

**BLUE SPIKE, LLC, Plaintiff,**

**v.**

**GOOGLE INC. Defendant.**

Case No. 14-cv-01650-YGR.

**United States District Court, N.D. California.**

September 8, 2015.

## **ORDER GRANTING MOTION FOR JUDGMENT ON THE PLEADINGS**

**Re: Dkt. No. 59**

YVONNE GONZALEZ ROGERS, District Judge.

Defendant Google Inc. ("Google") moves for judgment on the pleadings, arguing the asserted claims of the patents-in-suit—which broadly cover computer-based content comparisons—are invalid as embodying an unpatentable "abstract idea" under Section 101 of the Patent Act. (Dkt. No. 59 ("Mot.").) Plaintiff Blue Spike, LLC ("Blue Spike") opposes the motion. (Dkt. No. 63 ("Oppo.").) Having carefully considered the papers submitted, the patents-in-suit, the record in this case, and the arguments of counsel at the June 30, 2015 hearing, and good cause shown, the Court GRANTS the motion.

### **I. BACKGROUND**

The plaintiff asserts five patents in this lawsuit: U.S. Patent Nos. 7,346,472 (the "'472 Patent"), 7,660,700 (the "'700 Patent"), 7,949,494 (the "'494 Patent"), 8,214,175 (the "'175 Patent"), and 8,712,728 (the "'728 Patent").

<sup>[1]</sup> Other than the first, each is a continuation of the preceding application. All five are entitled "Method and Device for Monitoring and Analyzing Signals" and share the same specification. The patents include both method and system claims. Generally, the patents address the creation of "abstracts" (essentially digital fingerprints, hashes, or the like) from various "signals" (electronic versions of human-perceptible works in formats such as audio, visual, audiovisual, or text) based on perceptible qualities inherent to those signals.<sup>[2]</sup> The abstracts of "reference signals" are added to a reference database. Thereafter, new signals ("query signals") can be similarly processed, the resulting abstract checked against the database to determine whether the new signal matches any earlier analyzed signal. At a high level, the patents contemplate determining whether one piece of content—e.g., a picture, a song, or a video— matches another, or the extent to which they are similar. The plaintiff accuses Google's "products, systems and/or services," including ContentID and YouTube, of infringement. (Dkt. No. 47 ("FAC") ¶ 28.) The plaintiff also contends the patents cover a wide array of comparison technologies, including biometric systems such as iris scanners. (See Oppo. at 20.)

The Court finds that claim 1 of the '472 Patent is generally representative of all asserted claims for purposes of this motion.<sup>[3]</sup> It reads as follows:

A method for monitoring and analyzing at least one signal comprising:

receiving at least one reference signal to be monitored;

creating an abstract of said at least one reference signal wherein the step of creating an abstract of said at least one reference signal comprises:

inputting the reference signal to a processor;

creating an abstract of the reference signal using perceptual qualities of the reference signal such that the abstract retains a perceptual relationship to the reference signal from which it is derived;

storing the abstract of said at least one reference signal in a reference database;

receiving at least one query signal to be analyzed;

creating an abstract of said at least one query signal wherein the step of creating an abstract of said at least one query signal comprises:

inputting the at least one query signal to the processor;

creating an abstract of the at least one query signal using perceptual qualities of the at least one query signal such that the abstract retains a perceptual relationship to the at least one query signal from which it is derived; and

comparing the abstract of said at least one query signal to the abstract of said at least one reference signal to determine if the abstract of said at least one query signal matches the abstract of said at least one reference signal.<sup>[4]</sup>

'472 Patent at 15:33-60.

In its opposition brief, Blue Spike argued claim construction was needed prior to resolution of Google's motion, suggesting the claim constructions previously issued by the Eastern District of Texas involving four of the five patents at issue should be adopted. See *Blue Spike, LLC v. Texas Instruments, Inc.*, No. 6:12-CV-499-MHS-CMC, 2014 WL 5299320, at \*4 (E.D. Tex. Oct. 16, 2014) ("Prior Construction"). At the hearing, Google stipulated to the adoption of those constructions solely for purposes of resolving its motion for judgment on the pleadings.<sup>[5]</sup> Most critically in terms of the plaintiff's argument, the Texas court construed "abstract" as "a data-reduced representation of a signal that retains a perceptual relationship with the signal and differentiates the data-reduced representation from other data-reduced representations." (*Id.* at \*14.)

The Court further notes that the specification does not teach the specifics of implementation—it includes no source code, detailed algorithms or formulas, or the like.

## II. LEGAL STANDARD

Under Federal Rule of Civil Procedure 12(c), judgment on the pleadings may be granted when, accepting as true all material allegations contained in the nonmoving party's pleadings, the moving party is entitled to judgment as a matter of law. *Chavez v. United States*, 683 F.3d 1102, 1108 (9th Cir. 2012). The applicable standard is essentially identical to the standard for a motion to dismiss under Rule 12(b)(6). *United States ex rel. Cafasso v. Gen. Dynamics C4 Sys., Inc.*, 637 F.3d 1047, 1054 n.4 (9th Cir. 2011). Thus, although the Court must accept well-pleaded facts as true, it is not required to accept mere conclusory allegations or conclusions of law. See *Ashcroft v. Iqbal*, 556 U.S. 662, 678-79 (2009).

In ruling on a motion for judgment on the pleadings, the Court "need not . . . accept as true allegations that contradict matters properly subject to judicial notice or by exhibit" attached to the complaint. *Sprewell v. Golden State Warriors*, 266 F.3d 979, 988 (9th Cir. 2001) (citation omitted). A challenge under Section 101 of the

Patent Act may be brought as a motion for judgment on the pleadings. See Open Text S.A. v. Box, Inc., No. 13-CV-04910-JD, 2015 WL 269036, at \*2 (N.D. Cal. Jan. 20, 2015) (citing buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1352 (Fed. Cir. 2014)). A court may decide such a motion prior to claim construction. See Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.), 687 F.3d 1266, 1273-74 (Fed. Cir. 2012) ("[C]laim construction is not an inviolable prerequisite to a validity determination under § 101. We note, however, that it will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.").

### III. DISCUSSION

#### A. Legal Framework

The scope of subject matter eligible for patent protection is defined in Section 101 of the Patent Act: "Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. 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. v. CLS Bank Int'l, 134 S. Ct. 2347, 2354 (2014) ("Alice") (quoting Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107, 2116 (2013)). In applying this exception, courts "must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more." Alice, 134 S. Ct. at 2354 (internal quotations and alterations omitted); see also Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289, 1301 (2012).

Thus, in determining whether claims are patent-ineligible, a court must first determine whether they are directed to a patent-ineligible concept, such as an abstract idea. See Diamond v. Chakrabarty, 447 U.S. 303, 309 (1980). "A principle, in the abstract, is a fundamental truth . . . [which] cannot be patented." Gottschalk v. Benson, 409 U.S. 63, 67 (1972) (internal citations and quotations omitted). "Phenomena of nature, though just discovered, mental processes, and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work." Id.; see also CyberSource Corp. v. Retail Decisions, Inc., 654 F.3d 1366, 1371 (Fed. Cir. 2011) ("[M]ental processes are not patent-eligible subject matter because the `application of [only] human intelligence to the solution of practical problems is no more than a claim to a fundamental principle."). To determine whether patent claims are directed to an abstract idea, the Court must "distill[] the gist of the claim[s]." Open Text S.A., 2015 WL 269036, at \*2 (citing Bilski v. Kappos, 561 U.S. 593, 611-12 (2010)).

If the claims are directed to an abstract idea, a court must then consider whether they nevertheless involve an "inventive concept" such that "the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself." Alice, 134 S. Ct. at 2355 (quoting Mayo, 132 S. Ct. at 1294); see also DDR Holdings, LLC v. Hotels.com, L.P., 773 F.3d 1245, 1255 (Fed. Cir. 2014) ("Distinguishing between claims that recite a patent-eligible invention and claims that add too little to a patent-ineligible abstract concept can be difficult, as the line separating the two is not always clear."). "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, Nat. Ass'n, 776 F.3d 1343, 1347-48 (Fed. Cir. 2014) (alteration in original); see also buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1354 (Fed. Cir. 2014) ("The Court in Alice made clear that a claim directed to an abstract idea does not move into section 101 eligibility territory by `merely requir[ing] generic computer implementation." (alteration in original)).

The burden of establishing invalidity rests on the movant. See Microsoft Corp. v. i4i Ltd. P'ship, 131 S. Ct. 2238, 2245 (2011) (citing 35 U.S.C.A. § 282). However, on a motion for judgment on the pleadings for invalidity, where no extrinsic evidence is considered, the "clear and convincing" standard for weighing evidence in determining a patent's validity is inapplicable. See Shortridge v. Found. Constr. Payroll Serv., LLC, No. 14-CV-04850-JCS, 2015 WL 1739256, at \*7 (N.D. Cal. Apr. 14, 2015) (citing Modern Telecom Sys. LLC v. Earthlink, Inc., No. 14-CV-0347-DOC, 2015 WL 1239992, at \*8 (C.D. Cal. Mar. 17, 2015)).

After *Alice*, the Federal Circuit has held a number of patent claims directed to abstract ideas to be invalid. A sampling follows:

- "[D]igital image processing" claims were directed to "an abstract idea because [they described] a process of organizing information through mathematical correlations and [were] not tied to a specific structure or machine." Digitech Image Technologies, LLC v. Electronics for Imaging, Inc., 758 F.3d 1344, 1347, 1350 (Fed. Cir. 2014).
- Claims covering "methods and machine-readable media encoded to perform steps for guaranteeing a party's performance of its online transaction" were merely "directed to creating familiar commercial arrangements by use of computers and networks." buySAFE, Inc. v. Google, Inc., 765 F.3d 1350, 1351 (Fed. Cir. 2014).
- Patent "directed to a method for distributing copyrighted media products over the Internet where the consumer receives a copyrighted media product at no cost in exchange for viewing an advertisement" was directed to an abstract idea, and "routine additional steps such as updating an activity log, requiring a request from the consumer to view the ad, restrictions on public access, and use of the Internet [did] not transform [the] otherwise abstract idea into patent-eligible subject matter." Ultramercial, Inc. v. Hulu, LLC, 772 F.3d 709, 709, 716 (Fed. Cir. 2014).
- Patents covering a method for optical character recognition in connection with scanning hard copy documents were directed to an abstract idea and, even if limited "to a particular technological environment," were invalid because "[s]uch a limitation has been held insufficient to save a claim in this context." Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1348 (Fed. Cir. 2014).
- Patent relating to a "method of price optimization in an e-commerce environment. . . claims no more than an abstract idea coupled with routine data-gathering steps and conventional computer activity. . . ." OIP Technologies, Inc. v. Amazon.com, Inc., 788 F.3d 1359, 1360 (Fed. Cir. 2015).
- Claims directed to "tracking financial transactions to determine whether they exceed a pre-set spending limit (i.e., budgeting)" covered "an abstract idea and [did] not otherwise claim an inventive concept." Intellectual Ventures I LLC v. Capital One Bank (USA), 792 F.3d 1363, 1367, 1370 (Fed. Cir. 2015).

Notably, however, in DDR Holdings, LLC v. Hotels.com, L.P., the Federal Circuit upheld a finding of validity as to a patent with claims "directed to systems and methods of generating a composite web page that combines certain visual elements of a 'host' website with content of a third-party merchant." 773 F.3d 1245, 1248 (Fed. Cir. 2014) ("For example, the generated composite web page may combine the logo, background color, and fonts of the host website with product information from the merchant."). The Federal Circuit found the patent "address[es] a business challenge (retaining website visitors) . . . particular to the Internet," but cautioned "that not all claims purporting to address Internet-centric challenges are eligible for patent." *Id.* at 1257-59.

## B. Analysis

### 1. Abstract Idea

As a threshold matter, the Court must determine whether the asserted claims are directed to an abstract idea. The Court finds that the claims at issue are generally directed to the abstract concept of comparing one thing to another.

The patents seek to "model," on a computer, "the highly effective ability of humans to identify and recognize a signal." (See `728 Patent at 4:47-48.) By their own terms, therefore, the patents simply seek to cover a general purpose computer implementation of an abstract idea long undertaken within the human mind. See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014) ("The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions."). Despite the opinion of plaintiff's expert, on their face the patents do not purport to recognize aspects of the compared works that only a computer—but not a human— could reasonably detect. The specification itself emphasizes the goal of modeling human capacity. Nothing in the claim language suggests the patents were not intended to encompass computerized content comparisons based on human-perceptible characteristics. To the contrary, the Prior Construction of "abstract" (a key term at issue in every asserted claim) states that the abstract has a "perceptual relationship" to the signal, and the Prior Construction for related terms reveals the patents are generally directed to human-observable aspects of signals.<sup>61</sup>

The method by which the claims contemplate enabling these comparisons mirrors the manner in which the human mind undertakes the same task. Perceptible characteristics of an item (e.g., a photograph) are used as a heuristic to compare that item to others. For instance, to borrow an example from the specification, one might compare paintings of sunsets by focusing on "perceptual characteristics related to the sun," e.g., its color or position. `728 Patent at 14:52-60; see also *id.* ("The present invention . . . involves the scanning of an image involving a sun, compressing the data to its essential characteristics (i.e., those perceptual characteristics related to the sun) and then finding matches in a database of other visual images (stored as compressed or even uncompressed data). By studying the work of other artists using such techniques, a novice, for example, could learn much by comparing the presentations of a common theme by different artists."). One might also identify a criminal by comparing a police artist sketch to various suspect photographs. *Id.* at 14:61-64. True, certain asserted claims involve only a subset of the mental process—e.g., creating the "abstract," but not necessarily using it for anything. That these claims cover only a part of the broader abstract idea does not rescue them from falling within the realm of the abstract.

Blue Spike argues, with the support of an expert declaration, that its claims cover an invention that can accomplish comparisons beyond a human's capabilities. (See Papakonstantinou Decl., Dkt. No. 63-11, at ¶¶ 13-17 (opining that the creation of an abstract as contemplated in the patents-in-suit "requires use of a computing device configured to utilize data-reduction techniques" which a human "would not be capable" of mentally performing, particularly where "accuracy (down to even a single bit) . . . is essential").) Even if credited, this premise is legally false; the claims may be abstract even if they contemplate use of "a computer that processe[s] streams of bits." See Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (citing *Alice*, 134 S. Ct. at 2358).

Blue Spike further disputes Google's contention that a patent that seeks to mirror human perception and analysis on a computer is abstract with a "slippery slope" argument, contending such a finding would also render future breakthroughs in artificial intelligence technology un-patentable. To the extent artificial intelligence inventions—or the present "invention"—involve an inventive concept, they could be patentable even if they have, at their core, an abstract concept. The Court thus turns to the question of whether the asserted claims include an inventive concept.

## 2. Inventive Concept

As noted, the patents are directed to an abstract idea—the idea of comparing one thing to another. Blue Spike contends the claims would cover a nearly limitless scope of signals for comparison—ranging from irises to songs. However, the claims do not involve any "inventive concept." See *Alice*, 134 S. Ct. at 2355. Instead, they merely discuss using routine computer components and methods (e.g., general purpose computers, compression, and databases) to accomplish this task with, in certain circumstances, greater efficiency than a human mind could achieve. See *Kroy IP Holdings, LLC v. Safeway, Inc.*, No. 2:12-CV-800-WCB, 2015 WL 3452469, at \*13 (E.D. Tex. May 29, 2015) ("The greater efficiency with which the computer can perform tasks that a human could perform does not render the inventions patentable."); *Bancorp Services, L.L.C. v. Sun Life Assur. Co. of Canada (U.S.)*, 687 F.3d 1266, 1278 (Fed. Cir. 2012) ("[T]he use of a computer in an otherwise patent-ineligible process for no more than its most basic function—making calculations or computations—fails to circumvent the prohibition against patenting abstract ideas and mental processes."). Merely adding limitations involving the use of general purpose computer components to an otherwise abstract concept does not constitute an inventive concept sufficient to save a claim from invalidity. See *Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1008 (Fed. Cir. 2014) (finding claims lacked an "inventive concept," despite being limited to computer-aided methods and systems, where the steps at issue could be "carried out in existing computers long in use" and "done mentally") (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). The mere fact that the claims may cover a computer implementation that surpasses in scope or complexity what a human mind is capable of accomplishing is irrelevant where the claims are not limited to such complex activities, but also encompass more basic approaches. *Id.* Here, to the extent the asserted claims do encompass comparisons that a human is not readily capable of undertaking—an argument belied by the specification—they nevertheless *also* cover and preempt a wide range of comparisons that humans can and, indeed, have undertaken from time immemorial. Accordingly, given the patents claim an abstract idea but lack any inventive concept, they fail to meet the legal standard for patentability.

## 3. Additional Claims

The foregoing two-step analysis, largely focused on claim 1 of the '472 Patent, applies with equal force to all claims at issue. The only material distinctions, e.g., inclusion of generic computer components, do not save those claims from invalidity. See, e.g., *Cogent Med., Inc. v. Elsevier Inc.*, 70 F. Supp. 3d 1058, 1066 (N.D. Cal. 2014) (finding certain "system and computer component claims rise and fall with the method claims" where they merely involve "generic computer components configured to implement the [abstract] idea"). The Court addresses each of the remaining claims in turn:

### a. '472 Patent

- Claim 2 is a dependent claim, taking the method of claim 1 (the representative claim) but generating abstracts of only portions of signals, instead of signals in their entirety. The claim still encompasses the abstract idea discussed above and this limitation does not constitute an inventive concept.
- Claim 3 covers largely the same ground as the representative claim, but includes incremental counting steps—namely, a method for tracking the number of matches detected by the comparison process. This basic computer-based counting fails to rescue the claim from the realm of the abstract. See *Ultramercial, Inc.*, 772 F.3d at 712, 715 (characterizing a step of "recording [a] transaction event to [an] activity log, . . . including updating the total number of times" the event has occurred, as "routine, conventional activity").
- Claim 4 is dependent on claim 3 and merely adds routine steps for recording each match and generating a report identifying the matched signals. See *Alice*, 134 S. Ct. at 2359 (mere "use of

a computer to create electronic records, track multiple transactions, and issue simultaneous instructions" does not constitute an inventive concept).

- Claim 8 mirrors, in substance, the representative claim, with the further limitation—immaterial to this analysis—that more than one reference signal is used, and also including an incremental counter for matches.

- Claim 11 is a system claim, involving generic computer components and routines ("a computerized system," "a processor," "a reference database," and "input[s]") to accomplish the basic method of the representative claim. Unlike the earlier discussed claims, this claim is not limited to detecting an exact "match," but instead compares the two abstracts to generate "an index of relatedness." The abstract idea discussed above is "comparison"—whether to find exact matches, or to determine the extent of similarity. Further, as noted, a system claim that merely incorporates generic computer components to implement the abstract idea of the method claim fails along with the method claim. Finally, the limitation of selecting certain criteria to consider in comparing things falls squarely within the heuristic approach the human mind takes to solving the same problem. It therefore does not rescue the claim from abstraction, nor does it constitute an inventive concept.

#### b. '700 Patent

- Claim 1 covers "[a]n electronic system," similar to claim 11 of the '472 patent, but limited to matching instead of broader comparisons. It similarly fails.

- Claim 10 depends on claim 1, but includes the limitation that "a cryptographic protocol" is applied to one or more of the abstracts at issue. The claims do not discuss a novel cryptographic method, but merely contemplate "'well-understood, routine, conventional activity.'" See *Intellectual Ventures II LLC v. JP Morgan Chase & Co.*, No. 13-CV-3777 AKH, 2015 WL 1941331, at \*14 (S.D.N.Y. Apr. 28, 2015) (citing *Mayo*, 132 S. Ct. at 1298). Thus, the inclusion of this limitation does not constitute an inventive concept.

- Claim 11 depends on claim 10, but is further limited to the use of a cryptographic protocol that has "at least a hash or digital signature," and the storage of the encrypted abstract. The patents do not explain a novel method for generating hashes or digital signatures—they merely call for the use of these conventional cryptographic methods.

- Claim 12 depends on claim 1, but adds "an embedder to embed uniquely identifiable data into at least one" of the signals. As the specification itself notes, however, such watermarking (or use of "additive signals") was in the prior art, and its inclusion here does not constitute an inventive concept. See, e.g., '700 Patent at 4:44-53, 13:37-40 ("Traditionally, monitoring is accomplished by *embedding* some *identifier* into the signal, or affixing the identifier to the signal, for later analysis and determination of royalty payments.") (emphasis supplied).

- Claim 18 is a method claim, apparently for a digital rights management ("DRM") or other routine data transmission system. The claim notes the match determination is undertaken "to enable authorized transmission or use of the query signal." As to the data transmission issue, the claim does no more than present this basic recitation of purpose, but does not present an inventive method to facilitate data transmission. The claim is otherwise similar to the representative claim, but is further limited to generation of abstracts based on "signal characteristic parameters configured to differentiate between a plurality of versions of the data signal." This is not a unique approach; indeed, as noted above, humans also focus on discrete characteristics to facilitate comparisons between two similar things, e.g., paintings of sunsets. These additional limitations do not save the claim.

- Claim 21 is dependent on claim 18, but limited to abstracts "derived from one of a cognitive feature or a perceptible characteristic" of the signals. This broad "limitation" (covering use of *any* aspect of a signal that a human could perceive) is not meaningful for purposes of the preceding analysis.
- Claim 27 is dependent on claim 18, but involves comparison instead of matching. As noted above, this is a distinction without a difference in regards to the claim's validity.
- Claim 40 covers a process similar to the representative claim, but again is focused on certain parameters and directed to similarity comparison instead of direct matching.
- Claim 51 is dependent on claim 40, but includes an additional step: "distributing at least one signal based on the comparison step." This is, again, apparently directed to the *purpose* of DRM or access control—but its inclusion does not constitute an inventive step sufficient to save the claim.

#### c. `494 Patent

- Claim 11 is a system claim similar to claim 11 of the `472 Patent, but using "perceptible characteristics representative of parameters to differentiate between versions of the reference signal" to generate abstracts (instead of "selectable criteria"). This limitation is not materially distinct from the similar limitation discussed above regarding claim 18 of the `700 Patent.
- Claim 15 is dependent on claim 11, but includes the further limitation that "the stored abstracts comprise a self-similar representation of at least one reference signal." In light of the specification, this limitation simply appears to contemplate generating a hash or compression of the signal to serve as the abstract. See `494 Patent at 7:49-54. As noted above, the addition of this well understood, routine activity does not save the claim.
- Claim 17 depends on claim 11, and includes the limitation that "at least one abstract comprises data describing a portion of the characteristics of its associated reference signal." As with claim 2 of the `472 Patent, generating an abstract based on only a portion of the characteristics of the signal, instead of the signal in its entirety, still falls squarely within the realm of the abstract concept discussed above.
- Claim 29 covers a system materially similar to that of claim 11, but focuses on matching instead of comparisons and requires the use of more than one reference signal. Again, none of these minor variations saves the claim.

#### d. `175 Patent

- Claim 1 covers a system similar to many of the preceding claims, contemplating the use of generic computer components, such as "non transitory memory," "processor[s]," and "database [s]." As with some of the preceding claims, for instance claim 15 of the `494 Patent, the abstract must be "similar" to the signal from which it is derived, but reduced in size (e.g., a hash). The key distinction is that this claim contemplates the creation of *two* databases of distinct abstracts for the reference signals, and does *not* include a comparison step. This claim is therefore directed to accomplishing a subset of the abstract idea discussed above, but twice for each signal and in a different manner each time. The former aspect broadens, rather than limits, the claim's scope. Neither constitutes an inventive concept sufficient to save the claim.
- Claim 8 is structured similarly to claim 1, but involves only a single database and focuses on facilitating possible comparisons "of different versions of a visual work and a multimedia work" by generating abstracts based on "signal characteristic parameters that differentiate between"

different versions of the works. Limiting its scope to broad categories of possible signals—visual and multimedia works—does not save the claim. As noted above as to claim 18 of the `700 Patent, neither does the use of "signal characteristic parameters."

- Claim 11 is similar to claim 8, but does not require the use of signal characteristic parameters and includes a comparison step with a query signal, as do many of the earlier addressed claims.

- Claim 12 depends on claim 11, with the additional limitation that the compare process indicates the absence of a match between the query signal abstract and the reference signal abstracts stored in a database. This additional routine limitation does not save the claim.

- Claim 16 is dependent on claim 12, but includes the further limitation that the processor generating and storing the abstracts "is programmed or structured to use an algorithm to generate" the abstracts. This generic reference to the use of an unspecified "algorithm" hardly limits the scope of claim 12, if at all, and certainly does not save the claim from invalidity. See *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.").

- Claim 17 is similar to claim 11, but the comparison component is absent and the claim instead includes a requirement that the system be "programmed or structured to apply at least one of psycho-acoustic model and psycho-visual model to generate" the reference abstracts. The specification notes that psycho-acoustic/psycho-visual-focused compression is in the prior art and explains the approach is intended to "mimic[] human perception." See, e.g., `175 Patent at 7:40-49; see also *id.* at 14:41-44 ("Similar to the goals of a psychoacoustic model, a psychovisual model attempts to represent a visual image with less data, and yet preserve those perceptual qualities that permit a human to recognize the original visual image."); *id.* at 7:42-43 ("Most compression is either lossy or lossless and is designed with psychoacoustic or psychovisual parameters. That is to say, the signal is compressed to retain what is `humanly-perceptible."); *id.* at 4:18-21 (referencing prior art data reduction techniques based on "perceptual models" such as AAC, MP3, JPEG, GIF, or MPEG encoding). This approach falls squarely within the prior art and/or the abstract concept discussed above, and introduces no inventive concept.

e. `728 Patent

- Claim 1 describes a method for using an "electronic system" to create "data reduced,"<sup>[21]</sup> "self-similar" abstracts of one reference signal, doing the same for one query signal, and comparing the two to determine whether the abstracts match. This claim's scope is similar to that of the representative claim; the additional limits of creating a hash-based (or similar) abstract, and of using an "electronic system," do not save the claim for the reasons previously explained.

- Claim 4 depends on claim 1, but also involves the creation of a second abstract, from a second reference signal. This does nothing to save the claim.

- Claim 5 depends on claim 4, but discusses "changing selected criteria" for generating the reference signal abstracts. The limitation of enabling the abstract generation to be based upon selectable criteria does not save the claim for the reasons discussed above.

- Claim 16 depends on claim 1, but includes a match counter. For the reasons discussed above, including as to claim 3 of the `472 Patent, this limitation does not save the claim.

- Claim 25 essentially describes a system for implementing claim 1, with a recitation of generic components (e.g., a "receiver" and a "processor"). This claim therefore falls along with the method claim.
- Finally, claim 26 depends on claim 25, with the additional limitation that the "system is configured to apply at least one spectral transform" to the reference signal during the abstract-generation process. As with the unspecific reference to use of "algorithms" discussed above, the reference to use of "spectral transforms"—acknowledged by the specification to be a mathematical method to process signals, maintaining "some cognitive or perceptual relationship with the original analog waveform"—falls within the realm of the abstract. See `728 Patent at 11:25-31. The specification suggests "spectral transforms" refer to prior art; certainly, the patent does nothing to teach a person having ordinary skill in the art how to perform a spectral transform, taking for granted that such a process would be well understood at the time the patent was filed. See *id.* at 4:20-26. Moreover, the Federal Circuit has held that system claims directed to describing mathematical transformations undertaken in connection with digital image processing were not directed to patent-eligible subject matter where they did not "require any physical embodiment." See *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1350 (Fed. Cir. 2014). This claim, similarly, appears directed to application of a mathematical model to data in a digital environment with no resulting physical embodiment.

Thus, all claims at issue are not patent-eligible.

## IV. CONCLUSION

For the foregoing reasons, the Court GRANTS the defendant's motion for judgment on the pleadings, finding the asserted claims listed in the motion to be invalid. In light of the rulings herein, the plaintiff's request for leave to amend is denied as futile. See *Foman v. Davis*, 371 U.S. 178, 182 (1962).

This Order terminates Docket Number 59.

IT IS SO ORDERED.

[1] The plaintiff filed copies of each patent as attachments to its initial complaint. (Dkt. No. 1.) The defendant filed additional copies, with the asserted claims highlighted, as exhibits to the instant motion. (Dkt. No. 60.) The asserted claims are as follows: 1-4, 8, and 11 of the `472 Patent; 1, 10-12, 18, 21, 27, 40, and 51 of the `700 Patent; 11, 15, 17, and 29 of the `494 Patent; 1, 8, 11, 12, 16, and 17 of the `175 Patent; and 1, 4, 5, 16, 25, and 26 of the `728 Patent. (See Mot. at 4; Oppo. at 3 n.2.) The parties dispute whether claim 30 of the `728 Patent remains at issue. However, as the motion was not directed to that claim, neither is this Order. (See Oppo. at 3 n.2; Dkt. No. 64 ("Reply") at 15 n.9.)

[2] The specification contrasts this approach of relying on perceptual qualities inherent in the signal with what it calls the "traditional" or prior art approach of employing an "additive signal" (e.g., adding something to the signal, such as a title or watermark, to facilitate future identification and comparison). See `728 Patent at 4:53-55, 4:66-5:4, 5:15-25.

[3] Plaintiff did not stipulate to the use of this or any other representative claim(s) for purposes of this motion. Therefore, the Court must consider every claim at issue. Nevertheless, because 31 claims spanning five patents are asserted, and in light of the fact that each is "substantially similar and linked to the same abstract idea," the Court finds the following approach to resolving this motion justified: addressing first, in detail, a single, broadly representative claim (claim 1 of the `472 Patent), and then explaining briefly why any material distinctions or additional limitations in each of the other claims are irrelevant to the ultimate conclusion of invalidity. See *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1348 (Fed. Cir. 2014); see also *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 709 (Fed. Cir. 2014).

[4] This is an obvious typographical error. While the parties have not raised the issue of whether this is an error, the Court assumes for purposes of ruling on this motion that the `472 Patent should read "least" instead of "feast." The Court may only correct an obvious typographical error when, from the perspective of a person of ordinary skill in the art, "(1) the correction is not subject to reasonable debate based on consideration of the claim language and the specification and (2) the

prosecution history does not suggest a different interpretation of the claims." Ultimax Cement Mfg. Corp. v. CTS Cement Mfg. Corp., 587 F.3d 1339, 1352-53 (Fed. Cir. 2009) (citing Novo Industries, L.P. v. Micro Molds Corp., 350 F.3d 1348, 1354 (Fed. Cir. 2003)). The Court therefore corrects this obvious typographical error for purposes of this motion, substituting "least" for "feast." See Ultimax, 587 F.3d at 1353 (reversing district court's finding of claim indefiniteness where the district court should have instead inserted a missing comma into a chemical formula in a claim because a person of ordinary skill would have recognized and fixed the error).

[5] The parties have not argued that different constructions should apply to the most recent continuation patent. The Court sees no reason to depart from the Prior Construction in the case of the '728 Patent in light of the similarity of all five patents at issue, which, as noted above, share the same specification.

[6] For instance, pursuant to the stipulation of the parties in that case, including plaintiff Blue Spike, the order construed "perceptual quality" as being a "quality *perceived by a person*" and "recognizable characteristic" as a "characteristic visually or aurally *perceived by a person*." See Prior Construction at \*30 (emphasis supplied).

[7] This language appears redundant in light of the Prior Construction of the term "abstract," which describes the abstract as "data-reduced." Admittedly, "[i]t is settled law that when a patent claim does not contain a certain limitation and another claim does, that limitation cannot be read into the former claim in determining either validity or infringement." VMWare, Inc. v. Connectix Corp., No. C 02-3705 CW, 2005 WL 6220090, at \*12 (N.D. Cal. Mar. 25, 2005) (quoting SRI Int'l v. Matsushita Elec. Corp. of Am., 775 F.2d 1107, 1122 (Fed. Cir. 1985)). Nevertheless, the Court adopts the Prior Construction for purposes of this motion despite this apparent redundancy in light of the plaintiff's reliance thereon and defendant's stipulation thereto.

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