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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/016,173	09/02/2013	Neil O'Connor	413103-US-NP/AVA071PA	2655

136582 7590 03/25/2019
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EXAMINER

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ART UNIT	PAPER NUMBER
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3688

NOTIFICATION DATE	DELIVERY MODE
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03/25/2019

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte NEIL O’CONNOR

Appeal 2018-002211
Application 14/016,173¹
Technology Center 3600

Before JEAN R. HOMERE, HUNG H. BUI, and IRVING E. BRANCH,
Administrative Patent Judges.

BUI, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellant seeks our review under 35 U.S.C. § 134(a) from the Examiner’s Final Rejection of claims 1–19 and 21, which are all the claims pending in the application. Claim 20 is cancelled. Claims App’x. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.²

¹ According to Appellant, the real party in interest is Avaya, Inc. App. Br. 2.

² Our Decision refers to Appellants’ Appeal Brief (“App. Br.”) filed July 14, 2017; Reply Brief (“Reply Br.”) filed December 22, 2017; Examiner’s Answer (“Ans.”) mailed October 26, 2017; Final Office Action (“Final Act.”) mailed February 16, 2017; and original Specification (“Spec.”) filed September 2, 2013.

STATEMENT OF THE CASE

Appellant's invention relates to "a system and a method for allocation [of] resources consumed in an electronic game." Spec. ¶ 2. According to Appellant, "resources" consumed in an electronic game include, for example, "extended playtime, in game ability upgrades, in game items, additional playable characters and/or areas, and removal of ads [advertisements]." Spec. ¶ 3. The resources can also be "various advertisements [presented] to the consumer" and can even be "the ability to turn off advertisement, select a preferred category and/or delivery method for advertisements, or pause advertisements for a period of time." Spec. ¶ 41. These resources are then allocated to a consumer (e.g., gamer) based on (1) the consumer profile, and (2) one or more strategy rules selected, for example, to maximize (i) revenue (e.g., actual resource purchases and/or advertising revenue), (ii) playtime for each consumer, or (iii) advertisement views. Spec. ¶¶ 3, 61.

Claims 1, 13, and 21 are independent. Claim 1 is illustrative of the claimed subject matter, as reproduced below:

1. A resource allocation system for optimizing the allocation of resources in electronic games, comprising:
 - a non-transitory computer readable medium storing executable instructions;
 - a processor in communication with the non-transitory computer readable medium, wherein executing the executable instructions causes the processor to:
 - collect one or more consumer attributes associated with a consumer of an electronic game;
 - describe the consumer by the one or more consumer attributes to produce a consumer profile;

determine a first strategy rule, from among a plurality of different strategy rules, based on the consumer profile, wherein each of the plurality of different strategy rules define a respective resource allocation objective; and

allocate a resource of the electronic game to the consumer based on the consumer profile and the first strategy rule.

App. Br. 19 (Claims App'x).

EXAMINER'S REJECTIONS & REFERENCES

(1) Claims 1–19 and 21 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to an abstract idea without significantly more. Final Act. 2–6.

(2) Claims 1–19 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ernst (US 9,138,639 B1; issued Sep. 22, 2015) and Lutnick et al. (US 8,688,517 B2; issued Apr. 1, 2004; “Lutnick”). Final Act. 8–27.

DISCUSSION

Patent Eligible Subject Matter

To determine whether claims are patent eligible under 35 U.S.C. § 101, we apply the Supreme Court's two-step framework articulated in *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014). First, we determine whether the claims are directed to a patent-ineligible concept: laws of nature, natural phenomena, and abstract ideas. *Id.* at 216–17. If so, we then proceed to the second step to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a

patent-eligible application.” *Id.* at 217. In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Id.* (alteration in original).

The Federal Circuit has described the *Alice* step-one inquiry as looking at the “focus” of the claims, their “character as a whole,” and the *Alice* step-two inquiry as looking more precisely at what the claim elements add—whether they identify an “inventive concept” in the application of the ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Because there is no single definition of an “abstract idea” under *Alice* step 1, the Federal Circuit (1) has adopted the common law, analogy-driven approach (a.k.a. “analogous claim” test) to determine whether a claim is directed to an abstract idea, and (2) has instructed us “to examine earlier cases in which a similar or parallel descriptive nature can be seen—what prior cases were about, and which way they were decided.” *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1294 (Fed. Cir. 2016) (citing *Elec. Power Grp.*, 830 F.3d at 1353–54; *accord* USPTO Memorandum, July 2015 Update: Subject Matter Eligibility, 3 (July 30, 2015), <https://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf> (instructing examiners that “a claimed concept is not identified as an abstract idea unless it is similar to at least one concept that the courts have identified as an abstract idea”).

The PTO has acknowledged that the Federal Circuit’s common law, analogy-driven approach (a.k.a. “analogous claim” test) was effective soon after *Alice*, but recently concluded that approach has since become impractical as the growing body of Federal Circuit precedent has become increasing more difficult for the Office and Examiners to apply in a predictable manner. In particular, the PTO has issued a new § 101 Memorandum that governs all patent-eligibility analysis under *Alice* and § 101 effective as of January 7, 2019. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50, 52, Jan. 7, 2019 (“PTO § 101 Memorandum”). In this § 101 Memorandum, the PTO has synthesized, for purposes of clarity, predictability, and consistency, key concepts identified by the courts as abstract ideas to explain that the “abstract idea” exception includes the following three groupings:

- (1) Mathematical concepts—mathematical relationships, mathematical formulas or equations, mathematical calculations;
- (2) Mental processes—concepts performed in the human mind (including an observation, evaluation, judgment, opinion); and
- (3) 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 relationships or interactions between people (including social activities, teaching, and following rules or instructions).

PTO § 101 Memorandum, 84 Fed. Reg. at 52. According to the PTO § 101 Memorandum, “[c]laims that do not recite [subject] matter that falls within these enumerated groupings of abstract ideas should not be treated as reciting abstract ideas,” except in rare circumstances. Even if the claims

recite any one of these three groupings of abstract ideas, these claims are still not “directed to” a judicial exception (abstract idea), and thus are patent-eligible, if “the claim as a whole integrates the recited judicial exception into a practical application of that [judicial] exception.” *See* PTO § 101 Memorandum, 84 Fed. Reg. at 53. “[I]ntegration into a practical application” requires an additional element or a combination of additional elements in the claim to apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the exception. *See* PTO § 101 Memorandum, 84 Fed. Reg. at 53–55.

For example, limitations that are indicative of “integration into a practical application” include:

- 1) Improvements to the functioning of a computer, or to any other technology or technical field – *see* MPEP § 2106.05(a);
- 2) Applying the judicial exception with, or by use of, a particular machine – *see* MPEP § 2106.05(b);
- 3) Effecting a transformation or reduction of a particular article to a different state or thing – *see* MPEP § 2106.05(c); and
- 4) Applying or using the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception – *see* MPEP § 2106.05(e).

See PTO § 101 Memorandum, 84 Fed. Reg. at 53–55.

In contrast, limitations that are not indicative of “integration into a practical application” include:

- 1) Adding the words “apply it” (or an equivalent) with the judicial exception, or mere instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea – *see* MPEP § 2106.05(f);

- 2) Adding insignificant extra-solution activity to the judicial exception – *see* MPEP § 2106.05(g); and
- 3) Generally linking the use of the judicial exception to a particular technological environment or field of use – *see* MPEP § 2106.05(h).

See PTO § 101 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”).

Examiner’s Determination of Patent-Ineligibility

In rejecting claims 1–19 and 21 under 35 U.S.C. § 101, the Examiner determines these claims are generally directed to an abstract idea of “allocating virtual resources within a game to a consumer based on a set of criteria” which is considered as (1) “an idea itself,” i.e., mental steps, or (2) “method of organizing human activities [such as a fundamental economic practice] comprising advertising and marketing.” Final Act. 2–3. The Examiner also determines that the claims include limitations that are analogous or similar to concepts of “customizing information based on . . . information known about the user [i.e., user profile]” as discussed in *Affinity Labs of Texas (Affinity Labs of Texas v. Amazon.com Inc.* 838 F.3d 1266 (Fed. Cir. 2014) (holding that claims directed to “delivering user-selected media content to portable devices” are patent-ineligible under § 101).

The Examiner further determines that the claims fail to amount to “significantly more than the judicial exception” or contain an “inventive concept” because (1) the additional elements beyond the abstract ideas are generic computer components, such as (i) electronic game (claims 1 and 13); (ii) server computer (claim 13), (iii) computer (claim 13), (iv) computing device (claims 3 and 15), (v) computer readable medium (claim 20) that perform recited functions that are well-understood, routine and conventional; (2) “the combination of elements” “provides nothing more than mere

automation of allocating virtual resources within a game to a consumer based a set of criteria”; and (3) “the additional elements do not [i] improve another technology or technical field, [ii] improve the functioning of a computer itself . . . [iii] improve computer related technology.” Final Act. 4–5.

Alice/Mayo—Step 1 (Abstract Idea)

Turning to the first step of the *Alice* inquiry, Appellant argues the claims relate to “allocating resources to players in an electronic game based on [i] the user’s attributes and [ii] a selected strategy” and, as such, are directed to patent eligible subject matter because they describe “a technology-based solution (provide resources in an electronic game) to a technology-centric problem (determining which one of different strategy rules to select for allocating resources in order to achieve a predetermined allocation objective)” similar to the claims in *McRO*. App. Br. 9–11 (citing *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)). Specifically, Appellant argues the claims “allow a computer providing a virtual game environment to adaptively control the allocation of in-game resources to, for example, maximize monetization of the game, or optimize playing time” and solve “a problem associated with how to adaptively determine which electronic game resources to allocate to a game player playing an electronic game.” App. Br. 11.

Appellant’s arguments are not persuasive. At the outset, we note Appellant’s reliance on *McRO* is misplaced. For example, *McRO*’s ’576 patent (U.S. Patent No. 6,307,576) describes computer software for matching audio to a 3D animated mouth movement to provide lip-synced animation. *McRO*’s claims contain (i) specific limitations regarding a set of

rules that “define[] a morph weight set stream as a function of phoneme sequence and times associated with said phoneme sequence” to enable computers to produce “accurate and realistic lip synchronization and facial expressions in animated characters” (*McRO*, 837 F.3d at 1313) and, when viewed as a whole, are directed to (ii) a “technological improvement over the existing, manual 3–D animation techniques” that uses “limited rules in a process specifically designed to achieve an improved technological result in conventional industry practice.” *McRO*, 837 F.3d at 1316.

In contrast to *McRO*, Appellant’s claims and Specification describe “a system and a method for allocation [of] resources consumed in an electronic game.” Spec. ¶ 2. According to Appellant, “resources” consumed in an electronic game include, for example, “extended playtime, in game ability upgrades, in game items, additional playable characters and/or areas, and removal of ads [advertisements].” Spec. ¶ 4. The resources can also be “various advertisements [presented] to the consumer” and can even be “the ability to turn off[f] advertisement, select a preferred category and/or delivery method for advertisements, or pause advertisements for a period of time.” Spec. ¶ 41. These resources are then allocated to a consumer (e.g., gamer) based on (1) the consumer profile, and (2) one or more strategy rules selected, for example, to maximize (i) revenue (e.g., actual resource purchases and/or advertising revenue), (ii) playtime for each consumer, or (iii) advertisement views. Spec. ¶¶ 3, 61.

As correctly recognized by the Examiner (Ans. 3), using rules (or strategies) to allocate resources within a game environment does not improve any computer functionality or provide any “technological-based solution to a technology-centric problem,” as Appellants argue. App. Br. 9.

In fact, the steps recited in Appellants' claims 1, 13, and 21, such as (1) "collect[ing] . . . consumer (user) attributes" (2) "generat[ing] . . . a consumer (user) profile based on the one or more consumer attributes"; (3) "determin[ing] . . . a first strategy rule . . . based on the consumer profile"; and (4) "allocate[ing] . . . a resource of the [] game to the consumer (user) based on the [i] consumer profile and [ii] the first strategy rule" are akin to "mental processes" that could be performed by a human (game designer) using a pen and paper (via allocating resources to the consumer within a game environment)—a subject matter that falls within the categories of abstract ideas identified by the PTO § 101 Memorandum. *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) ("[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under [§] 101."); *see also In re Comiskey*, 554 F.3d 967, 979 (Fed. Cir. 2009) ("[M]ental processes—or processes of human thinking—standing alone are not patentable even if they have practical application."); *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972) ("Phenomena of nature, . . . *mental processes*, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." (Emphasis added)). Additionally, mental processes remain unpatentable even when automated to reduce the burden on the user of what once could have been done with pen and paper. *CyberSource*, 654 F.3d at 1375 ("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*.").

Alternatively, the term "resources" is described by Appellant's Specification as "various advertisements [presented] to the consumer,"

including “the ability to turn off[f] advertisement, select a preferred category and/or delivery method for advertisements, or pause advertisements for a period of time.” Spec. ¶ 41. According to Appellants’ Specification, the resources are then allocated to a consumer (e.g., gamer) based on (1) the consumer profile, and (2) one or more strategy rules selected, for example, to maximize (i) revenue (e.g., actual resource purchases and/or advertising revenue), (ii) playtime for each consumer, or (iii) advertisement views. Spec. ¶¶ 3, 61.

Based on Appellant’s Specification, the broadest reasonable interpretation of “allocating virtual resources within a game to a consumer [e.g., gamer] based on a set of criteria [i.e., the consumer profile and the selected strategy rule]” as recited in Appellant’s claims 1, 13, and 21 is also plainly directed to a target advertisement in the context of a game environment, i.e., “fundamental economic practice”—a “certain method of organizing human activity”—and is thus a subject matter that also falls within the categories of abstract ideas identified by the PTO § 101 Memorandum. Such activities are squarely within the realm of abstract ideas, like (1) the risk hedging in *Bilski v. Kappos*, 561 U.S. 593 (2010); (2) the intermediated settlement in *Alice*, 573 U.S. at 220; (3) verifying credit card transactions in *CyberSource*, 654 F.3d at 1370; (4) guaranteeing transactions in *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014); (5) distributing products over the Internet in *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014); (6) determining a price of a product offered to a purchasing organization in *Versata Dev. Grp., Inc. v. SAP Am., Inc.*, 793 F.3d 1306 (Fed. Cir. 2015); and (7) pricing a product for

sale in *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359 (Fed. Cir. 2015).

We also discern no additional element (or combination of elements) recited in Appellants' claims 1–19 and 21 that integrates the judicial exception into a practical application. *See* PTO § 101 Memorandum, 84 Fed. Reg. at 54–55 (“Prong Two”). For example, Appellant’s claimed additional elements (e.g., “computer readable medium,” “processor,” “server computer,” “computer”) do not (1) improve the functioning of a computer or other technology, (2) are not applied with any particular machine (except for a generic computer), (3) do not effect a transformation of a particular article to a different state, and (4) are not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception. *See* MPEP §§ 2106.05(a)–(c), (e)–(h).

For these reasons, we agree with the Examiner’s determination that Appellant’s claims 1–19 and 21 are directed to an abstract idea that is not integrated into a practical application.

Alice/Mayo—Step 2 (Inventive Concept)

In the second step of the *Alice* inquiry, Appellant does not argue whether the claims contain an “inventive concept.” Instead, Appellant argues the claims amount to significant more than an abstract idea because:

“the invention recited [] is different from conventional and routine methods for allocating electronic game resources that do not involve a) a plurality of different strategy rules that each define a respective resource allocation objective, b) determining one strategy rule from among the plurality of strategy rules based on a game play profile, and c) allocating the resource of the

electronic game based on both the game player profile and the determined one strategy rule.”

App. Br. 12.

We disagree. Under current Federal Circuit precedent, an “inventive concept” under *Alice* step 2 can be established by showing, for example, that the patent claims:

- (1) provide a technical solution to a technical problem unique to the Internet, e.g., a “solution . . . necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks” (*DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014));
- (2) transform the abstract idea into “a particular, practical application of that abstract idea,” e.g., “installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user” (*BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352, 1350 (Fed. Cir. 2016)); or
- (3) “entail[] an unconventional technological solution ([e.g.,] enhancing data in a distributed fashion) to a technological problem ([e.g.,] massive record flows [that] previously required massive databases)” and “improve the performance of the system itself” (*Amdocs (Israel) Ltd. v. Openet Telecom, Inc.* 841 F.3d 1288, 1300, 1302 (Fed. Cir. 2016)).

Similarly, as recognized by the PTO § 101 Memorandum, an “inventive concept” under *Alice* step 2 can also be evaluated based on whether an additional element or combination of elements:

- (1) add 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 (*see* MPEP § 2106.05(d)); 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 PTO § 101 Memorandum, 84 Fed. Reg. at 56.

In this case, however, we find no element or combination of elements recited in Appellant’s claims 1–19 and 21 that contains any “inventive concept” or adds anything “significantly more” to transform the abstract concept into a patent-eligible application. *Alice*, 573 U.S. at 221–22.

For example, Appellant’s abstract idea of “allocating virtual resources within a game to a consumer based on a set of criteria” is not rooted in computer technology. Nor does it (1) provide any technical solution to a technical problem as required by *DDR Holdings*; (2) provide any particular practical application as required by *BASCOM*; or (3) entail an unconventional technological solution to a technological problem as required by *Amdocs*. Instead, as recognized by the Examiner, the solution proposed by Appellant is “to improve the business strategy (i.e., increase revenue) and not to improve the technology or add significantly more to the abstract idea. Ans. 3. Appellant’s invention simply uses generic computer components (e.g., computing device, game server), shown, for example, in Figures 1–2, to perform the abstract idea of “allocating virtual resources within a game to a consumer.”

The use of generic computer components does not alone transform an otherwise abstract idea into patent-eligible subject matter. As our reviewing court has observed, “after *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim

patent-eligible.” *DDR*, 773 F.3d at 1256 (citing *Alice*, 573 U.S. at 223). Moreover, Appellant has not shown any specific limitation in claims 1, 13, and 21 beyond the judicial exception that is not “well-understood, routine, and conventional” in the field. *See* MPEP § 2106.05(d).

Because Appellant’s claims 1, 13, and 21 are directed to a patent-ineligible abstract concept and do not recite something “significantly more” under the second prong of the *Alice* analysis, we sustain the Examiner’s rejection of claims 1–19 and 21 under 35 U.S.C. § 101.

35 U.S.C. § 103: Claims 1–19 and 21

In support of the § 103 rejection of claims 1, 13, and 21, the Examiner finds Ernst teaches Appellant’s claimed “resource allocation system for optimizing the allocation of resources in electronic games,” shown in Figure 1, including “a processor” configured to: “collect one or more consumer attributes”; “produce a consumer profile” and “allocate a resource of the electronic game to the consumer based on the consumer profile.” Final Act. 6–8 (citing Ernst 3:40–4:5, 7:38–52, 8:38–50).

To support the conclusion of obviousness, the Examiner relies on Lutnick for teaching that the “processor” is also configured to “determine a first strategy rule, from among a plurality of different strategy rules, based on the consumer profile, wherein each of the plurality of different strategy rules define a respective resource allocation objective” and that the resource allocation is also based on the first strategy rule. Final Act. 8 (citing Lutnick 21:25–65; 26:15–25; 84:15–25).

Appellant does not dispute the Examiner’s factual findings regarding Ernst. Instead, Appellant presents several arguments against the Examiner’s

factual findings regarding Lutnick and the Examiner's rationale to combine Ernst and Lutnick. First, Appellant acknowledges that Lutnick teaches target advertisements in the context of target promotions to consumers (players) displayed on a mobile gaming device based on various criteria, but argues that in Lutnick "no resources of an electronic game are being allocated and there are no strategy rules defining resource allocation objectives by which electronic game resources are allocated." App. Br. 15. According to Appellant, Lutnick is limited to "a casino arrangement in which there are mobile gaming devices that a user may be playing and then there are devices that can be controlled to present promotions to the users" and, as such, "choosing an incentive to keep a player within a desired physical area of a casino [as disclosed by Lutnick] is unrelated to allocating a resource of an electronic game based on a strategy rule that defines resource allocation objectives," as recited in the claims. *Id.*

Second, Appellants argue there is no articulated reasoning with rational underpinning to incorporate selected features of Lutnick (i.e., promotion database, the display screens, the desire to keep a player in a physical area) into the determination module of Ernst that determines the cost of in-game virtual resources offered to a user because (1) "Ernst relates to an electronic gaming environment in which a player of the electronic game is offered, at a virtual cost, various virtual resources to be used within the electronic game," whereas (2) "Lutnick . . . relates to a person in a physical casino that may have a mobile gaming device that allows their physical position to be determined." App. Br. 16–17; Reply Br. 6–7.

Appellants' arguments are not persuasive. Instead, we find the Examiner has provided a comprehensive response to Appellants' arguments

supported by evidence. Ans. 4–6. As such, we adopt the Examiner’s findings and explanations provided therein. *Id.* At the outset, we note claim terms are given their broadest reasonable interpretation 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, 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).

Appellant’s claim 1 (and similarly, claims 13 and 21) recites, *inter alia*, “determin[ing] a first strategy rule, from among a plurality of different strategy rules, based on the consumer profile, wherein each of the plurality of different strategy rules define a respective resource allocation objective.” Appellant’s Specification does not provide an explicit and exclusive definition of the claim terms “strategy rule” and “resource allocation objective.” In fact, the term “resource allocation objective” is not described in the Specification. Rather, Appellant’s Specification broadly describes strategy rules as various criteria selected, for example, to maximize (i) revenue (e.g., actual resource purchases and/or advertising revenue), (ii) playtime for each consumer, or (iii) advertisement views. Spec. ¶¶ 3, 12, 60–62. For example, Appellant’s Specification describes:

[0060] In some examples, the strategy rules 312 may be applied similarly to each particular electronic game 132. In some examples, the electronic games 132 may have different sets of strategy rules 312 that are applied to the resources for each respective electronic game. In some examples, the strategy may be different for each consumer and/ or for the same consumer but at different times of play. More particularly the strategy for a particular electronic game may be different depending upon the

consumer's level, average play time, location and time of play, frequency of play time, experience, credits, or the like.

[0061] In some examples, the strategy can be to maximize revenue (e.g., actual resource purchases and/ or advertising revenue). In some examples, the strategy can be to maximize playtime for each consumer. In some examples, the strategy can be to maximize advertisement views. In some examples, the strategy may be to maximize revenue for players having an average playtime above a selected threshold and maximize playtime for players having an average playtime below a selected threshold.

[0062] In some examples, the strategy may be to maximize revenue for players having total playtime above a selected threshold and maximize playtime for players having a total playtime below a selected threshold. In some examples, the strategy may be to maximize revenue for players having a level (e.g., experience, score, or the like) above a selected threshold and maximize playtime for players having a level below a selected threshold.

Spec. ¶¶ 60–62 (emphasis added).

Based on Appellant's Specification, the Examiner has broadly and implicitly interpreted the phrase "strategy rule" selected from "a plurality of different strategy rules" as encompassing Lutnick's various criteria for determining the presentation of promotions (e.g., advertisements) or incentives (i.e., resources) allocated to player(s). Ans. 4–5 (citing Lutnick ¶¶ 23:15–20, 26:15–25, 84:25–35). Likewise, the Examiner has also implicitly interpreted the term "resource allocation objective" as encompassing promotions or incentives to play more games (to keep the player engaged) or increase revenue. Ans. 5–6 (citing Lutnick 84:25–29). We find the

Examiner's interpretation reasonable and consistent with Appellant's Specification.

Obviousness is a question of law based on underlying factual findings, *In re Baxter*, 678 F.3d 1357, 1361 (Fed. Cir. 2012), including what a reference teaches, *In re Beattie*, 974 F.2d 1309, 1311 (Fed. Cir. 1992), and the existence of a reason to combine references, *In re Hyon*, 679 F.3d 1363, 1365–66 (Fed. Cir. 2012).

Because Ernst and Lutnick teach all limitations of Appellant's claims 1, 13, and 21, including Lutnick's various criteria used to present promotions (e.g., advertisements) or incentives (i.e., resources) allocated to player(s) so as to encourage the player(s) to play more games or increase revenue, we are not persuaded that the Examiner's rationale for incorporating Lutnick's teachings into Ernst's electronic game platform to optimize the allocation of resources in electronic games in the manner suggested by the Examiner is not supported by "rational underpinning" as required by *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007), and *In re Kahn*, 441 F.3d 977, 988 (Fed Cir. 2006). Modifying Ernst's electronic game platform with Lutnick's various criteria used to determine the presentation of promotions (e.g., advertisements) or incentives (i.e., resources) in the manner proposed by the Examiner to keep the players engaged and increase revenue would involve nothing more than an obvious combination of prior art elements according to known methods to yield predictable results. *KSR Int'l Co.*, 550 U.S. at 415–16.

Moreover, Appellant has not presented sufficient evidence or argument that incorporating Lutnick's teachings into Ernst's electronic game platform would have been "uniquely challenging or difficult for one of

ordinary skill in the art” or “represented an unobvious step over the prior art.” *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 550 U.S. at 418-19). Nor has Appellant provided objective evidence of secondary considerations, which our reviewing court guides “operates as a beneficial check on hindsight.” *Cheese Systems, Inc. v. Tetra Pak Cheese and Powder Systems*, 725 F.3d 1341, 1352 (Fed. Cir. 2013).

For these reasons, we are not persuaded of Examiner error. Accordingly, we sustain the Examiner’s obviousness rejection of independent claims 1, 13, and 21, and dependent claims 2–12 and 14–19, which Appellant does not argue separately.

CONCLUSION

On the record before us, we conclude Appellant has not demonstrated the Examiner erred in rejecting claims 1–19 and 21 under 35 U.S.C. § 101 and § 103.

DECISION

As such, we AFFIRM the Examiner’s rejection of claims 1–19 and 21 under 35 U.S.C. § 101 and § 103.

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)(iv).

AFFIRMED