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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JAMES M. ALKOVE and CHADD B. KNOWLTON

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Appeal 2018-000847  
Application 11/972,612<sup>1</sup>  
Technology Center 3600

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Before ST. JOHN COURTENAY III, LARRY J. HUME, and  
JOYCE CRAIG, *Administrative Patent Judges*.

HUME, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the final rejection of claims 21, 23–26, and 32–38, which are all claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> According to Appellants, the real party in interest is Microsoft Technology Licensing, LLC. App. Br. 3.

## STATEMENT OF THE CASE<sup>2</sup>

### *The Invention*

Appellants' disclosed embodiments and claimed invention relate to "tools capable of managing digital content from multiple content providers based on a user's identity." Abstract.

### *Exemplary Claims*

Claim 21 reproduced below, is representative of the subject matter on appeal (*emphasis* and some formatting added to contested prior-art limitations):

21. A method implemented by a computing device comprising:

receiving, from a third-party content provider of one or more third-party content providers and by the computing device:

an indication of a selected entertainment content;

information indicating an identity of a user;  
and

device identification information indicating an identity of a selected device to which the selected entertainment content is to be downloaded and on which the selected entertainment is to be played, the selected entertainment to be downloaded from the third-party content provider;

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<sup>2</sup> Our decision relies upon Appellants' Second Corrected Appeal Brief ("Br.," filed Apr. 28, 2017); Examiner's Answer ("Ans.," mailed Aug. 14, 2017); Final Office Action ("Final Act.," mailed Nov. 29, 2016); and the original Specification ("Spec.," filed Jan. 10, 2008). We note Appellants did not file a Reply Brief in response to the factual findings and legal conclusions in the Examiner's Answer.

determining, by the computing device and based on the device identification information of the selected device and a profile associated with the identity of the user, that the selected device matches device identification information contained in the profile of the user;

determining, by the computing device, an advertisement to play with the selected entertainment content based on the profile associated with the identity of the user;

determining, by the computing device and based on the identity of the selected device and the profile associated with the identity of the user, a resolution at which to play the determined advertisement and the selected entertainment content, the determined resolution matching a maximum resolution of the selected device; and

indicating, by the computing device and to the third-party content provider, the determined advertisement to play and the determined resolution.

#### *Prior Art*

The Examiner relies upon the following prior art as evidence in rejecting the claims on appeal:

Wong	US 2004/0203648 A1	Oct. 24, 2004
Kjellberg et al. (“Kjellberg”)	US 2005/0071418 A1	Mar. 31, 2005
Angles et al. (“Angles”)	US 2006/0116924 A1	June 1, 2006

#### *Rejections on Appeal*

R1. Claims 21, 23–26, and 32–38 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 2.

R2. Claims 21, 23–26, and 32–38 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Final Act. 5.

R3. Claims 21, 23–26, and 32–38 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Final Act. 7.

R4. Claims 21, 23–26, and 32–38 stand rejected under 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Kjellberg, Angles, and Wong. Final Act. 8.

#### CLAIM GROUPING

Based on Appellants’ arguments (Br. 13–27) and our discretion under 37 C.F.R. § 41.37(c)(1)(iv), we decide the appeal of patent-ineligible subject matter Rejection R1 of claims 21, 23–26, and 32–38 on the basis of representative claim 21; we decide the appeal of written description Rejection R2 of claims 21, 23–26, and 32–38 on the basis of representative claim 21; we decide the appeal of indefiniteness Rejection R3 of claims 21, 23–26 and 32–38 on the basis of representative claim 21; and we also decide the appeal of obviousness Rejection R4 of claims 21, 23–26, and 32–38 on the basis of representative claim 21.<sup>3</sup>

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<sup>3</sup> “Notwithstanding any other provision of this paragraph, the failure of appellant to separately argue claims which appellant has grouped together shall constitute a waiver of any argument that the Board must consider the patentability of any grouped claim separately.” 37 C.F.R. § 41.37(c)(1)(iv). In addition, when Appellants do not separately argue the patentability of dependent claims, the claims stand or fall with the claims from which they depend. *In re King*, 801 F.2d 1324, 1325 (Fed. Cir. 1986).

## ISSUES AND ANALYSIS

Based upon our *de novo* review of the record in light of recent Director Policy Revised Guidance with respect to patent-eligible subject matter rejections under 35 U.S.C. § 101, we reverse Rejection R1 of claims 21, 23–26, and 32–38 for the specific reasons discussed below.

We also agree with Appellants’ arguments with respect to written description, indefiniteness, and obviousness Rejections R2–R4 of claims 21, 23–26, and 32–38, as discussed, *infra*.

1. § 101 Rejection R1 of Claims 21, 23–26, and 32–38

*Issue 1*

Appellants argue (Br. 11–18) the Examiner’s rejection of claim 21 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter is in error. These contentions present us with the following issue:

Under the USPTO’s Revised Revised Guidance, informed by our governing case law concerning 35 U.S.C. § 101, is claim 21 patent-ineligible under § 101?

## PRINCIPLES OF LAW

A. 35 U.S.C. § 101

“Whether a claim is drawn to patent-eligible subject matter is an issue of law that we review *de novo*.” *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319, 1331 (Fed. Cir. 2010).

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101.<sup>4</sup> However, the 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 Supreme Court’s two-step 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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes,

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<sup>4</sup> This threshold analysis of whether a claim is directed to one of the four statutory categories of invention, *i.e.*, a process, machine, manufacture, or composition of matter, is referred to as “*Step 1*” in the patent-eligibility inquiry under § 101.

such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

“[A]ll inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. Under this guidance, we must therefore ensure at step one that we articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful. *Alice*, 573 U.S. 208 at 217 (“[W]e tread carefully in construing this exclusionary principle lest it swallow all of patent law.”).

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. 208 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.* (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 Revised Guidance

The PTO recently published revised guidance in the Federal Register concerning the application of § 101. *2019 Revised Patent Subject Matter Eligibility Revised Guidance*, 84 Fed. Reg. 50 (January 7, 2019) (hereinafter “Revised Guidance”) (<https://www.govinfo.gov/content/pkg/FR-2019-01-07/pdf/2018-28282.pdf>).

Under the Revised Guidance, 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);<sup>5</sup> and

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<sup>5</sup> Referred to as “*Revised Step 2A, Prong 1*” in the Revised Guidance (hereinafter “*Step 2A(i)*”).

(2) additional elements that integrate the judicial exception into a practical application (*see* MPEP §§ 2106.05(a)–(c), (e)–(h)).<sup>6</sup>

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

(3) adds a specific limitation beyond the judicial exception that are 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.<sup>7</sup>

*See* Revised Guidance.

*Step 2A(i) – Abstract Idea*

Informed by our judicial precedent, the recent Revised Guidance extracts and synthesizes key concepts identified by the courts as abstract ideas to explain that the abstract idea exception includes the following groupings of subject matter, when recited as such in a claim limitation:

(a) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;

(b) Certain methods of organizing human activity — fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or

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<sup>6</sup> Referred to as “*Revised Step 2A, Prong 2*” in the Revised Guidance (hereinafter “*Step 2A(ii)*”).

<sup>7</sup> Items (3) and (4) continue to be collectively referred to as “*Step 2B*” of the Supreme Court’s two-step framework, described in *Mayo* and *Alice*.

relationships or interactions between people (including social activities, teaching, and following rules or instructions); and

(c) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion).

Under the Revised Guidance, if the claim does not recite a judicial exception (a law of nature, natural phenomenon, or subject matter within the enumerated groupings of abstract ideas above), then the claim is patent-eligible at *Step 2A(i)*. This determination concludes the eligibility analysis, except in situations identified in the Revised Guidance.<sup>8</sup>

However, if the claim recites a judicial exception (i.e., an abstract idea enumerated above, a law of nature, or a natural phenomenon), the claim requires further analysis for a practical application of the judicial exception in *Step 2A(ii)*.

#### *Step 2A(ii) – Practical Application*

If a claim recites a judicial exception in *Step 2A(i)*, we determine whether the recited judicial exception is integrated into a practical application of that exception in *Step 2A(ii)* by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

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<sup>8</sup> In the rare circumstance in which an examiner believes a claim limitation that does not fall within the enumerated groupings of abstract ideas should nonetheless be treated as reciting an abstract idea, the procedure described in of the Guidance for analyzing the claim should be followed. *See* Guidance, Section III.C.

The seven identified “practical application” sections of the MPEP,<sup>9</sup> cited in the Revised Guidance under *Step 2A(ii)*, are:

- (1) MPEP § 2106.05(a) Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field
- (2) MPEP § 2106.05(b) Particular Machine
- (3) MPEP § 2106.05(c) Particular Transformation
- (4) MPEP § 2106.05(e) Other Meaningful Limitations
- (5) MPEP § 2106.05(f) Mere Instructions To Apply An Exception
- (6) MPEP § 2106.05(g) Insignificant Extra-Solution Activity
- (7) MPEP § 2106.05(h) Field of Use and Technological Environment

If the recited judicial exception is integrated into a practical application as determined under one or more of the MPEP sections cited above, then the claim is not directed to the judicial exception, and the patent-eligibility inquiry ends. If not, then analysis proceeds to *Step 2B*.

*Step 2B – “Inventive Concept” or “Significantly More”*

Under our precedent, it is possible that a claim that does not “integrate” a recited judicial exception under *Step 2A(ii)* is nonetheless patent eligible. For example, the claim may recite additional elements that render the claim patent eligible even though a judicial exception is recited in a separate claim element.<sup>10</sup> The Federal Circuit has held claims eligible at the second step of the *Alice/Mayo* test (USPTO *Step 2B*) because the

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<sup>9</sup> See MPEP § 2106.05(a)–(c), (e)–(h). Citations to the MPEP herein refer to revision [R-08.2017].

<sup>10</sup> See, e.g., *Diehr*, 450 U.S. at 187.

additional elements recited in the claims provided “significantly more” than the recited judicial exception (e.g., because the additional elements were unconventional in combination).<sup>11</sup> Therefore, if a claim has been determined to be directed to a judicial exception under *Revised Step 2A*, we must evaluate the additional elements individually and in combination under *Step 2B* to determine whether they provide an inventive concept (i.e., whether the additional elements amount to significantly more than the exception itself).<sup>12</sup>

Under the Revised Guidance, we must consider in *Step 2B* whether an additional element or combination of elements: (1) “Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present;” or (2) “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.” *See Revised Guidance, III.B.*<sup>13</sup>

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<sup>11</sup> *See, e.g., Amdocs (Israel), Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300, 1304 (Fed. Cir. 2016); *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349–52 (Fed. Cir. 2016); *DDR Holdings v. Hotels.com*, 773 F.3d 1245, 1257–59 (Fed. Cir. 2014).

<sup>12</sup> The patent eligibility inquiry may contain underlying issues of fact. *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1325 (Fed. Cir. 2016). In particular, “[t]he question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact.” *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018).

<sup>13</sup> In accordance with existing *Step 2B* guidance, an Examiner’s conclusion that an additional element (or combination of elements) is well understood,

In the *Step 2B* analysis, an additional element (or combination of elements) is not well-understood, routine or conventional unless the examiner finds an evidentiary basis, and expressly supports a rejection in writing with, one or more of the following:

1. A citation to an express statement in the specification or to a statement made by an applicant during prosecution that demonstrates the well-understood, routine, conventional nature of the additional element(s).
2. A citation to one or more of the court decisions discussed in MPEP § 2106.05(d)(II) as noting the well-understood, routine, conventional nature of the additional element(s).
3. A citation to a publication that demonstrates the well-understood, routine, conventional nature of the additional element(s).
4. A statement that the examiner is taking official notice of the well-understood, routine, conventional nature of the additional element(s).

*See Berkheimer Memo.*

The analysis in *Step 2B* further determines whether an additional element or combination of elements:

- (a) Adds a specific limitation or combination of limitations that are not well-understood, routine, conventional

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routine, conventional activity must be supported with a factual determination. For more information concerning evaluation of well-understood, routine, conventional activity, *see* MPEP § 2106.05(d), as modified by the USPTO *Berkheimer* Memorandum (USPTO Commissioner for Patents Memorandum dated Apr. 19, 2018, “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP, Inc.*)” (hereinafter “*Berkheimer Memo*”).

activity in the field, which is indicative that an inventive concept may be present; or

(b) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, which is indicative that an inventive concept may not be present.

Revised Guidance, *and see Berkheimer* Memo.

If the Examiner or the Board determines under *Step 2B* that the element (or combination of elements) amounts to significantly more than the exception itself, the claim is eligible, thereby concluding the eligibility analysis.

However, if a determination is made that the element and combination of elements does not amount to significantly more than the exception itself, the claim is ineligible under *Step 2B*, and the claim should be rejected for lack of subject matter eligibility.

## ANALYSIS

### *Step 1*

Claim 21, as a method (“process”) claim, recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. Therefore, the issue before us is whether it is directed to a judicial exception without significantly more.

#### *Step 2A(i): Does the Claim Recite a Judicial Exception?*

We see that claim 21 does not recite the judicial exceptions of either natural phenomena or laws of nature. The Examiner determined that claim 21 is “directed to customizing an advertisement format based on user’s

profile” which is considered “organizing human activity.” Final Act. 2. We reevaluate *de novo* whether claim 21 recites one or more abstract ideas based upon the Revised Guidance.

Claim 21 recites the following limitations:

(1) “receiving . . . : an indication of a selected entertainment content; information indicating an identity of a user; and device identification information indicating an identity of a selected device to which the selected entertainment content is to be downloaded and on which the selected entertainment is to be played, the selected entertainment to be downloaded from the third-party content provider;”

(2) “determining . . . that the selected device matches device identification information contained in the profile of the user;”

(3) “determining . . . an advertisement to play with the selected entertainment content based on the profile associated with the identity of the user;”

(4) “determining . . . a resolution at which to play the determined advertisement and the selected entertainment content, the determined resolution matching a maximum resolution of the selected device;” and

(5) “indicating . . . the determined advertisement to play and the determined resolution.”

Claims App’x.

In agreement with the Examiner as quoted above, we conclude, when the claim is viewed as a whole, these limitations, under their broadest reasonable interpretation<sup>14</sup> recite “customizing an advertisement format based on user’s profile.” Final Act. 2. Moreover, with respect to claim

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<sup>14</sup> We give the contested claim limitations the broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997).

construction, the Specification provides context as to what the claimed invention is directed to. In this case, the Specification “describes tools capable of managing digital content from multiple content providers based on a user's identity.” Spec. ¶ 5.

We agree with the Examiner that claim 21 merely receives various types of information (data), and determines other types of information, including a selected advertisement, based upon the received data, and provides an indication of the determined advertisement and playback resolution. Ans. 3.

In particular, we find “determining . . . based on the device identification information of the selected device and a profile associated with the identity of the user, that the selected device matches device identification information contained in the profile of the user” as recited in limitation (2), and “determining . . . an advertisement to play with the selected entertainment content based on the profile associated with the identity of the user,” as recited in limitation (3), are characteristics of customizing an advertising format based on a user's profile.

We find this type of activity, i.e., comparing information using rules to make a determination, for example, could be carried out by a human with pen and paper. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375 (Fed. Cir. 2011) (“That purely mental processes can be

unpatentable, even when performed by a computer, was precisely the holding of the Supreme Court in *Gottschalk v. Benson*.”).<sup>15</sup>

Our reviewing court has concluded that abstract ideas include the concepts of collecting data, recognizing certain data within the collected data set, and storing the data in memory. *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A. Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). Additionally, the collection of information and analysis of information (e.g., recognizing certain data within the dataset) are also abstract ideas. *Elec. Power*, 830 F.3d at 1353–54 (collecting information and “analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, [are] essentially mental processes within the abstract-idea category”). Similarly, “collecting, displaying, and manipulating data” is an abstract idea. *Intellectual Ventures I LLC v. Capital One Fin. Corp.*, 850 F.3d 1332, 1340 (Fed. Cir. 2017). Also, collecting and comparing known information has been determined to be an abstract idea. *Classen Immunotherapies, Inc. v. Biogen IDEC*, 659 F.3d 1057, 1067 (Fed. Cir. 2011) (“Claim 1 of the ’283 patent states the idea of collecting and comparing known information”). Also, more recently, our reviewing court has also concluded that acts of parsing, comparing, storing, and editing data are abstract ideas. *Berkheimer*, 881 F.3d at 1366.<sup>16</sup>

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<sup>15</sup> *CyberSource* further guides that “a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101.” *CyberSource*, 654 F.3d at 1373.

<sup>16</sup> Our reviewing court recognizes that “[a]n abstract idea can generally be described at different levels of abstraction.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240 (Fed. Cir. 2016). That need not and, in this case does not, “impact the patentability analysis.” *Id.* at 1241.

Accordingly, we conclude limitations (2) and (3) of claim 21 recite abstract ideas relating to comparing data and using rules to determine an outcome, which we determine, under the Revised Guidance, recite mental processes, i.e., concepts performed in the human mind (including an observation, evaluation, judgment, or opinion), and thus abstract ideas.

*Step 2A(ii): Judicial Exception Integrated into a Practical Application?*

If the claims recite a patent-ineligible abstract idea, as we conclude above, we proceed to the “practical application” *Step 2A(ii)*, in which we determine whether the recited judicial exception is integrated into a practical application of that exception by: (a) identifying whether there are any additional elements recited in the claim beyond the judicial exception(s); and (b) evaluating those additional elements individually and in combination to determine whether they integrate the exception into a practical application.

In addition to the abstract “determining” steps identified in *Step 2A(i)*, *supra*, claim 21 recites (1) “receiving, from a third-party content provider . . . an indication of a selected entertainment content; information indicating an identity of a user; and device identification information;”

(4) “determining . . . based on the identity of the selected device and the profile associated with the identity of the user, a resolution at which to play the determined advertisement and the selected entertainment content, the determined resolution matching a maximum resolution of the selected device;” and (5) “indicating, by the computing device and to the third-party content provider, the determined advertisement to play and the determined resolution.”

As to the specific limitations, limitation (1), “receiving,” recites insignificant data gathering. *See* MPEP § 2106.05(g). Data gathering, as performed by the steps or function in Appellants’ claims, is a classic example of insignificant extra-solution activity. *See, e.g., In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc), *aff’d sub nom, Bilski v. Kappos*, 561 U.S. 593 (2010).

However, we conclude limitations (4) and (5) integrate the abstract idea into a practical application as determined under at least one of the MPEP sections cited above.<sup>17</sup>

Specifically, we find Appellants’ argument persuasive that the steps of (4) “determining . . . a resolution at which to play the determined advertisement and the selected entertainment content” and the step of (5) “indicating . . . the determined advertisement to play and the determined resolution” improve an existing technological process, as it is “applicable to large scales of data management in a rapidly growing digital content management industry” (Br. 16),<sup>18</sup> and which is an improvement in computer functionality. *See* Br. 16–18; *and see* MPEP § 2106.05(a) or, alternatively, § 2106.05(e) “Other Meaningful Limitations.”

With respect to these other meaningful limitations, Appellants argue:

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<sup>17</sup> For example, *See* MPEP § 2106.05(e) “Improvements to the Functioning of a Computer or To Any Other Technology or Technical Field” or § 2106.05(e) “Other Meaningful Limitations.”

<sup>18</sup> Because we agree with at least one of the dispositive arguments advanced by Appellants, we need not reach the merits of Appellants’ other arguments. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984) (finding an administrative agency is at liberty to reach a decision based on “a single dispositive issue”).

[After the preceding “determining” step], the step of indicating “the determined advertisement to play and the determined resolution” is performed . . . . [T]his process represents a tangible, inventive concept that is not abstract as the combination provides a practical implementation of customizing presentation of digital content to a user using a computing device.

Br. 16.

We find guidance in the Manual for Patent Examining Procedure section 2106.05(e), which summarizes and relies upon our reviewing court’s holdings in *Diamond v. Diehr*, cited *supra*, and *Classen Immunotherapies Inc. v. Biogen IDEC*, 659 F.3d 1057 (Fed. Cir. 2011) (decision on remand from the Supreme Court, which had vacated the lower court’s prior holding of ineligibility in view of *Bilski v. Kappos*).

In *Diamond*, the Court evaluated the additional non-abstract limitations, and found them to be meaningful because they sufficiently limited the use of the [abstract idea] mathematical equation to the practical application of molding rubber products. MPEP § 2106(e) (citing *Diamond*, 450 U.S. at 184, 187).

In *Classen*, the Court held that, although the analysis step was an abstract mental process that collected and compared known information, the [practical application] immunization step was meaningful because it integrated the results of the analysis into a specific and tangible method that resulted in the method “moving from abstract scientific principle to specific application.” MPEP § 2106(e) (citing *Classen*, 659 F.3d at 1066-68).

We find these other meaningful limitations, i.e., “determining . . . a resolution at which to play the [media]” and “indicating, by the computing

device and to the third-party content provider, the determined advertisement to play and the determined resolution” integrate the abstract ideas into a practical application, and thus improves “data management in a rapidly growing digital content management industry. Br. 16. Accordingly, we conclude, when the claim is considered as a whole, the recited judicial exception is integrated into a practical application as determined under either MPEP sections 2106.06(a) or 2106.05(e) cited above, such that the claim is patent-eligible.

Because the claims are directed to a patent-eligible concept, this concludes the patent-eligibility inquiry.

Therefore, based upon the findings and legal conclusions above, on this record and in consideration of the Revised Guidance, we are persuaded the claims are drawn to patent-eligible subject matter, such that we do not sustain the § 101 rejection of claim 21, and grouped claims 23–26 and 32–38 which stand therewith. *See Claim Grouping, supra.*

2. § 112, first paragraph, Rejection R2 of Claims 21, 23–26, and 32–38

Issue 2

Appellants argue (Br.18–20) the Examiner’s Rejection R2 of claim 21 under 35 U.S.C. § 112, first paragraph, as lacking written description support is in error. These contentions present us with the following issue:

Did the Examiner err in finding the recitation in claim 21 of “determining, by the computing device and based on the identity of the selected device and the profile associated with the identity of the user, a resolution at which to play the determined advertisement” and “indicating by

the computing device and to the third-party content provider, the determined advertisement to play and the determined resolution” lack written description support in the originally filed application?

Analysis

Appellants contend their “[s]pecification does describe subject matter in the claims.” Br. 19. Appellants also provide a mapping of support from the Specification for the disputed claim elements of claims 21 and 23. Br. 19–20.

Our reviewing court guides the written description “must clearly allow persons of ordinary skill in the art to recognize that [the inventor] invented what is claimed.” *Ariad Pharm., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (*en banc*) (citation and quotations omitted). The test is whether the disclosure “conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* “[A]ctual ‘possession’ or reduction to practice outside of the specification is not enough. Rather . . . it is the specification itself that must demonstrate possession.” *Id.* at 1352 (emphasis added); *see also PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1306–07 (Fed. Cir. 2008) (explaining that pre-AIA § 112, ¶ 1, “requires that the written description *actually* or *inherently* disclose the claim element.”) (Emphasis added).

We find the identified paragraphs of the Specification, as pointed to by Appellants (Br. 19–20), show possession of the limitations recited in claims 21 and 23. Therefore, we find the originally filed written description reasonably conveys to one of ordinary skill in the art the inventor had

possession of the claimed subject matter of independent claim 21 and dependent claim 23 as of the filing date. Accordingly, we reverse the Examiner's written description rejection of claims 21, 23–26, and 32–38 under 35 U.S.C. § 112, first paragraph.

3. § 112, ¶ 2 Rejection R3 of Claims 21, 23–26, and 32–38

Issue 3

Appellants argue (Br. 21–22) the Examiner's Rejection R3 of claims 21, 23–26, and 32–38 under 35 U.S.C. § 112, second paragraph, as being indefinite is in error. These contentions present us with the following issues:

Did the Examiner err in finding the recitation in independent claim 21 “the selected entertainment” is indefinite because it lacks antecedent basis under § 112? Did the Examiner err in finding the recitation in dependent claim 38 “the selected content” is indefinite because it lacks antecedent basis under § 112?

Analysis

We conclude the Examiner erred in his rejection under § 112, second paragraph, because claim 21 recites “a selected entertainment content” and claim 38 does not recite “the selected content,” as asserted by the Examiner, but rather recites “the selected *entertainment* content.” (Emphasis added).

Accordingly, we reverse the Examiner's indefiniteness rejection of claims 21, 23–26, and 32–38 under 35 U.S.C. § 112, second paragraph.

4. § 103(a) Rejection R4 of Claims 21, 23–26, and 32–38

Issue 4

Appellants argue (Br. 8–11) the Examiner’s rejection of claim 21 under 35 U.S.C. § 103(a) as being obvious over the combined teachings and suggestions of Kjellberg, Angles, and Wong is in error. These contentions present us with the following issue:

Did the Examiner err in finding the cited prior art combination teaches or suggests a method that includes, *inter alia*, the step of “receiving . . . device identification information indicating an identity of a selected device to which the selected entertainment content is to be downloaded and on which the selected entertainment is to be played, the selected entertainment to be downloaded from the third-party content provider,” as recited in claim 21?

Analysis

The Examiner finds the disputed limitation “device identification information indicating an identity of a selected device to which the selected entertainment content is to be downloaded and on which the selected entertainment is to be played, the selected entertainment to be downloaded from the third-party content provider,” is merely nonfunctional descriptive material, and does not give it patentable weight. Final Act. 11.

Appellants argue:

Appellant[s] submit[] that the Examiner's consideration of the above mentioned features to be nonfunctional descriptive material is not correct. Claim 21 recites the active steps of receiving . . . device identification information indicating an identity of a selected device to which the selected entertainment

content is to be downloaded and on which the selected entertainment is to be played . . .", and then "determining, by the computing device and *based on the device identification information of the selected device* and a profile associated with the identity of the user, that the selected device matches device identification information contained in the profile" and "determining, by the computing device and *based on the identity of the selected device* and the profile associated with the identity of the user, a resolution at which to play the determined advertisement and the selected entertainment content." Based on at least these features, the alleged nonfunctional descriptive material is specifically utilized to define how the active functional claim elements operate, and must therefore be considered to distinguish the invention from prior art. Furthermore, the feature "the selected entertainment to be downloaded from a third-party content provider" supports that the computing device functions in accordance with the federated manner, as described in paragraph [0023] of Specification, in contrast to a centralized manner, such as centralized manners described by Kjellberg or Angles.

Br. 26–27.

The PTAB has provided guidance in decisions regarding claims that differ from the prior art based only on NFDM which is *data*. See *Ex parte Nehls*, 88 USPQ2d 1883, 1889 (BPAI 2008) (precedential) (“[T]he nature of the information being manipulated does not lend patentability to an otherwise unpatentable computer-implemented product or process.”); *Ex parte Mathias*, 84 USPQ2d 1276, 1279 (BPAI 2005) (informative) (“[N]onfunctional descriptive material cannot lend patentability to an invention that would have otherwise been anticipated by the prior art.”), *aff’d*, 191 F. Appx. 959 (Fed. Cir. 2006) (Rule 36); *Ex parte Curry*, 84 USPQ2d 1272, 1274 (BPAI 2005) (informative) (“Nonfunctional descriptive

material cannot render nonobvious an invention that would have otherwise been obvious.”), *aff'd*, No. 06-1003 (Fed. Cir. June 12, 2006) (Rule 36).

However, in this case, and as an matter of claim construction, for the reasons as argued by Appellants, we conclude the limitation “*device identification information* indicating an identity of a selected device to which the selected entertainment content is to be downloaded and on which the selected entertainment is to be played, the selected entertainment to be downloaded from the third-party content provider” is not directed to non-functional descriptive material (NFDM) (Claim 21) (emphasis added). We conclude this limitation does not represent NFDM because the *device identification information* recited is actually used to determine the resolution at which to play the determined advertisement and the selected entertainment content, and, thus, is functional descriptive material.

Therefore, based upon the findings and conclusions above, on this record, we are persuaded of error in the Examiner’s obviousness rejection of independent claim 21. Therefore, we do not sustain the Examiner’s obviousness rejection of independent claim 21, and grouped claims 23–26 and 32–38, which stand therewith. *See Claim Grouping, supra.*

## CONCLUSIONS

(1) Based upon the Revised Guidance, claims 21, 23–26, and 32–38 in Rejection R1 are not directed to patent-ineligible subject matter under 35 U.S.C. § 101, and we do not sustain the rejection.

(2) The Examiner erred with respect to written description Rejection R2 of claims 21, 23–26, and 32–38 under 35 U.S.C. § 112, first paragraph and we do not sustain the rejection.

(3) The Examiner erred with respect to indefiniteness Rejection R3 of claims 21, 23–26, and 32–38 under 35 U.S.C. § 112, second paragraph and we do not sustain the rejection.

(4) The Examiner erred with respect to obviousness Rejection R4 of claims 21, 23–26, and 32–38 under 35 U.S.C. § 103(a), and we do not sustain the rejection.

## DECISION

We reverse the Examiner's decision rejecting claims 21, 23–26, and 32–38.

REVERSED