argues:

Similar to the conclusion reached in [*McRO*] and the memorandum (“the Memo”) issued by the Deputy Commissioner for Patent Examination Policy (November 2, 2016), the use of the specific steps for menu customization that is tailored to an owner of the consumer electronics device for non-standard menu items and monitoring, tracking, and accumulating menu usage data and performing the analysis of the menu usage data for the standard menu items relates to addressing several obstacles of browsing through the multiple screens implemented in a hierarchical menu structure by enabling the user to design and define the structure of the menu layers.

(*Id.* at 12.)

The reasons claim 1 in *McRO* was found patent-eligible do not apply to Appellant's claims. “The claimed improvement [in *McRO*] was to how

the physical display operated (to produce better quality images), unlike (what is present here) a claimed improvement in [an associating] technique with no improved display mechanism.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018). In other words, in *McRO*, data was used to improve the technology, i.e., the display mechanism. Here, although claim 1 recites, e.g., “receiving”, “preparing”, “generating”, “monitoring”, “transmitting”, “performing”, and “rearranging”, it merely recites the functional results to be achieved. For example, claim 1 does not recite technical implementation details of *how* the claimed method generates menu configuration information using prepared menu definitions or menu usage data or how the method arrives at the rearranged ordering of sets of menu items using the configuration information. “Indeed, the claim language here provides only a result-oriented solution, with insufficient detail for how a computer accomplishes it. Our law demands more.” *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1342 (Fed. Cir. 2017).

We are also unpersuaded the Examiner failed to consider the claim as whole. *See* Appeal Br. 12–13. As discussed above, the Examiner determines the claims are directed to the concept of creating customized menus tailored to specific requirements. *See* Ans. 6–7. According to the Examiner, this concept is analogous to “a restaurant menu . . . being rearranged over time, based on the popularity of certain popular items so that they are in more prominent locations in the menu, which allows more higher visibility to the restaurant patrons. As such, the claimed solution is not significantly more than the abstract idea.” *Id.* at 7–8. Accordingly, contrary to Appellant’s argument, the Examiner has considered the claim as a whole.

For the reasons discussed above, Appellant has not persuaded us that the additionally claimed elements, viewed both individually and as an ordered combination, either improve the functioning of a computer, recite a particular machine or transformation, or provide any other meaningful limitations. MPEP § 2106.05(a)–(c), (e). That is, Appellant does not demonstrate that the invention integrates that recited abstract ideas of claim 1 into a practical application within the meaning of the 2019 Revised Guidance.

Step 2B

As noted above, the only claim elements beyond the recited abstract idea are a consumer electronics device and server. Claim 1, limitations (i)–(iv). Although the Examiner’s identification of additional elements differs somewhat from ours¹², we nonetheless agree the additional elements under either analysis simply append well-understood, routine, and conventional activities known to the industry specified at a high level of generality to the judicial exception. Final Act. 7. Appellant’s Specification does not reasonably indicate, and Appellant does not argue that, at the time of the invention, there was anything technologically challenging about configuring a consumer electronics device or computer to perform the steps of claim 1. *See generally* Spec. To the contrary, as discussed above, Appellant’s

¹² We note our reviewing court recognizes that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple v. Ameranth*, 842 F.3d at 1240. That need not and, in this case does not, “impact the patentability analysis.” *Id.* at 1241. Further, “[a]n abstract idea can generally be described at different levels of abstraction. . . . The Board’s slight revision of its abstract idea analysis does not impact the patentability analysis.” *Id.*

Specification discloses that all of the required functionality may be provided by conventional devices such as computers and televisions.

Eligibility Conclusion

Appellant has not adequately demonstrated that the Examiner erred in determining that claim 1 recites one or more abstract ideas, that the claim fails to integrate the abstract idea into a practical application, or that the additional claim elements add significantly more to the abstract idea. Accordingly, Appellant does not persuade us of that the Examiner erred in concluding that claim 1 is directed to patent-ineligible subject matter.

Accordingly, we sustain the § 101 rejection of independent claim 1. We also affirm this rejection of claims 2–4 and 6–27, which Appellant does not argue separately. Appeal Br. 13.

REJECTION OF CLAIMS AS BEING OBVIOUS
OVER THE PRIOR ART

The Examiner rejects independent claims 1 and 27 under 35 U.S.C. § 102(b) as being anticipated by Freeman. Final Act. 9–15. In relevant part, the Examiner finds Freeman’s buttons that are sorted into a list by usage count, i.e., are not yet grouped, disclose the non-standard predefined device menu items of limitation (b). Final Act. 10 (citing Freeman col. 4, ll. 30–45). According to the Examiner, Freeman’s further disclosure of partitioning the list of buttons based on the number of buttons that fit on a screen discloses the recited menus having menu items that are non-standard predefined device menu items. *Id.* The Examiner finds limitation (c) of preparing menu definitions for the menu items by the server for the menu customization of the menus on the consumer electronics device, wherein the

menu customization is tailored to an owner of the consumer electronics device is disclosed by Freeman's remote having different button configurations for each user. *Id.* (citing¹³ Freeman col 4, ll. 46–64)

Appellant contends Freeman's disclosure is deficient, first generally alleging the reference fails to disclose limitations (a) through (h). Appeal Br. 16–17. Appellant further contends Freeman's ungrouped buttons do not disclose the recited non-standard predefined device menu items, arguing there is no indication that “the menus must be defined before the menu definition can be added to the menus.” *Id.* at 17. Appellant further argues Freeman's grouped channel buttons do not disclose the standard predefined device menu items of claim 1 because the reference does not disclose that the standard predefined device menu items require menu definitions that can be added to the menus without having to define the menus. *Id.*

The Examiner responds, finding the Specification does not mention or provide a definition of the argued “non-standard predefined device menu items.” Ans. 8. According to the Examiner:

In view of lack of written description and definition of the term “non-standard predefined device menu items”, the [E]xaminer interprets the term as equivalent to the additional ungrouped buttons that are not grouped numerical TV channel buttons of Freeman. The examiner interprets the standard predefined device menu items as equivalent to the numerical TV channel buttons that are grouped of Freeman, which is known by one or ordinary skill in the art as standard buttons for a remote control. Finally, the limitation “the menus must be defined before the menu definitions can be added to the menus” as argued by the

¹³ The Examiner appears to have omitted the column number (i.e., column 4) in the citation to the Freeman reference with respect to limitation (c).

Appellant above, is [not] required by claim 1; therefore, the arguments are not persuasive.

Id. (citing Freeman col. 3, ll. 31–39; col. 3, l. 51 – col. 4, l. 2; col. 4, ll. 15–23, 30–48; col. 5, ll. 14–27, 46–51; Figs. 3–5).

Appellant’s contentions are unpersuasive of reversible Examiner error. During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). Under the broadest reasonable interpretation standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). However, a particular embodiment appearing in the written description must not be read into the claim if the claim language is broader than the embodiment. *See In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (“[L]imitations are not to be read into the claims from the specification.”). Construing claims broadly during prosecution is not unfair to the applicant, because the applicant has the opportunity to amend the claims to obtain more precise claim coverage. *Acad. of Sci. Tech Ctr.*, 367 F.3d at 1364. *See also In re Skvorecz*, 580 F.3d 1262, 1267–68 (Fed. Cir. 2009) (“Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified.” (quoting Manual of Patent Examining Procedure § 2111)).

Appellant’s general allegation that Freeman fails to disclose limitation (a) through (h) is unpersuasive absent further explanation and evidence.

Merely citing a claim limitation and asserting it is not present falls short of identifying an error in the Examiner's rejection as required on appeal. *See* 37 C.F.R. § 41.37(c)(1)(iv); *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”); *In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011) (“[T]he Board reasonably interpreted Rule 41.37 to require more substantive arguments in an appeal brief than a mere recitation of the claim elements and a naked assertion that the corresponding elements were not found in the prior art.”).

Appellant’s argument focused on the proffered interpretation of “non-standard predefined device menu items” (Appeal Br. 17) is also unpersuasive in the absence of sufficient evidence that the Examiner’s interpretation is unreasonable or inconsistent with the Specification. In particular, Appellant provides insufficient evidence that a proper interpretation of the claims requires that the menus must be defined before the menu definitions can be added to the menus. *Id.* Therefore, we agree with the Examiner that Appellant’s argument that Freeman fails to disclose: (i) menus of non-standard predefined device menu items must be defined before menu definitions can be added and (ii) menus having standard predefined device menu items permit the addition of menu definitions without having to define the menus, is not commensurate in scope with the claims. Instead, we agree with the Examiner in finding the argued limitations are disclosed by Freeman. Ans. 8.

For the reasons discussed above, Appellant’s contentions of error in connection with the anticipation rejection of independent claims 1 and 27 are unpersuasive of reversible Examiner error. Accordingly, we sustain the

rejection of independent claims 1 and 27 under 35 U.S.C. § 102 together with the rejection dependent claims 2–4, 6, 7, 22–24, and 26 that are not argued separately with particularity. Furthermore, we sustain the rejections of dependent claims 8–21 and 25 under 35 U.S.C. § 103(a), which are also not argued separately with particularity.

CONCLUSION

The rejection of claims 1–4 and 6–27 under 35 U.S.C. § 112, first paragraph, is affirmed.

The rejection of claims 1–4 and 6–27 under 35 U.S.C. § 101 is affirmed.

The rejection of claims 1–4, 6, 7, 22–24, 26, and 27 under 35 U.S.C. § 102(b) is affirmed.

The rejections of claims 8–21 and 25 under 35 U.S.C. § 103(a) are affirmed.

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–4, 6–27	112	Written Description	1–4, 6–27	
1–4, 6–27	101	Eligibility	1–4, 6–27	
1–4, 6, 7, 22–24, 26, 27	102(b)	Freeman	1–4, 6, 7, 22–24, 26, 27	
8–13, 15, 17, 21, 25	103(a)	Freeman, Remote	8–13, 15, 17, 21, 25	
14	103(a)	Freeman, Hayes	14	
16	103(a)	Freeman, Techgooch	16	
18, 19	103(a)	Freeman, Echevers	18, 19	
20	103(a)	Freeman, Schmidt	20	
Overall Outcome			1–4, 6–27	

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TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED