IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF NORTH CAROLINA
WESTERN DIVISION

No. 5:18-CV-383-FL

UBISOFT ENTERTAINMENT, S.A. and)
UBISOFT, INC.,)
)
Plaintiffs,)
)
v.)   ORDER
)
YOUSICIAN OY,)
)
Defendant.)

This matter is before the court on defendant's motion to dismiss, pursuant to Federal Rule

of Civil Procedure 12(b)(6). (DE 11). The motion has been fully briefed, and in this posture the

issue raised are ripe for ruling. For the reasons that follow, the court grants defendant's motion.

BACKGROUND

On August 1, 2018, plaintiffs, developers and publishers of the video game Rocksmith and

owners of United States Patent Number 9,839,852 ("the '852 patent"), entitled "interactive guitar

game," initiated this suit asserting claims against defendant, a software provider for learning to play

musical instruments, for direct, induced, and contributory infringement in violation of 35 U.S.C.

§ 271.

Defendant filed the instant motion to dismiss November 29, 2018, arguing that plaintiffs'

patent claims are directed to an abstract idea and therefore fail to cover patentable subject matter

under 35 U.S.C. § 101.

STATEMENT OF FACTS

The facts alleged in plaintiffs' complaint relevant to the resolution of the instant motion are summarized as follows.

The '852 patent discloses software for learning to play a musical instrument, such as the guitar.[1] The specification criticizes "[c]onventional learning tools and sources of instructional information for learning to play a musical instrument," which "include music teachers, music books, audio tapes or compact disks (CDs), and video tapes," as "limited in the quality of instruction or the manner in which the information is presented," whereas the present invention provides an "effective way to provide interactive method and system for learning and practicing a musical instrument, which provides both audio and visual feedback, and an integrated learning approach." '852 patent, col. 1, ll. 26-32, 57-60.[2]

Claim one of the '852 patent recites:

1.   A non-transitory computer readable storage medium with a computer program stored thereon, wherein the computer program is operable to present an interactive game for playing a song on a guitar, wherein the computer program instructs one or more processors to perform the steps of:

> presenting, on a display device, a plurality of fingering notations
> corresponding to the song to be played by a user;

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[1]   Where the '852 patent is attached to and referenced in plaintiffs' complaint, found at document entry 1-1, the court may properly consider its contents in ruling on the instant motion. See Sec'y of State for Defence v. Trimble Navigation Ltd., 484 F.3d 700, 705 (4th Cir. 2007) (internal citations omitted) (When ruling on a motion to dismiss, the court may consider the facts as alleged in the complaint, "documents attached to the complaint, . . . [and documents] attached to the motion to dismiss, so long as they are integral to the complaint and authentic.").

[2]   Specifically regarding music teachers, the specification states that although such a teacher "provides personally-tailored instruction," such instruction can be costly, limited in both time and depth, may limit the student's creativity and spontaneity, and practice materials provided may be static and "therefore unable to accommodate and adjust to the student's individual progress or proficiency." '852 patent, col. 1, ll. 33-42.

receiving, from a guitar input device, an analog or digital audio signal when the guitar is played by the user, wherein the received signal corresponds to the song played by the user;

assessing a performance of the song as played by the user,

based on the assessed performance, determining a portion of the performance that should be improved;

based on the assessed performance and the determined portion of the performance that should be improved, selectively changing a difficulty level of at least a portion of the presented plurality of fingering notations corresponding to the song; and generating at least one mini-game different from the game for the song being played targeted to improving the user's skills associated with the performance of the determined portion.

Id., col. 20, ll. 21-43. Dependant claim two further specifies the way in which the difficulty level is changed by "changing a frequency or a speed of the presented plurality of fingering notations." Id., col. 20, ll. 47-48. Dependant claim three requires "selectively changing a difficulty level is performed in real time during the playing of the song." Id., col. 20, ll. 50-51. Dependant claim four specifies that "the guitar is one of an acoustic guitar or an electric guitar." Id., col. 20, ll. 53-54. Dependant claim six requires that "the computer program instructs the processor to assess past performances of the user and recommend appropriate songs based on a skill level of the user as determined from the past performances." Id., col. 20, ll. 64-67.[3]

Plaintiffs allege that assessing a user's performance for improvement and selectively changing the difficulty level of a song based on that performance, as claimed in the '852 patent, is

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[3]   Plaintiffs have asserted that defendant "has infringed, and continues to infringe one or more claims of the '852 Patent, including without limitation claims 1, 2, 3, 4, and 6." (Compl. (DE 1) ¶ 25). In briefing, plaintiffs have "specifically reserve[d] the right to assert additional claims in its infringement contentions pursuant to the Court's Local Patent Rules." (DE 17 at 2 n.1). Plaintiffs do not specify a particular rule under the court's local patent rules nor offer further explanation of this assertion. Notwithstanding plaintiffs' reservation, the court will address plaintiffs' allegations regarding the specific claims identified by plaintiff in complaint that plaintiff alleges defendant has infringed, which do not include any claims not addressed by defendant's motion to dismiss.

an improvement on the prior art that utilizes computer programming to receive and assess audio signals from a guitar and selectively change the difficulty level to be played by the user and/or generate a different game targeted to improve the user's skills based on the user's performance.

DISCUSSION

A.   Standard of Review

"To survive a motion to dismiss" under Rule 12(b)(6), 'a complaint must contain sufficient factual matter, accepted as true, to 'state a claim to relief that is plausible on its face.'" Ashcroft v. Iqbal, 556 U.S. 662, 663 (2009) (quoting Bell Atl. Corp. v. Twombly, 550 U.S. 544, 570 (2007)). "Factual allegations must be enough to raise a right to relief above the speculative level." Twombly, 550 U.S. at 555. In evaluating whether a claim is stated, "[the] court accepts all well-pled facts as true and construes these facts in the light most favorable to the plaintiff," but does not consider "legal conclusions, elements of a cause of action, . . . bare assertions devoid of further factual enhancement[,] . . . unwarranted inferences, unreasonable conclusions, or arguments." Nemet Chevrolet, Ltd. v. Consumeraffairs.com, Inc., 591 F.3d 250, 255 (4th Cir. 2009) (citations omitted).

B.   Analysis

Defendant moves for dismissal of the instant complaint, asserting the claims at issue of the '852 patent are invalid under 35 U.S.C. § 101. Patent eligibility under 35 U.S.C. § 101 is a question of law, which properly may be decided on a Rule 12(b)(6) motion. See OIP Techs., Inc., v. Amazon.com, Inc., 788 F.3d 1359, 1362 (Fed. Cir. 2015). Courts may resolve questions of patent eligibility under § 101 before engaging in formal claim construction. See Genetic Techs. Ltd. v.

Merial L.L.C., 818 F.3d 1369, 1373 (Fed. Cir. 2016); Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada (U.S.), 687 F.3d 1266, 1273 (Fed. Cir. 2012).[4]

Under 35 U.S.C. § 101, a patent may be obtained for "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. The Supreme Court has long held that "[l]aws of nature, natural phenomena, and abstract ideas" are excepted from § 101 and thus, are not patent-eligible. Alice Corp. Pty. Ltd., v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014) (internal quotations omitted). However, since "all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas" at some level, "an invention is not rendered ineligible from patent simply because it involves an abstract concept." Id. (internal citations omitted).

The Supreme Court has delineated a two-step process for "distinguishing patents that claim of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." Id. at 2355. The first step requires the court to determine whether the patent claims at issue are directed toward an abstract idea. Id. If the court concludes the claims are directed to an abstract idea, it proceeds to the second step. Id. At the second step, the court determines whether the patent contains an "inventive concept"– that is, whether there exists "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. (internal quotations omitted).

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[4] The parties do not identify any claim terms that require construction prior to deciding this motion. Accordingly, this court may resolve the instant motion without engaging in claim construction. See e.g., Content Extraction & Transmission L.L.C., v. Wells Fargo Bank, N.A., 776 F.3d 1343, 1349 (Fed. Cir. 2014).

The '852 patent is directed toward the abstract idea of teaching guitar by evaluating a user's performance and generating appropriate exercises to improve that performance. Claim one provides for the following basic steps, to be performed by a computer:[5] 1) presenting fingering notations corresponding to a song, 2) listening to a user's performance of that song, 3) assessing the performance and determining a portion that should be improved, 4) based on the assessment, selectively changing a difficulty level of a portion of the fingering notation, and 5) generating a "mini-game" to improve the user's skill for that portion.[6] A typical music teacher performs these steps when teaching a musical instrument.[7]

Apple Inc. v. Ameranth, Inc., 842 F.3d 1229 (Fed. Cir. 2016) is instructive. The patents in suit in Apple were directed to a system that aimed to computerize the practice of "ordering prepared foods." Id. at 1235. The concept of ordering prepared foods had "historically been done verbally," and using the methods described in the patents could be accomplished via a wireless handheld

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[5]   Review of the specification of the patent at issue reveals no claim to any new hardware or other technology, specifically referring only generically to a "computer or platform" that is "capable of loading music, such that it can be displayed on a display screen in multiple ways, and allows the user to read the music and play along." '852 patent, col. 4, ll. 8-13. Although plaintiffs make mention that the "guitar input device" is non-generic, no description of such device is found in the specification. See id., col. 4, ll. 41-58 (stating only "signal processing module 206" receives a signal "taken directly from a standard guitar out").

[6]   Plaintiffs disagree that "listening" is akin to "process[ing] the analog signal," arguing, without more, this "suggestion is unsupported and contrary to the specification." (DE 17 at 11 n.3). However, the only reference to the analog signal in the specification is as follows, which does not support plaintiffs' argument: "The note manager 209 may process the analog or digital audio signal (such as a MIDI signal or signal of another format), and compare it against the selected song," further describing that the signal may be composite or discrete, may be received from a guitar out cable or hex pickup, and "may be processed and used to provide feedback on the location, positioning, attack, velocity and action as the user plays their guitar." '852 patent, col. 4, ll. 46-58.

[7]   Showing a student how to play, listening to a student play, assessing a student playing, and creating exercises of various difficulty levels, including increasing difficulty levels with regard to fingering notations the building blocks of teaching an instrument and is specifically provided for, for example, in copyright law. See § 8:30 Permissible educational uses for copying music, 1 Copyright Law in Business and Practice § 8:30 (rev. ed.) ("Where an educational institution or a teacher owns a sound recording of copyrighted music, a single copy may be made for the purpose of constructing aural exercises or examinations . . . . a primary school band teacher may, for example, purchase sheet music for a modern work calling for 20 different instruments, and then edit and simplify the work for her band, provided the basic character of the work is not altered.").

device on the Internet. Id. Although the patent claims at issue included physical elements such as a "central processing unit," a "data storage device," and a "graphical user interface" with certain windows and formats, id. at 1234, the United States Court of Appeals for the Federal Circuit held that they were directed to an abstract idea under step one of Alice, the idea of "taking orders from restaurant customers on a computer," id. at 1241.

In so holding, the Federal Circuit stated as follows:

> The step one inquiry focuses on determining "whether the claim at issue is 'directed to' a judicial exception, such as an abstract idea." McRO, Inc. [v. Bandai Namco Games Am. Inc., 837 F.3d 1299, 1312 (Fed. Cir. 2016)]. We determine whether the claims "focus on a specific means or method that improves the relevant technology" or are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." Id. at 1314. We affirm the Board's conclusion that the claims in these patents are directed to an abstract idea. The patents claim systems including menus with particular features. They do not claim a particular way of programming or designing the software to create menus that have these features, but instead merely claim the resulting systems. Id. Essentially, the claims are directed to certain functionality—here, the ability to generate menus with certain features. Alternatively, the claims are not directed to a specific improvement in the way computers operate.

Id. at 1241.

Here too, the claims at issue do not claim a particular way of programming or designing the software, in order to teach guitar by evaluating a user's performance and generating appropriate exercises to improve that performance, but instead merely claim the resulting systems. Plaintiffs' claims are focused on a certain functionality and are not directed to a specific improvement in the way computers operate. Indeed, the '852 patent's specification does not describe an improvement regarding operating computers and states instead "[t]he invention may be applied as a standalone game engine system or as a component of an integrated software solution," and that "the processes

presented herein are not inherently related to any particular computer, processing device, article or

other apparatus." '852 patent, col. 1, l. 67; col. 2, ll. 1-2, 22-24.

As argued by defendant, <u>Apple</u> is consistent with the proposition that claims focused on the

use of "generic computer network technology" to perform "a well-established, real world practice"

are directed to ineligible subject matter. <u>Intellectual Ventures I LLC v. J. Crew Grp., Inc.</u>, No.

6:16-CV-196-JRG, 2016 WL 4591794, at *4 (E.D. Tex. Aug. 24, 2016), <u>aff'd sub nom.</u> <u>Intellectual</u>

<u>Ventures I LLC v. FTD Companies, Inc.</u>, 703 F. App'x 991 (Fed. Cir. 2017). This is because claims

directed to "collecting information, analyzing it, and displaying certain results of the collection and

analysis," without some sort of identified and claimed technological improvement, "fall into a

familiar class of claims 'directed to' a patent-ineligible concept." <u>Elec. Power Grp., LLC v. Alstom</u>

<u>S.A.</u>, 830 F.3d 1350, 1353 (Fed. Cir. 2016).

In short the claims at issue and specification describe at length what this computer game can

do in order to teach a user how to play an instrument, activities which have been historically

employed by music teachers, but the claims and specification do not delve into how.[8] <u>See, e.g.,</u> '852

patent, col. 10, ll. 1-8 ("If a user has trouble with a particular section of a song, the user (or the game

engine) may switch to a carousel view and have the user repeat that section until the user improves.

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[8]   In response to this argument, that the patent in suite does not explain "how" the computer/platform performs
the claimed steps, plaintiffs refer, in general, to "the '852 patent claims, the specification, the prosecution history, and
Ubisoft's allegations in the Complaint, but also by Yousician's own Motion, which specifically identifies portions of
the specification <u>that disclose technology</u> for processing a signal from a guitar, assessment of the user's performance,
and generation of different types of mini-games targeted to helping the user improve particular weakness." (DE 17 at
9-10 (citing DE 12 at 3-4) (emphasis added)). However, a review of each of these reveals otherwise, and, when turning
to the section of the specification as referenced by plaintiffs and discussed by defendant, (<u>see</u> DE 12 at 3-4), no
technology for processing, assessing, or generating mini-games is disclosed. Instead, the specification discusses in
general terms how the game works, including describing in general terms a computer that allows a user to read music
and play along, processes the signals received from the user's playing, updates the graphics display, scores a user's
performance, identifies difficulties the user has in playing, and suggests new music or mini-games to work on those
weaknesses.

Thus, the game engine may assess the user's past performance and provide the user with exercises or games to target the areas that the user needs to work on in step 1303, and the game engine may then appropriately determine or form a selection of mini-games to be played in step 1304."). At the base, teaching a user how to play an instrument by evaluating a user's performance and generating appropriate exercises to improve that performance is an abstract idea that cannot be patented by adding the presence of a computer. See Alice, 134 S. Ct. at 2358 ("[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.").

The only arguable inventive concept in the '852 patent relates to the claim limitation of changing the difficulty level of a song, at times doing so in "real time during the playing of the song," in response to an assessment of the user's performance. As argued by plaintiffs, the '852 patent's "claimed method is a specific technique that departs from and improves upon earlier approaches" in that it "not only assesses the user's performance, but dynamically changes the difficulty level of the game and generates a new mini-game based on it." (DE 17 at 9; see also id. at 11 n.3 (arguing a human teacher cannot "selectively change a difficulty level of the same song that the user was playing")).

However, further examination shows this concept to also be vague and lacking innovation, where the abstract idea of adjusting the difficulty of a performance and providing small, targeted exercises to improve weak skills are established teaching methods and where the claims and specification provide no reference to how "dynamically chang[ing] the difficulty level of the game and generat[ing] a new mini-game based on it" is to be accomplished, beyond that which a music teacher can provide. See '852 patent, col. 9, ll. 51-59 ("The user may either play the song 1302 or

may defer to the game engine to decide which areas of the song that the player or user needs to work on 1303. The song may be broken out into certain sections or parts, which represent different levels of play. Alternatively, 55 different levels may be different songs of different levels of difficulty. Or, the different levels may represent different playing skills that a guitarist would like to learn or need to practice or work on."); id., col. 20, ll. 47-48 ("changing a frequency or a speed of the presented plurality of fingering notations").

Plaintiffs further argue that "the claims of the '852 patent do not merely invoke the use of computers as a tool for performing routine activities"; however, in support of this contention, plaintiffs list the activities recited in claim one and turns to the prosecution history as confirming these activities, in particular the generation of mini-games, were not known in the prior art. (DE 17 at 10). That these activities were not known in the prior art is not relevant to the present inquiry. The claimed step of generating a mini-game is not a solution to a computer functionality problem but the disclosure of training exercises that historically have been employed by music teachers.

Although plaintiffs argue the dependent claims at issue further add to plaintiffs' alleged improvement to the earlier approaches, the same as stated above applies to the additional limitations imposed by the dependent claims, which again substitute a generic computer for a human teacher. These claims are unlike the sort of claims found not to be abstract based on their improvement of computer functionality. See, e.g., Ancora Techs., Inc. v. HTC Am., Inc., 908 F.3d 1343, 1344 (Fed. Cir. 2018), as amended (Nov. 20, 2018) (claims not directed to abstract idea where "the claimed advance is a concrete assignment of specified functions among a computer's components to improve computer security"); Enfish, LLC v. Microsoft Corp., 822 F.3d 1327, 1333, 1336 (Fed. Cir. 2016) (claims not directed to abstract idea where claimed self-referential tables allowed the more efficient

launching and adaptation of databases); <u>Visual Memory LLC v. NVIDIA Corp.</u>, 867 F.3d 1253, 1259 (Fed. Cir. 2017) (claims not directed to abstract idea where "directed to an improved computer memory system, not the abstract idea of categorical data storage"; <u>Finjan, Inc. v. Blue Coat System, Inc.</u>, 879 F.3d 1299, 1304 (Fed. Cir. 2018). (claims not directed to abstract idea where claimed technique of "behavior-based virus scan" enabled "more flexible and nuanced virus filtering" and detection of potentially dangerous code); <u>see also</u> <u>Core Wireless Licensing S.A.R.L.v. LG Electronics, Inc.</u>, 880 F.3d 1356, 1362 (Fed. Cir. 2018) (improved index functionality); <u>Data Engine Techs LLC v. Google LLC</u>, 906 F.3d 999, 1007-08 (Fed. Cir. 2018) (improved spreadsheet functionality where "[t]he method provides a specific solution to then-existing technological problems in computers and prior art electronic spreadsheets"); <u>McRO, Inc..</u>, 837 F.3d at 1314 (improved computer animation).

Plaintiffs additionally stress that the claims of the '852 patent were all found to be patentable during prosecution, providing documentation in support. (<u>See, e.g.</u>, DE 17 at 5-6).[9] However, the prosecution history does not lend the support indicated by plaintiffs. The Examiner first rejected the original '852 claims based on section 101, conducted an interview regarding certain prior art references, and then proposed certain amendments to the claims that were adopted and led to allowance. (DE 17-1, DE 17-3). The Examiner found all elements of the asserted claims to be present in the prior art with the sole exception of "generating at least one mini-game different from the game for the song played targeted to improving the user's skills associated with the performance of the determined portion." (DE 17-1 at 12). However, this sole alleged improvement is not a

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[9]   As previously stated, "a court may take judicial notice of matters of public record in considering a motion to dismiss." <u>Sec'y of State for Defense</u>, 484 F.3d at 705; thus, "[a] court may also take judicial notice of the prosecution histories, which are 'public records,'" <u>Genetic Techs. Ltd. v. Bristol-Myers Squibb Co.</u>, 72 F. Supp. 3d 521, 526 (D. Del. 2014), <u>aff'd sub nom.</u> <u>Genetic Techs.</u>, 818 F.3d at 1369.

technological improvement or an advance in computer function, and, as stated above, providing small, targeted exercises to improve weak skills is a decidedly established teaching method.

Beyond the abstract idea of teaching guitar by evaluating a user's performance and generating appropriate exercises to improve that performance, the asserted claims also fail to contain an inventive concept. As noted above, a claim directed to an abstract idea contains an inventive concept if it contains "an element or combination of elements . . . sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself." Alice, 134 S. Ct. at 2354 (internal citations omitted). "[W]holly generic computer implementation is not generally the sort of 'additional featur[e]'" required to render a claim patent-eligible. Id. at 2358 (quoting Mayo Collaborative Servs. v. Prometheus Labs., Inc.,132 S. Ct. 1289, 1297 (2012)); see also buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1355 (Fed Cir. 2014) ("That a computer receives and sends . . . information over a network— with no further specification— is not even arguably inventive.").

Plaintiffs' arguments regarding Alice, step two, are brief. Although plaintiffs argue that defendant has failed to provide sufficient evidence that the claims at issue are "well-understood, routine, and conventional to a skilled artisan in the relevant field," (DE 17 at 13 (citing Aatrix Software, Inc. v. Green Shades Software, Inc., 890 F.3d 1354, 1359 (Fed. Cir. 2018)), for the reasons stated above, the court disagrees. Likewise, the claims do not "recite the specific computer programming steps that are performed on the computer," nor does the specification "describe[] these

steps as a significant <u>technological</u> improvement over conventional methods." (<u>Id.</u> at 13-14 (emphasis added)).[10]

In sum, the claims at issue in the '852 patent are directed to an abstract idea and lack an inventive concept. Consequently, the asserted claims are patent-ineligible under 35 U.S.C. § 101.

CONCLUSION

Based on the foregoing, the court GRANTS defendant's motion to dismiss. (DE 11). Plaintiffs' complaint is DISMISSED with prejudice. The clerk is DIRECTED to close this case.

SO ORDERED, this the 9th day of August, 2019.

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LOUISE W. FLANAGAN
United States District Judge

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[10]   Plaintiffs invoke <u>Bascom Glob. Internet Servs., Inc. v. AT&T Mobility LLC</u>, 827 F.3d 1341, 1349-50 (Fed. Cir. 2016). In <u>Bascom,</u> the Federal Circuit found an inventive concept "in the non-conventional and non-generic arrangement of known, conventional pieces," even though the asserted claims, taken individually, merely "recite[d] generic computer, network and Internet components, none of which [was] inventive by itself." <u>Id.</u> at 1349–1350. However, there is no non-conventional and non-generic arrangement at issue, where the steps to be performed in claim one are in the logical order of same steps as they would be performed by a music teacher. Additionally, unlike the claimed method in <u>Bascom,</u> plaintiffs do not claim a "software-based invention that improves the performance of the computer system itself." <u>Id.</u> at 1351 (internal quotations omitted).