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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

BOT M8 LLC,

Plaintiff,

No. C 19-07027 WHA

v.

SONY CORPORATION OF AMERICA, et

ORDER RE SUMMARY JUDGMENT

Defendants.

INTRODUCTION

Dueling summary judgment motions contest a patent's validity under 35 U.S.C. § 101 and its infringement by certain videogame systems. The asserted claim is invalid for reciting an abstract idea, failing to describe a specific technological improvement, and including no further inventive concept. Defendants' motion is GRANTED IN PART; the remainder is DENIED AS Моот.

STATEMENT

Patent owner Bot M8 LLC asserts two patents against Sony Corporation of America, Sony Corporation, and Sony Interactive Entertainment, LLC, U.S. Patent Nos. 7,338,363 and 7,497,777. Only claim 1 of the '363 patent remains relevant here.

The '363 patent purports to disclose an improved gaming machine. Different game players seek different entertainment, so the patent teaches that a "gaming machine [should] be

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designed to satisfy different game motives of various game players." For example, games played under the same conditions risk losing player engagement, because they do not "provide[] the game player with a varying sense of anticipation to the game." Thus, "it is desirable to provide a gaming machine with which the specification values are changed by each game player in an enjoyable manner" ('363 patent at 1:32–34, 1:47–48, 1:67–2:2).

So, the '363 patent discloses a game machine wherein the "a game result achieved by a game player and a game result achieved by another game player are totalized and the specification value is changed in accordance with the total result." As a result, "exciting gaming machines which give the game players incentive to play the game can be provided" (id. at 2:41–45, 2:54–56).

The '363 patent embodies this invention in an improved slot machine. Simply, two or more of these slots machines connect to a server, transmit and aggregate individual game results, and then update the individual game conditions based on the aggregate result.

> Accordingly, even when the number of medals paid out to one of [the] jointly-played gaming machines is large, the specification values would be reduced (or depreciated) if the number of medals paid out to the other gaming machine is small, so that the next game play must be carried out under a more unfavorable condition than the preceding game play. Conversely, even when the number of medals paid out for one of the jointly-played gaming machines is small, the specification values would be increased (or improved) if the number of medals paid out to the other gaming machine is large, so that the next game play could be carried out under a more favorable condition that the preceding game play.

In one example, the specification explains that two players' aggregate winnings above a certain threshold result in better or more exciting jackpot odds. And, conversely, if the two players lose enough, the jackpot odds diminish (*id.* at 19:64–20:12, 22:8–27).

Of course, the '363 patent claims this principle more broadly than just updating slot machine odds. Rather, it claims a gaming machine which curates conditions based upon prior results. Relevant here, the asserted claim 1 recites:

> A first gaming machine for transmitting and receiving data to and from a server, comprising:

a specification value setting device that sets at least one specification value as a control condition for game control;

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a transmitting device that transmits data of a game result to the server;

a gaming machine determining device that determines a second gaming machine operated by a co-player;

a total result data receiving device that receives from the server data of a total game result achieved by the first gaming machine and the second gaming machine based on the data of the game result transmitted by the transmitting device;

a specification value determining device that determines a specification value based on the data of the total game result received by the total result data receiving device; and

a specification value renewing device that renews to replace the specification value set by the specification value setting device with the specification value determined by the specification value determining device.

Patent owner asserts claim 1 against Sony's PlayStation 4 and three video games: MLB The Show 19; Uncharted 4: A Thief's End; and Uncharted: Lost Legacy, but only moves for summary judgment of infringement against the Uncharted games. In these games, players step into the shoes of swashbuckling treasure hunters, searching exotic locales for long-lost treasure and evading enemies via a combination of wit, physicality, and (most relevant for patent owner's purposes) guns — lots of them. The games' online multiplayer modes pit two teams of five against each other in a variety of exciting gunfights. In the Deathmatch mode, teams simply try to kill each other. In Plunder, they fight for possession of a large idol. Victory in online multiplayer or other challenges unlocks new weapons or weapon upgrades, which players can use to compete more effectively in future multiplayer matches (Dkt. No. 142-4 at 3– 5).

Patent owner says these unlockable weapons constitute the games' "specification value[s]" because a player's arsenal directly influences her competitive advantage (or disadvantage) in multiplayer rounds. Players unlock new weapons or weapon improvements by spending Relics, an in-game currency which players earn by accomplishing in-game challenges, winning matches, and advancing through the games' player rankings of Apprentice, Bronze, Silver, Gold, Platinum, and Diamond. Simply, prior individual and team match results drive player access to the weapons and improvements which define the game conditions of future multiplayer rounds (id. at 13–16).

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Sony rates patent owner's assertions as a new infringement theory not disclosed in the prior infringement contentions, mandated by Patent Local Rule 3-1. In its opposition and its cross motion for summary judgment, Sony asserts the Uncharted games and MLB (each along with the PlayStation 4 of course) do not infringe claim 1. More important for our present purposes, however, Sony also argues claim 1 recites a patent-ineligible abstract concept without including an inventive concept. This order follows full briefing of both motions and a hearing (held telephonically due to COVID-19).

ANALYSIS

Summary judgment is appropriate if there is no genuine dispute of material fact, those facts "that might affect the outcome of the suit." "[T]he substantive law's identification of which facts are critical and which facts are irrelevant . . . governs." A genuine dispute contains "sufficient evidence" such that a "reasonable jury could return a verdict for the nonmoving party." Anderson v. Liberty Lobby, 477 U.S. 242, 248–49 (1986). "In judging evidence at the summary judgment stage, the court does not make credibility determinations or weigh conflicting evidence. Rather, it draws all inferences in the light most favorable to the nonmoving party." Soremekun v. Thrifty Payless, Inc., 509 F.3d 978, 984 (9th Cir. 2007). If "a proper jury question" remains, summary judgment is inappropriate. See Anderson, 477 U.S. at 249.

A defendant may only infringe a valid patent. Thus, before addressing infringement, this order must address Sony's challenge to claim 1's subject-matter eligibility. Because this order finds claim 1 ineligible, it does not reach other infringement issues.

1. PATENTABLE SUBJECT MATTER GENERALLY.

A patent can cover "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101. But 150 years of precedent exclude laws of nature, natural phenomena, and abstract ideas — "the basic tools of scientific and technological work." Tying these up in patents "might tend to impede innovation," thus undermining the constitutional purpose of patents — "[t]o promote" progress. Alice Corp. v. CLS Bank Int'l, 573 U.S. 208, 216 (2014); U.S. CONST., art. I, § 8, cl. 8.

To distinguish the abstract from the patentable, the Supreme Court has provided a two-step framework. "First, we determine whether the claims are directed to a 'patent-ineligible concept,' such as an abstract idea. If so, we 'consider the elements of each claim both individually and as an ordered combination to determine whether the additional elements transform the nature of the claim into a patent-eligible application." *Customedia Techs.*, *LLC v. Dish Net. Corp.*, 951 F.3d 1359, 1362 (Fed. Cir. 2020) (quoting *Alice*, 573 U.S. at 217).

Though ultimately a question of law, subject-matter eligibility may include underlying questions of fact, and any extrinsic facts supporting invalidity "must be proven by clear and convincing evidence." But, of course, "not every § 101 determination contains genuine disputes over the underlying facts material to the § 101 inquiry . . . [p]atent eligibility has in many cases been resolved on motions to dismiss or summary judgment." *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365, 1368 (Fed. Cir. 2018). The challenged claim and specification remain the primary sources in this dispute, and in appropriate cases a court might "need to only look to the specification" to resolve the matter. *See In re TLI Commc'ns LLC Pat. Litig.*, 823 F.3d 607, 613–14 (Fed. Cir. 2016); *see, e.g., Customedia*, 951 F.3d at 1365–66; *Interval Lic. LLC v. AOL, Inc.*, 896 F.3d 1335, 1346–48 (Fed. Cir. 2018); *Berkheimer*, 881 F.3d at 1369; *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1354–56 (Fed. Cir. 2016).

As will be seen, claim 1 of the '363 patent recites the abstract idea of increasing or decreasing the risk-to-reward ratio, or more broadly the difficulty, of a multiplayer game based upon previous aggregate results. But the claim leaves open *how* to accomplish this, and the specification provides hardly any more direction. Then, though limited to a specific field, "gaming machine[s]," the claim merely recites result-oriented uses of conventional computer devices. At bottom, neither the patent specification, patent owner, or patent owner's experts articulate a technological problem solved by the '363 patent.

2. ALICE STEP ONE: CLAIM 1 RECITES AN ABSTRACT CONCEPT.

To determine whether a claim recites an abstract idea, we look to "the focus of the claim[] [and its] character as a whole." *Alstom*, 830 F.3d at 1353. "[A] claimed invention must embody a concrete solution to a problem having the specificity required to transform a claim

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from one claiming only a result to one claiming a way of achieving it." Interval, 896 F.3d at 1343 (quotation omitted). "An improved result, without more stated in the claim" does not "confer eligibility to an otherwise abstract idea. To be patent-eligible, the claim[] must recite a specific means or method that solves a problem in an existing technological process." That bears repeating — the *claim itself* must "sufficiently capture the inventors' asserted technical contribution to the prior art by reciting how the solution specifically improves the function of prior art " Koninklijke KPN N.V. v. Gemalto M2M GmbH, 942 F.3d 1143, 1150–51 (Fed. Cir. 2019) (emphasis added).

Moreover, the invention must be concrete. "Data in its ethereal, non-physical form is simply information that does not fall under any of the categories of eligible subject matter under section 101." Digitech Image Techs., LLC v. Elecs. for Imaging, Inc., 758 F.3d 1344, 1350 (Fed. Cir. 2014). Similarly, data collection and analysis remain intangible and abstract. Thus, the Federal Circuit has said that "merely presenting the results of abstract processes of collecting and analyzing information, without more (such as identifying a particular tool for presentation), is abstract as an ancillary part of such collection and analysis." See Alstom, 830 F.3d at 1354.

Now, a machine, "consisting of parts, or of certain devices and combination of devices" historically would be a sufficiently tangible invention. See Digitech, 758 F.3d at 1349 (citing Burr v. Duryee, 1 Wall. 531 (1863)). But that assumes the machine is the invention. See Alstom, 830 F.3d at 1353. If it's not, and the claim focuses on an intangible aspect, Alice "made clear that the invocation of a computer does not necessarily transform an abstract idea into a patent-eligible invention." See Customedia, 951 F.3d at 1362 (citing Alice, 573 U.S. at 223). Thus, the recitation of generic "tangible components," described predominantly in "purely functional terms" — i.e., limiting the abstract claim to "a particular environment," does not actually make the claim any less abstract. TLI, 823 F.3d at 612–13.

But a court must not oversimplify the invention. "At some level, all inventions . . . embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. Thus, an invention is not rendered ineligible for patent simply because it involves an abstract

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concept." Alice, 573 U.S. at 217 (quote omitted). So, a court should "articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful." Thales Visionix Inc. v. United States, 850 F.3d 1343, 1347 (Fed. Cir. 2017).

That warning in mind, this order nonetheless concludes that claim 1 of the '363 patent recites an abstract concept. The specification explains that "it is desirable to provide a gaming machine with which the specification values"—i.e. the risk/reward level or difficulty—"are changed by each game player in an enjoyable manner," so the patent offers an improvement whereby "a game result achieved by a game player and a game result achieved by another game player are totalized and the specification value is changed in accordance with the total result." Thus, "exciting gaming machines which give the game players incentive to play the game can be provided" ('363 patent at 1:67–2:2, 2:41–45, 2:54–56).

Simply, the '363 patent teaches a game machine that updates the game conditions based on past results to keep players engaged. That's a result, not a means to achieve it. So, up front it's abstract. Yet more so, because the Federal Circuit has "held that improving a user's experience" remains, "without more," an insufficient technological improvement and, thus, not patentable. See Customedia, 951 F.3d at 1365. But, as warned, anything can be abstracted if viewed from a high-enough altitude. To ensure we articulate this claim's focus with adequate specificity, this order delves into claim 1 and the supporting specification to determine whether they explain how to achieve the improved user experience. *Interval*, 896 F.3d at 1343; Koninklijke, 942 F.3d at 1151. They do not.

Claim 1 itself recites (in relevant part) only:

a specification value determining device that determines a specification value based on the data of the total game result received by the total result data receiving device; and

a specification value renewing device that renews to replace the specification value set by the specification value setting device with the specification value determined by the specification value determining device.

Future game conditions change based on prior game results — no means recited; no explanation how to accomplish the result.

Further review of the specification reveals little more. The invention summary explains:

[T]he specification value may be improved even if the game result of the game player is bad since the game result of the another game player could be good. Accordingly, even if the game result of the game player is not good, the game player may have a sense of anticipation for the game. Furthermore, even if the game result of the game player is good, the specification value may be depreciated since the game result of the another game player could be bad. In order to avoid such a situation, the game players try to make their game results good.

(*id.* at 2:45–54). A little more this time. The game specification value increases if the players perform well and decreases if the players perform poorly. But *how* do the game conditions change based upon results? What conditions change? Based on what variables? And, what are the thresholds for change?

Describing the preferred embodiment, two slot machines connected by a server, the specification later explains that the payout conditions, "the big-hit shift probability" (*i.e.*, the odds of a "great success, big prize win[], or jackpot"), "the payout, and the payout rate," change based upon the two players' total winnings:

Specifically, if the total of the numbers of payout medals is not less than a predetermined fixed number, the big-hit probability, the payout and the payout rate are increased. On the other hand, if the total of the numbers of payout medals is less than the predetermined fixed number, the big-hit probability, the payout, and the payout rate are reduced so as to be depreciated.

Thus, it continues:

[E]ven when the number of medals paid out to one of [the] jointly-played gaming machines is large, the specification values would be reduced (or depreciated) if the number of medals paid out to the other gaming machine is small, so that the next game play must be carried out under a more unfavorable condition than the preceding game play. Conversely, even when the number of medals paid out for one of the jointly-played gaming machines is small, the specification values would be increased (or improved) if the number of medals paid out to the other gaming machine is large, so that the next game play could be carried out under a more favorable condition that the preceding game play.

In English, then, it says that if the two slots players win enough (together), greater jackpots become possible. And, if they lose enough, these exciting jackpot opportunities vanish. Figure 7 tabulates the prior results and future parameters (*id.* at 1:35–37, 19:45–20:12, 22:8–27).

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Fig. 7

	SET 1			 SET 6		
TOTAL RESULT	PROBABILITY 1	PAYOUT 1	PAYOUT RATE 1	 PROBABILITY 6	PAYOUT 6	PAYOUT RATE 6
_	D1000	E1000	F11	 D6000	E6000	F61
A1~A2	D1100	E1100	F12	 D6100	E6100	F62
A2~A3	D1200	E1200	F13	 D6200	E6200	F63
A3~A4	D1300	E1300	F14	 D6300	E6300	F64
A4~A5	D1400	E1400	F15	 D6400	E6400	F65
A5~	D1500	E1500	F16	 D6500	E6500	F66

That's as far as the specification goes. It partially illuminates the parameters to change, the payout parameters, and the driving variable, the actual prior payout. But the descriptions remain vague and qualitative — greater than, less than, increase, and decrease — and fail to specify any (even if only as an example) threshold values, which trigger changed game parameters.

So, review of the claim and specification — asking what problem claim 1 solves reveals several articulations of claim focus. Most specific, the patent purports to teach how to increase or decrease the odds or difficulty of a gaming machine, here a slot machine, based upon the players' winnings or losses. More generally, the patent says it teaches how to increase or decrease game difficulty based on prior results. More broadly yet, the patent still teaches that a game operator *should* increase or decrease the difficulty of a slot machine based upon the players' winnings or losses. And, the broadest (noted above), the patent may simply teach that a game machine should update game conditions based on prior results. None of these warrants patent protection.

At the most specific, claim 1 of the '363 patent doesn't actually teach how to increase or decrease the difficulty of a slot machine, or any gaming machine for that matter, based on prior results to keep players engaged. It only instructs a game operator to present new jackpot opportunities if the two slots players win enough and to take away jackpot opportunities if the two lose enough. Well, how? How much do the two need to win to increase the specification value and access new opportunities? How much do they need to lose to decrease the

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specification value and close those doors. Claim 1 leaves the operator with no hint of when to change the game conditions (assuming any of this slot machine tinkering is legal to begin with). Changing game conditions at the wrong time due to wrong win or loss thresholds might just as easily drive players away. So, the operator remains just as (and perhaps more) likely to lose players' engagement by following claim 1. A claim that doesn't guide the artisan to the result does not "sufficiently capture the inventors' asserted technical contribution to the prior art." See Koninklijke, 942 F.3d at 1151.

Even if the '363 patent provided and claimed specific thresholds, this order doubts such guidance would be patent eligible under Mayo, where the Supreme Court held invalid as a natural law claims which aided drug efficacy by reciting metabolite thresholds, above which drug dosage should be reduced, and below which it should be increased. Regardless of the time and effort spent surveying patients to determine effective thresholds, the thresholds themselves remained "a consequence of the ways in which [the drug was] metabolized by the body entirely natural processes. And so a patent that simply describe[d] that relation set[] forth a natural law." Mayo Collab. Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 77 (2012). So too here. The win-threshold, above which winning nickels becomes boring and a slots player needs a new thrill, and the complimentary loss-threshold, below which a slots player slinks back from the nickel slots to the penny slots, remain human reactions. Of course, the '363 patent does not provide this much guidance — but the recognition the patent focuses heavily on *natural* human reactions leads to the next conclusion.

The most specific articulations of claim focus failing, we now step back a level. The patent still teaches that a game operator should change the difficulty of a slot machine or other game machine based on prior results to keep players engaged (id. at 2:41–56). But upon review of the specification (even assuming the novelty of this teaching), it becomes clear this solves a human problem, not a technological one. At first, the game entertains the player. Then, it does not. Not because the "prior art" slot machine changes in operation or develops a flaw but because the *player tires* of the recurrent game conditions. A human problem with, historically, a human solution. The player seeking more exciting conditions dismounted the stool in front of

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the nickel slot machine and graduated to the dime slots. Or, if the nickel slots proved too emotionally trying, the player returned to the quiet comfort of the penny slots. And, of course, two players pooling their costs and winnings would do the same. So, when the '363 patent simply says game operators should curate the game conditions, instead of explaining how to do it, the patent does no more than recognize a human problem. Thus, the focus remains on improved user enjoyment which, as above, the Federal Circuit rates as an abstract concept. See Customedia, 951 F.3d at 1365.

Patent owner proclaims the '363 patent "is directed to specific improvements in computer functionality" specifically by connecting multiple gaming machines, sending results to a server, totaling the result, sending the results back to the gaming machines, and using the results to recalculate game parameters (Dkt. No. 149 at 18). Patent owner's Dr. Ian Cullimore similarly concludes the patent recites a specific technological improvement because:

> [S]pecifically, Claim 1 provides that multiple gaming machines are (1) connected to a server, (2) the gaming machines send game results to the server, (3) the gaming machines receive total game results, and (4) then use them to determine a new specification value for modifying the game conditions.

(Dkt. No. 149-2 at ¶¶ 26–27). But reciting the claim elements along with the conclusion that they recite a specific improvement to the technology does not make it so. A specific solution solves a problem. Yet the patent articulates, for example, no technological difficulty in connecting slot machines to servers, instead admitting that they may be linked by conventional means, "such as a public phone line network, a local area network (LAN), or the like." And, when pressed at deposition, Dr. Cullimore could articulate no specific technological improvement offered by the '363 patent ('363 patent at 9:26–27, 10:34–36; Cullimore Dep. Tr., Dkt. No. 152-3, at 94, 102).

Last, patent owner also rates claim 1 as unconventional because it could not be performed manually. According to patent owner's Dr. Stacy Friedman, "gaming machines in the casino context are highly regulated and require detailed compliance logs every time the settings on a machine are modified." So, manually gathering and aggregating game results and changing game conditions by running from machine to machine on the casino floor would "be both

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contraindicated and possibly illegal" (Dkt. No. 149 at 20). This argument goes against patent owner because patent owner again fails to specify a technological obstacle to the practice and instead confirms it to be a legal — i.e., human — one. Such a solution, assuming the '363 patent first disclosed it, remains unpatentable.

In sum, neither the patent, patent owner, nor patent owner's experts articulate a problem present in the prior art or the '363 patent's specific technological solution. So, the recited concept of updating game parameters based on prior results to maintain user enjoyment remains abstract.

3. ALICE STEP TWO: CLAIM 1 OFFERS NO INVENTIVE CONCEPT.

Having determined claim 1 of the '363 patent recites an abstract concept, eligibility now turns on whether its elements, either individually or as an ordered combination, recite an inventive concept that transforms the abstract concept into a patent-eligible application. Customedia, 951 F.3d at 1365-66. "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]." Both Mayo and Alice make "clear that transformation into a patent-eligible application requires 'more than simply stat[ing] the [abstract idea] while adding the words apply it." And, of course, "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." Alice, 573 U.S. at 221–23 (quoting *Mayo*, 566 U.S. at 72, 77) (emphasis added).

The Federal Circuit has explained that "an inventive concept can be found in the nonconventional and non-generic arrangement of known, conventional pieces." BASCOM Global Internet Servs. v. AT&T Mob., 827 F.3d 1341, 1350 (Fed. Cir. 2016). But, "the components must involve more than performance of 'well-understood, routine, conventional activit[ies]' previously known to the industry." TLI, 823 F.3d at 613 (citing Alice, 573 U.S. at 225). "The question of whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact" which may involve extrinsic evidence or testimony. Berkheimer, 881 F.3d at 1368. But, of course, though the

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inquiry does not necessarily end with the claim and specification themselves, it certainly begins there.

Taken alone, the elements of claim 1 invoke no more than "generic and functional hardware" to accomplish their abstract tasks. See Customedia, 951 F.3d at 1366. Claim 1's "specification value setting device" simply "sets [a] specification value." The "transmitting device" merely "transmits data." The "gaming machine determining device" merely "determines a second gaming machine." The "specification value determining device" merely "determines a specification value" without, as discussed above, contributing any specific means to do so. And, the "specification value renewing device" merely "replace[s] the specification value," again without describing any specific means. Though given special names, each part remains a generic computer part invoked to effect the conventional computer task of gathering, manipulating, transmitting, and using data. This fails to transform the claim. See Alice, 573 U.S. 225–26, TLI, 823 F.3d at 614; Alstom, 830 at 1355.

Even taken as an ordered combination, the elements fail to transform the claimed abstract concept. Patent owner asserts claim 1 captures game components, the flow of data, and modification of conditions based upon prior results in a manner unconventional in the gaming machine industry (Dkt. No. 149 at 22). But, to start, a mere high-level summary of claim 1's elements along with the conclusion that they rate as unconventional does not actually lead to that conclusion. More importantly, though, "limiting [claim 1] to the particular technological environment of [gaming machines] is, without more, insufficient to transform [it] into [a] patent-eligible application[] of the abstract idea at [its] core." See Alstom, 830 F.3d at 1354.

Indeed, that was the point of Alice. Generic computer parts and functions do not become patentable every time they enter a new field. Put another way, performing standard industry practice on conventionally arranged, generic computer parts — even for the first time in the field — remains unpatentable. Alice, 573 U.S. 225–26. The '363 patent may very well be the first time someone put all the recited computer parts into a slot machine. But, as before, the functionally described parts do only conventional computer tasks, gathering, processing, transmitting, and using data. Claim 1 must offer something more.

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Putting the generic computer parts aside, then, the remaining concepts articulated in claim 1 rate as conventional. Recall, the '363 patent seeks to "provide a gaming machine with which the specification values are changed by each game player in an enjoyable manner" and in which "a game result achieved by a game player and a game result achieved by another game player are totalized and the specification value is changed in accordance with the total result" ('363 patent at 1:67–2:2, 2:41–45). But all of this remains standard practice. All businesses seek to maintain user enjoyment, and casinos have long offered a variety of conditions for the same game, e.g., slot machines with different base bets. And of course, casinos aggregate player results. Their profit margins don't depend on individual outcomes, but on the aggregate results of all players converging on the odds, which are tipped in the house's favor (see, e.g., Friedman Dep. Tr., Dkt. No. 152-2, at 51:11–23).

Ultimately, the search for an inventive concept still entails a search for both a technological problem or limitation in the prior art and an improvement the claim offers. See Alice, 573 U.S. at 225. This search for an improvement necessarily queries how the patent achieves its improved result. *Interval*, 896 at 1347; *Alstom*, 830 F.3d at 1355. Yet, as explained above, despite vague and conclusory assertions, neither claim 1, the specification, nor patent owner articulate the technological problem in the prior art or the '363 patent's solution.

So, patent owner turns to two experts' testimony for proof of an inventive concept. Neither offers competent testimony sufficient to forestall summary judgment. Unconventionality is a conclusion drawn from a comparison with the state of the art before and after the patent, with the contribution of the patent comprising the change. See BASCOM, 827 F.3d at 1350. Here, though, the experts' bare assertions that the steps recited by claim 1 were unconventional in the field, without specifying the convention and noting the difference, remain unsubstantiated conclusions entitled to no weight. Regardless, deposition testimony negates both declarations.

Patent owner's Dr. Cullimore purports to find specific and novel implementations of the abstract concept articulated in claim 1, "including requirements for the components comprising the gaming machine, the flow of data exchanged between the components, and the way the

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gaming conditions are modified based on prior results of multiple connected gaming machines." Dr. Cullimore thus concludes the "claim limitations involve more than performance of conventional practices," explaining that the recited:

> (1) multiple gaming machines send[] game result data to the server, (2) the server receives the data, (3) a total game result is generated, (4) the gaming machines receive the total game results, (5) the gaming machines use the total game result data to determine a specification value, and (6) the gaming machines renew the specification value for the next game based on the newly determined specification value . . .

constitutes "an inventive" ordered combination of elements. As before, a recitation of the claim (or a higher-level recitation) plus a conclusory assertion warrants no weight (Dkt. No. 149-2 at ¶¶ 32–33).

In similar fashion, patent owner's Dr. Friedman asserts that claim 1 "provide[s] a novel way to improve the functionality of gaming machines, making them more fun by aggregating results from multiple gaming machines to automatically and dynamically change the game settings." Dr. Friedman also contends that the recited:

> (1) multiple gaming machines send[] game result data to the server, (2) the server receives the data, (3) the server generates a total game result, (4) the server sends the total game result to a gaming machine, (5) the gaming machine uses the total game result data to determine a specification value, and (6) the specification value is then renewed based on the newly determined specification value . . .

rates as "an inventive concept . . . not found in the conventional art in the gaming machine field at the time of the invention." The state of the art before the '363 patent and the particular inventive concept remain unstated. Again, a recitation of the claim elements plus a bare conclusion deserves no analytical weight (Dkt. No. 149-1 at ¶¶ 50, 55).

On the other hand, the deposition testimony of these experts reveals the frailty of patent owner's argument. When pushed at deposition, Dr. Cullimore could articulate no specific inventive concept in claim 1 of the '363 patent other than "the totality" based on his expert report, already dispensed with as conclusory (Cullimore Dep. Tr. at 110, 112, 133–34, 156– 159). Dr. Friedman admitted the video game field knew well how to connect multiple game machines, aggregate results, and change game parameters before the '363 patent (Friedman Dep. Tr. at 91–92). And, Dr. Cullimore effectively admitted that he could not articulate

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anything unconventional about the '363 patents' disclosure of changing the game parameters during play (Cullimore Dep. Tr. at 157, 159). In sum, patent owner's experts fail to offer competent extrinsic evidence sufficient to forestall summary judgment.

In its final expert-related argument, patent owner rates Sony's Dr. David August as unqualified to testify about gaming, specifically gambling, machines. But this order does not employ Dr. August's testimony. Here, in the absence of competent extrinsic evidence offered by patent owner, the patent speaks for itself.

Patent owner then complains of alleged inconsistencies in Sony's noninfringement and invalidity arguments. At first glance, patent owner lacks a leg to stand on — arguing, for example, in its infringement portion that the '363 patent covers all gaming devices, not just gambling machines, yet heavily rooting its subject-matter eligibility rebuttal in the state of the art for gambling machines. Regardless, even accepting the critique, it does not undermine Sony's position. It remains true that patent claims "must be construed in the identical way for both infringement and validity." Kimberly-Clark Corp. v. Johnson & Johnson, 745 F.2d 1437, 1449 (Fed. Cir. 1984). So, patent owner must present consistent theories, as its infringement theory depends on its validity theory. See, e.g., Straight Path IP Grp. v. Cisco Sys., 411 F. Supp. 3d 1026, 1034–35 (N.D. Cal. 2019). But a comprehensive patent infringement defense probes both the breadth and narrowness of the claims, because both noninfringement and invalidity are complete defenses. Sony may fairly present inconsistent claim interpretations between its invalidity and noninfringement defenses, so long as its theories remain consistent within those two defenses.

Finally, patent owner argues that if claim 1 is patent ineligible then so too are many of Sony's patents. Life is too short to litigate Sony's own patents here. If Sony's patents are invalid for the reasons articulated herein, patent owner is free to cite this order in an appropriate proceeding. For our present purposes, however, two wrongs don't make a right.

CONCLUSION

Claim 1 of U.S. Patent No. 7,338,363 recites an abstract idea without an inventive concept and thus, under Alice and its progeny, rates as invalid under 35 U.S.C. § 101. To the extent

above, then, Sony's motion is **GRANTED**. Infringement of an invalid claim being impossible, the remainder of the parties' motions, including the remaining procedural, infringement, and noninfringement arguments, are **DENIED AS MOOT**.

Last, though this order doesn't reach the merits of Sony's argument that patent owner's infringement arguments exceed the bounds of the infringement contentions, this order offers both sides a fair warning: in this district, the Patent Local Rule 3-1 infringement and invalidity contentions set the metes and bounds of the suit. Apple Inc. v. Samsung Elecs. Co., No. C 12-0630 LHK (PSG), 2013 WL 3246094, at *1 (N.D. Cal. June 26, 2013) (Magistrate Judge Paul S. Grewal). This Court adheres to the local rules. Contention amendment requires good cause. Arguments truly outside the scope of the contentions will be stricken.

Looking ahead to the remaining asserted claims, this order reminds the parties that nonexpert discovery closes on March 31, 2021. The Court awaits the parties' dispositive motions no later than May 27, 2021. Following a September 8 pre-trial conference, trial will commence at 7:30 a.m. on September 20, 2021 (Dkt. No. 112).

IT IS SO ORDERED.

Dated: June 10, 2020.

UNITED STATES DISTRICT JUDGE