UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

ELECTRONIC SCRIPTING PRODUCTS, INC.,

Plaintiff,

v.

HTC AMERICA INC.,

Defendant.

Case No. 17-cv-05806-RS

ORDER GRANTING MOTION TO DISMISS

INTRODUCTION

Plaintiff Electronic Scripting Products, Inc. ("ESPI") brings this suit against HTC America, Inc. ("HTC") and Valve Corporation ("Valve") averring both direct and induced infringement of United States Patent Nos. 9,235,934 ("the '934 Patent") and 8,553,935 ("the '935 Patent," and together with the '934 Patent, the "Patents"). The Patents pertain to the measuring of three-dimensional pose and orientation using on-board photodetectors and stationary light sources for virtual reality applications. Valve has since been voluntarily dismissed by ESPI. HTC moves to dismiss on the grounds that the Patents are directed to patent-ineligible subject matter under 35 U.S.C. § 101, as well as for failure to state a claim. Because the Patents are not directed to patent-ineligible concepts but ESPI's Complaint ("Compl.") nonetheless fails to state a claim, HTC's motion to dismiss is granted with leave to amend.

BACKGROUND

ESPI is the owner of United States Patent Nos. 9,235,934 and 8,553,935, issued on October 8, 2013, and January 12, 2016, respectively. The Patents' object is "to introduce a particularly effective optical navigation apparatus and methods for optically inferring or measuring the absolute pose of objects manipulated in real three-dimensional environments." *See* Declaration of Evan S. Day, Ex. 1 ("'935 Patent") at 5:6–9; Ex. 2 ("'934 Patent") at 5:6–9. "Pose"

is the three-dimensional position of an object, measured along the x-, y-, and z-axes, and when combined with the three inclination angles, is known as "absolute pose"; the Patents measure absolute pose by using light and photo-detection. The Patents describe "a system that has a remote control equipped with a relative motion sensor," and "at least one light source and a photodetector that detects" the light from the light source(s) and "outputs data indicative of the detected light." '935 Patent at 5:21–27; '934 Patent at 5:21–27.

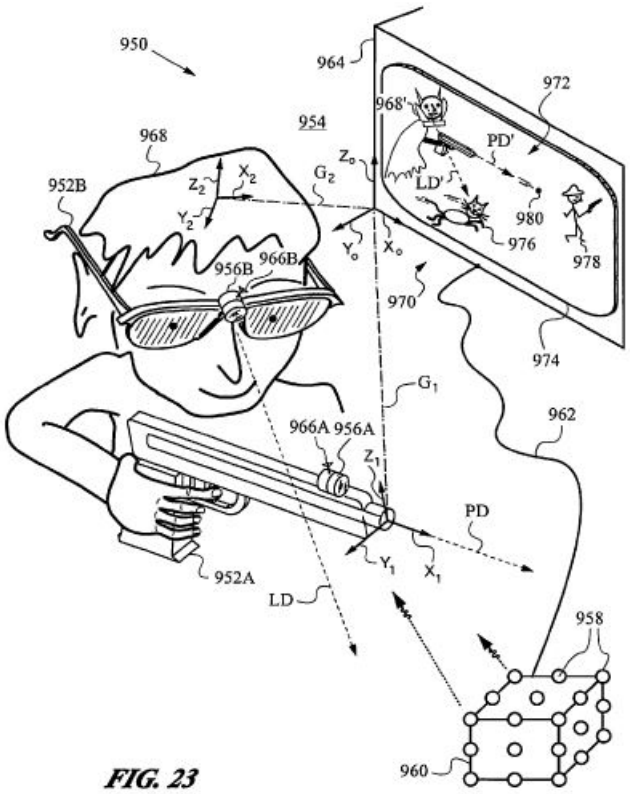

FIG. 23

For example, Figure 23 provides an illustration of one embodiment of the system, a "virtual reality simulation program" in which "a military drill" runs on a computer display and tracks the position of the military trainee using wearable glasses, and the aim of the trainee using a gun or laser shooter. '935 Patent at 40:23–24; '934 Patent at 42:15–16. In this embodiment, there are two manipulated objects, namely the wearable glasses and the gun, each of which is equipped

with an on-board optical measuring arrangement. These arrangements detect light from a stationary external source, which in turn is connected to the computer. Together, the system processes the pose and orientation of the trainee.

The specific claims of the Patents at issue are Claim 12 of the '935 Patent and Claim 1 of the '934 Patent. Claim 12 of the '935 Patent states:

> A system comprising a manipulated object, said system comprising:
> a) a first plurality of predetermined light sources disposed at known positions in world coordinates;
> b) a photodetector mounted on-board said manipulated object for generating light data indicative of light detected from said first plurality of light sources;
> c) a relative motion sensor mounted on-board said manipulated object for generating relative motion data indicative of a change in an orientation of said manipulated object; and
> d) a processor for determining the pose of said manipulated object based on said light data and said relative motion data, wherein said pose is determined with respect to said world coordinates.

'935 Patent at 52:5–20. Claim 1 of the '934 Patent states:

> A wearable article cooperating with a first plurality of predetermined light sources disposed in a known pattern, said wearable article comprising:
> a) a photodetector configured to detect said first plurality of predetermined light sources and generate photodetector data representative of the positions of said first plurality of predetermined light sources; and
> b) a controller configured to identify a derivative pattern of said first plurality of predetermined light sources from said photodetector data, wherein said derivative pattern is indicative of the position of said photodetector.

'934 Patent at 51:6–16.

ESPI filed suit against HTC and Valve on October 9, 2017, averring both direct and induced infringement of the '934 and '935 Patents through defendants' "VIVE devices." Compl. ¶ 7.

LEGAL STANDARD

Under Federal Rule of Procedure 12(b)(6), a district court must dismiss a complaint if it fails to state a claim upon which relief can be granted. To survive a Rule 12(b)(6) motion to dismiss, the plaintiff must allege "enough facts to state a claim to relief that is plausible on its

face." *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 570 (2007). A claim is facially plausible when the plaintiff pleads facts that "allow[] the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (citation omitted). While courts do not require "heightened fact pleading of specifics," a plaintiff must allege facts sufficient to "raise a right to relief above the speculative level." *Twombly*, 550 U.S. at 555, 570. In deciding whether the plaintiff has stated a claim upon which relief can be granted, the court accepts the plaintiff's allegations as true and draws all reasonable inferences in favor of the plaintiff. *See Usher v. City of Los Angeles*, 828 F.2d 556, 561 (9th Cir. 1987). The court is not required to accept as true "allegations that are merely conclusory, unwarranted deductions of fact, or unreasonable inferences." *In re Gilead Scis. Sec. Litig.*, 536 F.3d 1049, 1055 (9th Cir. 2008).

To state a claim for patent infringement, "a patentee need only plead facts sufficient to place the alleged infringer on notice. This requirement ensures that the accused infringer has sufficient knowledge of the facts alleged to enable it to answer the complaint and defend itself." *Phonometrics, Inc. v. Hosp. Franchise Sys., Inc.*, 203 F.3d 790, 794 (Fed. Cir. 2000). The Federal Circuit has "repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion." *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1269, 1373 (Fed. Cir. 2016). In such circumstances where it is possible and proper, "claim construction is not an inviolable prerequisite to a validity determination under § 101." *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012).

DISCUSSION

I. *Alice* Motion

Under Section 101 of the Patent Act, "[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 . . . ." 35 U.S.C. § 101. The Supreme Court "has long held that this provision contains an important implicit exception: Laws of nature, natural phenomena,

and abstract ideas are not patentable." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014). While the reasoning behind the exception is clear—"such discoveries are manifestations of . . . nature, free to all men and reserved exclusively to none," *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293 (2012) (internal quotation marks and citations omitted)—the boundaries of the exception are not quite so obvious.

The *Alice* court highlighted "the concern that drives this exclusionary principle as one of pre-emption." *Alice*, 134 S. Ct. at 2354 (noting the delicate balance inherent in promoting progress, the primary object of patent law, and granting a monopoly, the means for accomplishing that goal). In other words, patents that seek wholly to preempt others from using a law of nature or an abstract idea—"the basic tools of scientific and technological work"—are invalid. *Id.* *Alice* warns, nonetheless, that "we treat carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, all inventions . . . embody use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Id.* (internal quotation marks and citations omitted). A patent may thus "involve[] an abstract concept" so long as it is applied "to a new and useful end." *Id.* "Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building blocks into something more, thereby transform[ing] them into a patent-eligible invention." *Id.* (internal quotation marks and citations omitted).

In evaluating whether claims are patent eligible, a court must first "determine whether the claims at issue are directed to one of those patent-ineligible concepts." *Alice*, 134 S. Ct. at 2355. "[T]he 'directed to' inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether their character as a whole is directed to excluded subject matter." *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (internal quotation marks omitted). Although there is no brightline rule for determining whether a claim is directed to an abstract idea, courts have articulated some guiding principles. When evaluating computer-related claims, courts look to whether the claims "improve the functioning of the computer itself," *Alice*, 134 S. Ct. at 2359, or whether "computers are invoked merely as a tool" to implement an abstract

process. *Enfish*, 822 F.3d at 1336.

If the claims are directed to a patent-ineligible concept, a court must then "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." *Id.* at 1334 (internal quotation marks and citations omitted). This step entails the "search for an inventive concept—*i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." *Alice*, 134 S. Ct. at 2355 (internal quotation marks and citations omitted). "For the role of a computer in a computer-implemented invention to be deemed meaningful in the context of this analysis, it must involve more than performance of well-understood, routine, [and] conventional activities previously known to the industry." *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1347–48 (Fed. Cir. 2014). "[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Id.* at 1348. However, "an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces." *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016).

HTC asserts that ESPI's claims are directed to patent-ineligible concepts because they recite the abstract concepts of observing visible points in space and determining the pose and orientation of an object relative to the viewer based on such data. They characterize ESPI's claims as an attempt to patent the abstract process of using objects as tools to determine one's position, as sailors have done by looking at the stars for centuries. ESPI responds that its claims provide a novel solution to conventional three-dimensional pose recognition using a low-cost system involving a photodetector and motion sensor mounted on a manipulated object that allows for use in confined spaces. It claims that this approach offers numerous advantages over the conventional prior art and is cabined by various limitations.

While the Federal Circuit has recognized "that it is not always easy to determine the boundary between abstraction and patent-eligible subject matter," several of its cases have offered

guiding principles. *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347 (Fed. Cir. 2015); *see also Parker v. Flook*, 437 U.S. 584, 589 (1978) ("The line between a patentable 'process' and an unpatentable 'principle' is not always clear."). HTC urges that this case is similar to those in *In re TLI Communications LLC Patent Litigation*, 823 F.3d 607 (Fed. Cir. 2016), and *Content Extraction and Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1243 (Fed. Cir. 2014), in which the Federal Circuit concluded that the patents at issue were directed to abstract concepts. In those cases, the claimed tangible components, a telephone unit and a scanner, respectively, were "merely a conduit for the abstract idea." *TLI Comm'cns*, 823 F.3d at 612 (describing the "abstract idea of classifying an image and storing the image based on its classification"); *see also Content Extraction*, 776 F.3d at 1347 (describing "the abstract idea of 1) collecting data, 2) recognizing certain data within the collected data set, and 3) storing that recognized data in a memory").

ESPI, on the other hand, points to *Thales Visionix Inc. v. United States*, 850 F.3d 1343 (Fed. Cir. 2017). In that case, the Federal Circuit reviewed a patent that "disclose[d] an inertial tracking system for tracking the motion of an object relative to a moving reference frame" using inertial sensors mounted on both the tracked object and the moving reference claim. *Id.* at 1344–45. The patent did "not use the conventional approach of measuring inertial changes with respect to the earth," but instead with respect to the moving reference frame, which in turn increased accuracy and allowed for both simpler and independent operation. *Id.* at 1345. The court concluded that the claims "[we]re not merely directed to the abstract idea of using mathematical equations for determining the relative position of a moving object to a moving reference frame," but "[we]re directed to systems and methods that use inertial sensors in a non-conventional manner to reduce errors in measuring the relative position and orientation of a moving object on a moving reference frame." *Id.* at 1348–49. HTC distinguishes *Thales* from the present case by arguing that while *Thales* dealt with a specific configuration of elements and a particular arrangement of sensors as an improvement over the prior art, ESPI's Patents do not require any particular configuration of either the photodetectors or light sources, nor is it an improvement over

the prior art.

Although a close call, ESPI's claims are sufficiently similar to those in *Thales* to survive dismissal on *Alice* grounds. While HTC argues that the claims do not rely on any particular arrangement of the sensors or represent any improvement over the prior art, this mischaracterizes what the Patents themselves state. The Patents specify that it is the remote control, or the manipulated object, which is equipped with the relative motion sensors and the photodetector, rather than the conventional method, in which photodetectors would be positioned in and around the environment for determination of the manipulated object's pose. The Patents describe a number of other patents using the conventional method. For example, a previous patent uses a distributed-processing motion capture system that uses light point devices as markers attached to the manipulated object, which are detected by stationary imaging cameras located in the environment. These conventional approaches, however, "using markers on objects and cameras in the environment to recover object position, orientation or trajectory are still too resource-intensive for low-cost and low-bandwidth applications" "due to the large bandwidth needed to transmit image data captured by cameras," the cost of processing said image data, and the data network complexity due to the use of several cameras in the environment and their synchronization. '935 Patent at 3:36–46.

ESPI thus recognized a "need for low-cost, robust and accurate apparatus for absolute motion capture" that is "convenient and easy to use at high frame rates in close-range and confined three-dimensional environments," and accomplished this by reversing the usual placement of markers and sensors and using only light sources. '935 Patent at 4:62–5:2. In its claims, the manipulated object bears the sensors (the photodetector and the relative motion sensor), and the markers (the light sources) are placed in a known and non-moving location in the environment. This novel arrangement eliminates the need for multiple synchronized imaging cameras located in the environment and also minimizes the bandwidth and processing needs of the system. For this reason, unlike in *TLI Communications* or *Content Extraction*, the sensors are not mere conduits for abstract principles, but instead their placement is integral to the improved functioning of the

system. As in *Thales*, ESPI's claims are not merely directed to the abstract idea of observing known points in space and determining their position and orientation, but rather are directed to systems and methods that use photodetectors and relative motion sensors mounted on manipulated objects to provide a low-cost method to determine absolute pose in close-range and confined three-dimensional environments, ideal for virtual reality applications.

Nor do the asserted Patents disproportionately preempt the use of all virtual reality products. The Patents themselves recognize the prior art and distinguish themselves from the conventional method as discussed. Instead, the Patents provide a novel and nonconventional approach that represents an improvement on the existing technology.

Even if the claims are directed to patent-ineligible concepts, however, they would nonetheless survive *Alice's* "step two" because they contain an inventive concept. As discussed, ESPI's nonconventional arrangement of sensors on the manipulated object rather than in the environment in combination with stationary light sources constitutes a sufficiently inventive concept to transform the claims into patent-eligible subject matter. *See BASCOM Glob. Internet Servs.*, 827 F.3d at 1350 ("[A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces."). While HTC argues that the Patents recognize such an arrangement was already recognized by the prior art, the Patents distinguish themselves from the preexisting use of on-board sensors. The '935 Patent provides the example of another patent which uses a sensor "on-board the manipulated object," but in combination with "[a] projected image viewed by the sensor and generated by a separate mechanism, i.e., a projection apparatus that imbues the projected image with characteristic image points [] to perform the computation." '935 Patent at 4:26–30. The '935 Patent explains, however, that the projected image adds a layer of "complexity" due to "calibration and interaction problems," and "is not applicable to close-range and/or confined environments, and especially environments with typical obstructions that interfere with line-of-sight conditions." *Id.* at 4:38–44. It thus remedies these limitations through use of on-board sensors in conjunction with stationary light sources, rather than projected images, and may be used in "close-range, real three-dimensional environments

including constrained environments, living quarters and work-spaces." *Id.* at 5:1214. This non-conventional approach provides a simpler, less expensive, and more versatile framework that is sufficiently inventive. For these reasons, HTC's motion to dismiss on *Alice* grounds is denied.

II. Sufficiency of the Pleadings

HTC also moves to dismiss ESPI's claims for relief for failure to state a claim. HTC argues that the Complaint does not provide specific factual allegations that distinguish between HTC and co-defendant Valve, separate, unaffiliated companies, and therefore HTC has not properly been put on notice as to its alleged unlawful actions. ESPI responds its Complaint avers that defendants acted "jointly and severally" with respect to each factual allegation, therefore putting HTC on notice "it is a party to each act and knowledge alleged in the complaint." Opp. at 16.

Upon review of the Complaint, HTC is correct that the averments are insufficient to put it on notice—not only because it fails to distinguish between the two defendants, but also because it simply provides conclusory statements that recite the legal definitions of direct and induced infringement, rather than providing any specific factual material, or at a minimum showing how HTC's product uses the patent claim elements. Under *Twombly* and *Iqbal*, a complaint must "at least contain factual allegations that the accused product practices every element of at least one exemplary claim." *Novitaz, Inc. v. inMarket Media, LLC*, No. 16-cv-06795-EJD, 2017 WL 2311407, at *3 (N.D. Cal. May 26, 2017). Without sufficient "factual allegations that would permit a court to infer that a required element of the patent claim was satisfied, it is hard to see how infringement would be 'probable.'" *Id.*

As in *Novitaz*, ESPI has failed to make "plausible allegations about how the accused products practices the elements of any claim of the patent[s]." *Novitaz*, 2017 WL 2311407, at *3. ESPI makes no attempt at all to walk through the elements of the claims at issue, nor provide any information about how HTC's product functions. The only factual allegations that provide any background or specificity at all are as follows:

> Commencing within the last two years in the United States of America, defendants have jointly and collectively tested, demonstrated, provided instructions for, provided training

> for, marketed, made, used, offered to sell, sold, and imported their VIVE devices ("Devices"). The model name/numbers of the defendants' devices include, without limitation, VIVE.

Compl. ¶ 7. Other than these two sentences, the remainder of ESPI's Complaint very briefly states two claims for relief that provide only legal conclusions. For example, in ESPI's claim for direct infringement of the Patents, the Complaint merely states that "defendants have used, tested, demonstrated, manufactured, imported, promoted, marketed, offered for sale, and/or sold the Devices by using one or more of plaintiff's Claims" and could only have "accomplished the foregoing activities" by "utiliz[ing] one or more of plaintiff's Claims." *Id.* ¶ 8. The Complaint offers no factual allegations about what the VIVE devices are or how they function, how they utilize ESPI's claims, or any information about them at all whatsoever that would put any defendant on notice of its allegedly infringing conduct. Indeed, ESPI makes no attempt even to parrot the claim language. ESPI's claim for induced infringement is similarly bare and conclusory. For these reasons, ESPI's Complaint must be dismissed for failure to state a claim. ESPI is granted leave to amend should it be able to provide more detailed material to its claims.

Because ESPI may amend its claims, the sufficiency of ESPI's allegations regarding HTC's knowledge, egregious behavior, and willfulness will also be addressed. HTC argues that the Complaint fails to allege facts showing that HTC had knowledge of the Patents, as is necessary for a willful and induced infringement claim. ESPI responds that in light of the Supreme Court's decision in *Halo Electronics, Inc. v. Pulse Electronics, Inc.*, 135 S. Ct. 1923 (2016), it need not plead the "'who, what and when' as to notice." Opp. at 16. Cases postdating *Halo*, however, confirm that ESPI's contention is incorrect. *See, e.g.*, *Novitaz*, 2017 WL 2311407, at *5 ("[W]illfulness . . . is still a factual determination that a court must make, and district courts have continued, post-*Halo*, to treat it as a separate claim that can be subject to a motion to dismiss."); *Finjan, Inc. v. Cisco Sys. Inc.*, No. 17-cv-00072-BLF, 2017 WL 2462423, at *4 (N.D. Cal. June 7, 2017) ("District courts have continued to enforce this requirement [of knowledge] in evaluating the sufficiency of willfulness claims.").

Here, ESPI provides nothing more than its conclusory statement that "Plaintiff's Patents

were well known to defendants at all times relevant hereto, plaintiff having given each defendant written notice of the Patents." Compl. ¶ 6. ESPI provides no information as to what the written notice entailed or when it was delivered to, or received by, HTC such that HTC's knowledge could reasonably be inferred. Nor are ESPI's allegations regarding "defendant's exercise of due diligence pertaining to intellectual property affecting its Devices," *id.* ¶ 13, sufficient to establish knowledge. *See Nanosys, Inc. v. QD Vision, Inc.*, No. 16-cv-01957-YGR, 2016 WL 4943006, at *4 (N.D. Cal. Sept. 16, 2016) (finding allegation that defendant's "founders and key employees were, at least, aware of and knowledgeable about developments and advances in the field and patent filings through their activities conducted through industry conferences, research, and development" insufficient to support an inference of pre-suit knowledge of patent). ESPI's failure to allege pre-suit knowledge is fatal to its willful and induced infringement claim.

For the same reasons, ESPI falls woefully short of sufficiently pleading egregious behavior and willfulness. ESPI must provide factual allegations that are specific to HTC's conduct and do not merely recite the elements of the statutory violations, but rather provide factual material that puts HTC on notice of its allegedly unlawful actions. For these reasons, ESPI's claims are dismissed with leave to amend.

CONCLUSION

For the foregoing reasons, HTC's motion to dismiss the Complaint for failure to state a claim is granted. ESPI is granted leave to amend its Complaint within 20 days of the date of this Order.

IT IS SO ORDERED.

Dated: 3/16/18

RICHARD SEEBORG
United States District Judge