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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GERALD D. COLAR, MELANIE R. DIGGS,
JOHN W. MILLER, TERRENCE E. WHITE, and
CHARLES K. YOUNG

Appeal 2019-002106
Application 14/175,008
Technology Center 3700

Before STEFAN STAICOVICI, MICHAEL L. HOELTER, and
WILLIAM A. CAPP, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's decision in the Final Office Action (dated June 6, 2016, hereinafter "Final Act.") rejecting claims 1–15. We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

¹ We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. International Business Machines Corporation is identified as the real party in interest in Appellant's Appeal Brief (filed Sept. 21, 2016, hereinafter "Appeal Br."). Appeal Br. 2.

SUMMARY OF DECISION

We AFFIRM.

INVENTION

Appellant’s invention is directed “to a computer implemented method, data processing system, and computer program product for interspersing educational testing with video game play.” Spec. para. 2.

Claims 1, 6, and 11 are independent.² Claim 1 is illustrative of the claimed invention and is reproduced below (with reference indicators in brackets and emphasis added):

1. A method for regulating game play in an active video game, the method comprising:
 - [i] a computer *receiving* from a teacher an academic goal corresponding to a lesson plan for a multiplicity of students, the academic goal corresponding to a first set of educational questions to present to the students at respective break points occurring during play of the active video game;
 - [ii] the computer *authorizing* a parent of one of the students to modify the academic goal for the one student but not for another of the students, and afterwards [iii] *receiving* from the parent of the one student a modification to the academic goal for the one student but not for the other of the students, and in response, the computer [iv] *correlating* the modified academic goal for the one student to a second, different set of educational questions to present to the one student at the respective break points occurring during play of the active video game, the second set of educational questions for the one student differing from the first set of educational questions presented to the other of the students at the break points;

² In response to the Examiner’s Notice of Defective Appeal Brief, dated Oct. 4, 2016, Appellant filed a supplemental Claims Appendix on Oct. 12, 2016 (hereinafter “Suppl. Claims App.”).

[v] in response to a request by the one student to play the active video game, the computer *executing* the active video game;

[vi] in response to occurrence of one of the break points during execution of the active video game for the one student, the computer *presenting* to the one student one question of the second set of questions, the one question of the second set differing from a question presented to another of the students at the one break point;

[vii] in response to an answer received from the one student to the one question of the second set, the computer *updating* an academic score for the one student to the second set of questions and if the answer is a correct answer, [viii] *implementing* a new game advantage to the one student during continued play of the active video game, and if the answer is incorrect, not implementing the new game advantage to the one student during continued play of the active video game, wherein the new game advantage is an advantage in the manner the active video game is played to the benefit of the one student.

REJECTIONS

- I. The Examiner rejects claims 1–15 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.
- II. The Examiner rejects claims 1, 2, 4–7, 9–12, 14, and 15 under 35 U.S.C. § 103(a) as unpatentable over Jessop³ and Mohanty,⁴ as evidenced by Barnett.⁵

³ Jessop et al., US 2008/0020367 A1, published Jan. 24, 2008.

⁴ Mohanty et al., US 2007/0298401 A1, published Dec. 27, 2007.

⁵ Barnett et al., *Active Video Games for Youth: A Systematic Review*, Journal of Physical Activity and Health, Vol. 8, pp. 724–737 (2011).

- III. The Examiner rejects claims 3, 8, and 13 under 35 U.S.C. § 103(a) as unpatentable over Jessop and Mohanty, as evidenced by Barnett,⁶ and Lockwood.⁷

ANALYSIS

Rejection I

Section 101 states, “[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. However, the Supreme Court has “long held that this provision contains an important implicit exception: [l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *E.g., Alice Corp. Pty. Ltd. 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*. *See Alice*, 573 U.S. 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.” *Id.* 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.”).

⁶ As claims 3, 8, and 13 depend from independent claims 1, 6, and 11, respectively, we view the Examiner’s omission of Barnett in the heading of this rejection as a typographical error.

⁷ Lockwood, US 6,554,618 B1, issued Apr. 29, 2003.

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 water-proof 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.* ((alteration in the 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.*

The PTO has published revised guidance on the application of § 101. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (hereinafter “2019 Guidance”). Under Step 2A of that 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); and
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

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

In the matter before us, Appellant does not present separate arguments for the patentability of independent claims 1, 6, and 11. *See* Appeal Br. 10 (“Claims 1, 6 and 11 . . . stand or fall together.”). Therefore, in accordance with 37 C.F.R. § 41.37(c)(1)(iv), we select claim 1 as the representative claim to decide the appeal of the rejection of these claims, with claims 6 and 11 standing or falling with claim 1.⁸

⁸ Although we appreciate that independent claims 6 and 11 are drawn to a computer program and a computer system, respectively, as claims 6 and 11 recite similar limitations to claim 1, “the basic character of a process claim drawn to an abstract idea is not changed by claiming only its performance by computers, or by claiming the process embodied in program instructions on a computer readable medium.” *See CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375–76 (Fed. Cir. 2011) (citing *In re Abele*, 684 F.2d 902 (CCPA 1982)).

Step 1 – Statutory Category

We first determine whether independent claim 1 recites one or more of the enumerated statutory classes of subject matter, i.e., process, machine, manufacture, or composition of matter, eligible for patenting under 35 U.S.C. § 101. Here, independent claim 1 recites “[a] method for regulating game play in an active video game” (i.e., a “process”). *See* Appeal Br. 18 (Suppl. Claims App.). Thus, independent claim 1 recites a recognized statutory category under 35 U.S.C. § 101.

Step 2A, Prong 1 – Recitation of Judicial Exception

We next look to whether independent claim 1 recites any judicial exceptions, including certain groupings of abstract ideas, i.e., mathematical concepts, certain methods of organizing human activity, or mental processes.

In determining that independent claim 1 constitutes a judicial exception to patent eligibility, the Examiner determines that the claim recites “the abstract idea of interspersing educational testing with game play.” Final Act. 2. According to the Examiner, the steps of claim 1 “correspond[] to concepts identified as abstract ideas by the courts, such as comparing new and stored information and using rules to identify options [as] in *SmartGene[, Inc. v. Advanced Biological Labs.]*, 555 F. App’x 950 (Fed. Cir. 2014)]. Final Act. 3. In the alternative, the Examiner determines that claim 1 recites an abstract idea because the steps of claim 1 could be performed in the human mind by a human using pen (or pencil) and paper. *Id.* (citing *CyberSource*, 654 F.3d at 1373). Hence, the Examiner determines that claim 1 recites a *mental process*, that is, a process “comparing new and stored

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information and using rules to identify options,” which describes the concept of interspersing educational testing with game play. Ans. 13 (citing Final Act. 3).⁹

The 2019 Guidance provides that “[m]ental processes—concepts performed in the human mind¹¹ (including an observation, evaluation, judgment, opinion)” are abstract ideas. 2019 Guidance 50, 52. A claim recites a mental process when the claim encompasses acts people can perform using their minds or pen and paper. *See, e.g., CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372–73 (Fed. Cir. 2011) (determining that a claim whose “steps can be performed in the human mind, or by a human using a pen and paper” is directed to an unpatentable mental process). This is true even if the claim recites that a generic computer component performs the acts. *See, e.g., Versata Development Group, Inc. v. SAP America, Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person’s mind.”); *see also* 2019 Guidance 52 n.14 (“If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.”).

First, we agree with the Examiner that Appellant does not “present[] any rebuttal arguments or evidence” regarding the Examiner’s finding that the steps of claim 1 recite the abstract idea of “comparing new and stored information and using rules to identify options [as] in *SmartGene*.” Ans. 14. Second, we agree with the Examiner that claim 1

recite[s] the step[s] of receiving an academic goal, authorizing a parent to modify the goal and afterward receiving a modification to the goal, correlating the modified goal to

⁹ Examiner’s Answer, Jan. 23, 2018.

questions, presenting one question from the questions, and updating an academic score, which describes the concept of interspersing educational testing with game play.

Id. at 13. Hence, we agree with the Examiner that absent the use of a “computer,” claim 1 recites a method that is capable of being performed mentally, or by a human using pen and paper. Final Act. 3.

In particular, claim 1 encompasses process steps that a person can perform using pen and paper such as receiving an academic goal corresponding to a first set of written questions from a teacher (as per limitation [i]), receiving a written modification of the academic goal from a parent (as per limitation [iii]), presenting to the student a question from a written second set of questions (as per limitation [vi]), and manually updating an academic score (as per limitation [vii]).¹⁰ Claim 1 further encompasses process steps that can be performed entirely in the human mind such as authorizing (judgment, evaluation) a parent to modify the academic goal (as per limitation [ii]) and correlating (judgment, evaluation) the modified academic goal to a second set of questions (as per limitation [iv]).

In conclusion, for the foregoing reasons, we determine that independent claim 1 recites a *mental process* that could be performed mentally, or by a human using pen and paper, which describes the concept of interspersing educational testing with game play, and which, under the 2019 Guidance, constitutes an abstract idea. We do not agree with Appellant’s position that because “a video game begins and ends in a computer,” “[t]here is no abstract-idea analog [in claim 1] that operates without a computer” because “video games . . . are [not] capable of being played with pen and paper.” Appeal Br. 11. The Examiner is correct that

¹⁰ As per Appellant’s Specification an academic score can be determined as a mere division between the total points obtained for correct answers and the total points available for all questions. *See Spec.* para. 34.

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even though “a method can only be performed using a computer does not necessarily render Section 101 inapplicable.” Ans. 15.

Moreover, Appellant’s arguments appear to concern whether claim 1 recites an integrated application under the 2019 Guidance. Accordingly, we address the process steps of “the computer executing the active video game” (as per limitation [v]) and “implementing a new game advantage . . . in the manner the active video game is played” (as per limitation [viii]) under *Step 2A, Prong 2* and *Step 2B*.

Step 2A, Prong 2 – Integrated Into a Practical Application

If a claim recites a judicial exception, then, in *Prong 2*, 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. *See* 2019 Guidance 54–55. This evaluation 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 id.* at 54.

We note the 2019 Guidance indicates that in the context of *Prong 2* of Step 2A, an exemplary consideration indicative that an additional element (or combination of elements) may have integrated the exception into a practical application is that an additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field. *See id.* at 55.

In this case, the Examiner finds that “the additional limitations of a computer . . . ‘for regulating game play in an active video game’ [and] ‘executing

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active video game’,” as per independent claim 1, “is akin to adding the words ‘apply it’ in conjunction with the abstract idea” and “[s]uch limitations are not enough to add significantly more to the claimed invention.” Final Act. 3–4.

In response, Appellant argues that because “a video game begins and ends in a computer,” the method of claim 1 cannot operate without a computer, “improves the function of the computer,” and, thus, “fall[s] within the *DDR Holdings* safe harbor.” Appeal Br. 11.¹¹

We are not persuaded by Appellant’s arguments because claim 1 does not recite additional elements sufficient to elevate the abstract idea of mental processes to a patent-eligible application. Specifically, applying the abstract idea on a “computer” for “executing the active video game” (as per limitation [v]) and for “implementing a new game advantage . . . in the manner the active video game is played” (as per limitation [viii]) does not constitute an integration. *See Alice*, 573 U.S. at 223 (“[M]ere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.”) (quoting *Mayo*, 566 U.S. at 72). Claim 1 does not require using any particular *computer technology* to achieve a technological improvement in the environment of interspersing educational testing with video game playing. *See* Ans. 14–15. The Examiner is correct that in contrast to *DDR Holdings*, the concept of interspersing educational testing with video game playing is not rooted in computer technology, but rather in “educational testing.” *See id.* at 14–15.

Appellant’s Specification describes the “computer” for “executing the active video game” (as per limitation [v]) and “implementing a new game advantage . . . in the manner the active video game is played” (as per limitation

¹¹ Appellant’s reference to “*DDR Holdings*” is to *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014).

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[viii]) at a high level of generality as including generic components. In particular, Appellant's "computer" 100 includes, *inter alia*, processor 106, graphics processor 110, main memory 108, read only memory 124, hard disk drive 126, CD-ROM drive 130, keyboard and mouse adapter 120, modem 122, communication ports 132, PCI components 134, bus 138, 140, I/O controller hub 104. *See* Spec. paras. 15, 16. Furthermore, we note that the "computer" is recited in claim 1 *functionally* as "receiving from a teacher . . . a first set of educational questions," "authorizing a parent . . . to modify the academic goal," "receiving from the parent . . . [and] correlating the modified academic goal . . . to a second . . . set of educational questions," "executing the active video game," "presenting to the . . . student one question of the second set of questions," "updating an academic score," and "implementing a new game advantage . . . in the manner the active video game is played." *See* Appeal Br. 18, Suppl. Claims App. As such, claim 1 does not apply, rely on, or use the recited "computer" in a manner that adds meaningful limits to the recited steps. Instead, the reference to this generic "computer" is no more than mere instructions to apply the recited step by using this computer. *See* MPEP § 2106.05(f)(2) ("Use of a computer or other machinery in its ordinary capacity for . . . tasks (*e.g.*, to receive, store, or transmit data) . . . does not provide significantly more.").

Moreover, the Examiner is correct that using a generic "computer" for "executing the active video game" (as per limitation [v]) and "implementing a new game advantage" (as per limitation [viii]) "through an unspecified interface does not impose any meaningful limit on the computer implementation of the abstract idea." Final Act. 4. Therefore, we agree with the Examiner that the recited "computer" in claim 1 does not provide an improvement to computer technology because "all the video game related limitations are merely well-known and do[] not overcome the challenges in the video game technology." Ans. 15.

As such, for the foregoing reasons, claim 1 merely uses a generic computer to implement the abstract process. *See Smart Systems Innovations v. Chicago Transit Authority*, 873 F.3d 1364, 1372–73 (Fed. Cir. 2017)) (“The claims are not directed to a combined order of specific rules that improve any technological process, but rather invoke computers in the collection and arrangement of data. Claims with such character do not escape the abstract idea exception under *Alice* step one.”).

Thus, we determine that the recited “additional element[s] merely recite[] the words ‘apply it’ (or an equivalent) with the judicial exception, or merely includes instructions to implement an abstract idea on a computer, or merely uses a computer as a tool to perform an abstract idea.” 2019 Guidance 55.

Accordingly, Appellant’s claim 1:

- (1) does not improve the functioning of a computer or other technology;
- (2) is not applied with any particular machine;
- (3) does not affect a transformation of a particular article to a different state;
- (4) does not add more than insignificant extra-solution activity; and
- (5) is not applied in any meaningful way beyond generally linking the use of the judicial exception to a particular technological environment. *See* MPEP § 2106.05(a)–(c), (f), (g).

In conclusion, we are not persuaded of error in the Examiner’s determination that claim 1 is directed to an abstract idea, and we find that the claimed additional elements do not integrate the abstract idea into a practical application.

Step 2B – Well-Understood, Routine, Conventional Activity

Having determined that claim 1 recites a judicial exception, and does not integrate that exception into a practical application, under *Step 2B* we consider

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whether the claim adds a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field. *See* 2019 Guidance 56.

The Examiner finds that claim 1 does not include additional elements that are sufficient to amount to significantly more than the judicial exception because the recited “computer” is merely a generic computer performing well-understood, routine, and conventional functions. *See* Final Act. 4–5.

Appellant argues that claim 1 “cannot function without performing video game functions – a problem area that begins and ends with computers, and for which, computers are anything but incidental to its operation.” Appeal Br. 10. Thus, according to Appellant, claim 1 “improves the function of the computer.” *Id.* at 11. In other words, Appellant argues that claim 1 constitutes a technological improvement in the field of video gaming because a “computer” is absolutely necessary for the claimed invention to function, and, thus, is “significantly more” than any abstract idea.

We are not persuaded that the Examiner erred in determining that the elements of claim 1, considered both individually and as an ordered combination, do not amount to significantly more than the abstract idea itself. As discussed *supra*, the recited “computer” is invoked as a conventional tool. Apart from being used to perform the recited steps, the recited “computer” only serves to perform well-understood functions (e.g., receiving, storing, analyzing, and outputting data). For example, limitations [i] and [iii] receive data; limitations [ii], [iv], and [vii] of “authorizing,” “correlating,” and “updating” analyze data, and limitation [vi] of “presenting” outputs data. *See FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1096 (Fed. Cir. 2016) (“[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter.”).

We are also not persuaded by Appellant’s contentions because the technological improvement in the field of video gaming that Appellant alludes to, namely, limitations [v] and [viii] of claim 1, in fact, recite a result without specifying a way of achieving the result. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (Eligible “claims . . . transform[ed] a claim from one claiming only a result to one claiming a way of achieving it.”). Here, we agree with the Examiner that using a “computer” to “execut[e] the active video game” (as per limitation [v]) and to “implement[] a new game advantage . . . in the manner the active video game is played” (as per limitation [viii]) is “well-known and does not overcome the challenges in the video game technology.”
Ans. 15.

As such, Appellant’s arguments do not establish that the claimed invention contains an arrangement of non-conventional elements that exist solely in a technical/computer field and solve a specific computer/technological problem. Appellant does not show, with persuasive evidence, that the recited “computer” is more than a generic computer that is used as a tool to perform the abstract ideas. Accordingly, claim 1 fails to add a specific limitation beyond the judicial exception that is not “well-understood, routine, conventional” in the field, and, thus, fails to indicate the presence of an inventive concept. Therefore, we conclude that none of the limitations of claim 1, viewed “both individually and as an ordered combination,” amount to significantly more than the judicial exception in order to sufficiently transform the nature of the claims into patent-eligible subject matter. *See Alice*, 573 U.S. at 217–218.

In conclusion, for the foregoing reasons, we sustain the rejection of claim 1 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Claims 6 and 11 fall with claim 1.

As Appellant does not separately argue dependent claims 4, 5, 9, 10, 14, and 15, for the same reasons discussed above, we also sustain the rejection of these claims as being directed to non-statutory subject matter. *See* Appeal Br. 11–13.

Claims 2, 3, 7, 8, 12, and 13

The Examiner finds that “the dependent claim(s) recite(s) the same abstract idea” and the additional limitation of a “pass-code” is “no more than a generic computer to perform generic computer functions that are well understood, routine and conventional activities previously known to the industry.” Final Act. 5.

Appellant argues that the Examiner does not perform an “Alice-style analysis” of dependent claims 2, 3, 7, 8, 12, and 13, and, thus, “fails to meet its burden in arguing against the §101 subject matter eligibility”. Appeal Br. 12. According to Appellant, the Examiner “has repeatedly failed to consider whether the additional features of claims 2-3, as well as claims 7-8 and 12-13, are anything more than convention, routine, or well understood.” *Id.*

Although we appreciate that the Examiner has not written a separate rejection for each of dependent claim 2, 3, 7, 8, 12, and 13, nonetheless, the Examiner did consider *each* of these claims when finding that “the dependent claim(s) recite(s) the same abstract idea.” *See* Final Act. 5; Ans. 17. More specifically, we agree with the Examiner that the limitations of dependent claims 2, 3, 7, 8, 12, and 13 recite the same abstract idea of a *mental process* that could be performed mentally, or by a human using pen and paper, which describes the concept of interspersing educational testing with video game playing. *See* Appeal Br. 18. Hence, adding narrowing limitations, as per dependent claims 2, 3, 7, 8, 12, and 13, that are themselves abstract, does not suffice to transform the claimed abstract idea into patent-eligible subject matter, and, thus,

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add *nothing beyond* the abstract idea set forth in independent claims 1, 6, and 11, from which these claims depend, respectively.

Furthermore, the Examiner is correct that even assuming *arguendo* that “the limitations [of dependent claims 2, 3, 7, 8, 12, and 13] are considered as additional elements,” Appellant’s Specification describes modifying a game scoring algorithm in response to a student’s correct answers as conventional, routine, or well understood. Ans. 18 (citing Spec. para. 5). Moreover, like the Examiner, we find that “[t]here is no indication that the combination of elements [of dependent claims 2, 3, 7, 8, 12, and 13] improves the functioning of a computer or improves any other technology.” *Id.*

In conclusion, as Appellant provides no substantive explanation as to why any of dependent claims 2, 3, 7, 8, 12, and 13 recites something significantly more than the abstract idea recited in their respective independent claims, dependent claims 2, 3, 7, 8, 12, and 13 are likewise patent-ineligible.

Rejection II

Claim Construction

Appellant and Examiner do not agree on the construction of the phrase “active video game,” as recited in claim 1. *Compare* Final Act. 7 *with*, Appeal Br. 14 (citing Spec. para. 46).

In particular, the Examiner finds that because Appellant’s “[S]pecification does not provide [an] explicit definition of the amended term ‘active video game’,” it is appropriate to rely on the disclosure of Barnett to determine the meaning of the phrase “active video game.” According to the Examiner, Barnett discloses that an ordinary and customary meaning of the phrase “active video game,” as understood by a person of ordinary skill in the art, is a game “controlled by body movements greater than the finger and wrist movement

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typical of hand controller based games (e.g., games in the role playing, maze, fighter, and construction and management genres).” Final Act. 7 (emphasis omitted).

Appellant contends that the Examiner’s reliance on Barnett muddles the meaning of the phrase “active video game” because the Specification’s description of a “break point . . . [as] ‘a point in the game where reflexes are not needed to advance game play’” *implies* that “reflexes must play a part when advancing game play . . . [in] the active video game.” Appeal Br. 14 (citing Spec. para. 46).

Although we appreciate the Examiner’s position that Barnett discloses the meaning of the phrase “active video game,” as understood by a person of ordinary skill in the art, we note that 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). Accordingly, in light of Appellant’s Specification, we agree with the Examiner that an ordinary and customary meaning of the phrase “active video game,” as understood by a person of ordinary skill in the art, is a “video game providing [an] educational break point when active game play ceases . . . [such as] summing up a score, or introducing [an] objective, where reflexes are not needed to advance game play.” Ans. 23 (emphasis omitted).

Obviousness Based Upon Jessop and Mohanty, as evidenced by Barnett

Appellant does not present separate arguments for the patentability of claims 1, 2, 4–7, 9–12, 14, and 15. *See* Appeal Br. 13–17. Therefore, we select claim 1 as the representative claim to decide the appeal of the rejection of these claims, with claims 2, 4–7, 9–12, 14, and 15 standing or falling with claim 1.

The Examiner finds that Jessop discloses “a method . . . for regulating game play in an active video game.” Final Act. 8. According to the Examiner, “under

the broadest reasonable interpretation, the definition of active video game comprises ‘games in the role playing games’, which . . . Jessop teaches.” *Id.*

Appellant argues that “Jessop teaches away from the claimed active video game” because Jessop explicitly discloses the negative impact of video games and at the same time discloses a “role-playing” video game. Appeal Br. 16–17 (citing Jessop, paras. 5, 39, 43) (emphasis omitted). Furthermore, Appellant asserts that the disclosures of Jessop and Barnett are “exclusionary” because Barnett’s disclosure of an “active video game” does not encompass Jessop’s “role-playing” games. *Id.* at 14–15 (citing Barnett, p. 725, col. 1, ll. 17–22; Jessop, Abstract).

We do not agree that Jessop teaches away from the claimed “active video game” because Appellant does not point to any passage in Jessop that “criticize[s], discredit[s], or otherwise discourage[s]” an “active video game.” *See In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004) (prior art does not teach away from claimed subject matter merely by disclosing a different solution to a similar problem unless the prior art also criticizes, discredits or otherwise discourages the solution claimed). As discussed *supra*, like the Examiner, we construe the phrase “active video game” to mean a “video game providing [an] educational break point when active game play ceases.” Ans. 23 (emphasis omitted). Here, Jessop discloses a “role-playing” video game in which progress through a game’s storyline depends on the player correctly answering educational questions. *See Jessop*, Abstract, paras. 85, 86, 98.

In other words, in Jessop, game playing ceases and questions are presented to the player in order to advance through the game’s storyline. A skilled artisan would readily recognize that when the player is answering the educational questions, active game play has ceased, and, thus, reflexes are not required to advance game play. *See In re Jacoby*, 309 F.2d 513, 516 (CCPA 1962) (An artisan must be presumed to know something about the art apart from what the

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references disclose.). As such, we agree with the Examiner that Jessop discloses an “active video game,” as understood by a skilled artisan, in light of Appellant’s Specification. *See* Ans. 23.

Further, although we appreciate Appellant’s position that Barnett’s disclosure of an “active video game” does not encompass Jessop’s “role-playing” games (*see* Appeal Br. 14–15), nonetheless, we are not persuaded because such an argument is not commensurate with the Examiner’s rejection, which “does not require adding any limitation[s] from the Barnett reference.” Ans. 26–27. The Examiner employed the disclosure of Barnett as evidence of how a person of ordinary skill in art would reasonably construe the phrase “active video game.” *Id.* at 25; *see e.g., In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999) (“Prior art references may be ‘indicative of what all those skilled in the art generally believe a certain term means . . . [and] can often help to demonstrate how a disputed term is used by those skilled in the art.’”). Moreover, the Examiner is correct that a “role-playing” video game can be an “active video game” because the video game genre, i.e., “role-playing,” is not limited by the game type, i.e., “active video game.” *See* Ans. 26 (providing an example of a well-known video game *Zelda*TM that is “released in various game types, ex. console, desktop, mobile and active video game, ex. Wii.”).

Lastly, we also do not agree with Appellant that Jessop’s disclosure of video games having a “negative impact” on the educational and social development of children constitutes a teaching away from the claimed “active video game.” *See* Appeal Br. 16 (citing Jessop, para. 5). Appellant’s reliance is misplaced because Jessop does not “criticize, discredit or otherwise discourage” playing video games, but rather promotes combining video game playing with educational tools. *See* Jessop, para. 11 (“desirable to provide new educational tools and techniques that utilize the technological advances that have been

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developed in the gaming industry”). Thus, the Examiner is correct that Jessop’s paragraph 5 merely “describes challenges in the education field utilizing games.”
Ans. 27.

In conclusion, for the foregoing reasons, we sustain the rejection under 35 U.S.C. § 103(a) of independent claim 1 as unpatentable over Jessop and Mohanty, as evidenced by Barnett. Claims 2, 4–7, 9–12, 14, and 15 fall with claim 1.

Rejection III

Appellant does not present substantive arguments with respect to Rejection III. *See* Appeal Br. 13–17. Therefore, we summarily sustain the rejection under 35 U.S.C. § 103(a) of claims 3, 8, and 13 as unpatentable over Jessop and Mohanty, as evidenced by Barnett, and Lockwood.

CONCLUSION:

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–15	101	Eligibility	1–15	
1, 2, 4–7, 9–12, 14, 15	103(a)	Jessop, Mohanty, Barnett	1, 2, 4–7, 9–12, 14, 15	
3, 8, 13	103(a)	Jessop, Mohanty, Barnett, Lockwood	3, 8, 13	
Overall Outcome			1–15	

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