

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

IMAGE PROCESSING TECHNOLOGIES, §
LLC, §

Plaintiff, §

v. §

SAMSUNG ELECTRONICS CO., LTD., §
SAMSUNG ELECTRONICS AMERICA, §
INC., §

Defendants.

CIVIL ACTION NO. 2:16-CV-00505-JRG

ORDER

Before the Court is Defendants Samsung Electronics Co., Ltd. and Samsung Electronics America Inc.’s (collectively “Samsung”) Motion for Partial Summary Judgment that Claim 29 of U.S. Patent No. 6,959,293 is Directed to Patent-Ineligible Subject Matter (Dkt. No. 210). For the reasons set forth below, the Motion is **GRANTED** and the Court finds that Claim 29 of the patent-in-suit is ineligible for patent protection under 35 U.S.C. § 101.

I. BACKGROUND

On May 13, 2016, Plaintiff Image Processing Technologies, LLC (“IPT”) filed suit against Samsung, alleging infringement of three patents, including U.S. Patent No. 6,959,293 (“the ’293 Patent”). (Dkt. No. 1.) Within three months of IPT serving its original Infringement Contentions, Samsung filed multiple *inter partes* review petitions, including a petition on all then-asserted claims of the ’293 Patent. (Dkt. No. 57.) The Patent Trial and Appeal Board (“PTAB”) instituted review of Claim 22 of the ’293 Patent, but declined to institute review on the other then-asserted claims, including Claim 29. (Dkt. No. 159 at 4–5.) On September 9, 2017, Samsung filed the

instant Motion seeking partial summary judgment that Claim 29 of the '293 Patent is invalid under 35 U.S.C. § 101. (Dkt. No. 210.) The Court held a hearing on the instant Motion on October 17, 2017. (Dkt. No. 303.)

A. United States Patent No. 6,959,293

United States Patent No. 6,959,293 is entitled, “Method and Device for Automatic Visual Perception.” The '293 Patent, which claims improved visual perception processors and a method employing a “self-adapting” histogram calculation, explains that generating histograms using image processing parameters (*i.e.*, speed, direction, a time constant) in visual perception processors was already known in the art at the time of the invention. '293 Patent at 1:5–48. Image processing devices could use histograms to more accurately capture the information from a scene or to control an automatism. *Id.* at 1:15–25. The prior art methods of generating histograms in image processing were used to “acquire, manipulate and process statistical information.” *Id.* at 1:35–38.

The '293 Patent claims visual perception devices and methods for automatically detecting an event occurring in a space with respect to at least one parameter. '293 Patent at 1:55–57.

Independent Claim 29 of the '293 Patent recites:

- 29.** A method of analyzing parameters associated with an event by an electronic device, comprising:
- a) receiving data representative of one or more parameters of the event being detected;
 - b) calculating, for a given instant of time, a statistical distribution, defined as a histogram, of a selected parameter of the event being detected;
 - c) classifying the data by comparing its value to classification criteria stored in a classification memory;
 - d) enabling the calculating step when classified data satisfies predetermined time coincidence criteria; and

e) automatically updating, for each instant of time, the classification criteria stored in the classification memory based on statistical information associated with the histogram.

B. Claim Construction of the Claim Terms

On June 21, 2017, this Court issued its Claim Construction Order (Dkt. No. 174). The following terms appear in Claim 29 of the '293 Patent.

Claim Term	Construction
“histogram”	“a statistical representation of the frequency of occurrence with which values of a parameter fall within a series of intervals”
“parameter”	“a numerical characteristic”
“enabling the calculating step when classified data satisfies predetermined time coincidence criteria”	Plain and ordinary meaning
“automatically updating, for each instant of time, the classification criteria stored in the classification memory based on statistical information associated with the histogram”	“automatically updating, for each given instant of time, the classification criteria stored in the classification memory based on statistical information associated with the histogram”

II. LEGAL STANDARD

A. Motion for Summary Judgment

A motion for summary judgment is properly granted only if there is no genuine issue as to any material fact. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). A dispute about a material fact is “genuine” if the evidence presented, viewed in the light most favorable to the nonmoving party, would permit a reasonable jury to find for the nonmoving party. *Id.* However, such evidence, whether it is offered by the movant to satisfy their initial burden or by the nonmovant to defeat a properly supported motion for summary judgment, may not consist entirely of “conclusory allegations” or “unsubstantiated assertions.” *Little v. Liquid Air Corp.*, 37 F.3d 1069, 1075 (5th Cir. 1994). Likewise, such evidence must be “capable of being ‘presented in a

form that would be admissible in evidence.” *LSR Consulting, LLC v. Wells Fargo Bank, N.A.*, 835 F.3d 530, 534 (5th Cir. 2016) (emphasis in original).

B. Patent Eligible Subject Matter

Section 101 defines the scope of patent-eligible subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. “Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (internal quotation marks and brackets omitted). The Supreme Court has articulated a two-step test for “distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent eligible applications of those concepts.” *Alice Corp. Pty. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo*, 566 U.S. at 75-78).

The first step of the *Alice* framework requires a court to determine if the claims, “considered in light of the specification . . . [and] as a whole,” are “directed to excluded subject matter.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016). There is no bright line rule that guides this analysis. Instead, the Federal Circuit and the Supreme Court have “found it sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Id.* at 1335. Courts have considered “whether the claims are directed to an improvement to computer functionality versus being directed to an abstract idea.” *Id.* (“[S]ome improvements in computer-related technology when appropriately claimed are undoubtedly not abstract, such as a chip architecture, an LED display, and the like.”). “Although the two steps in the *Alice* framework ‘involve overlapping scrutiny of the content of the claims,’ the ‘Supreme Court’s formulation makes clear that the first-stage filter is a meaningful one, sometimes ending the § 101 inquiry.’” *Visual Memory LLC v. NVIDIA Corp.*, 867 F.3d 1253, 1258 (Fed. Cir. 2017) (quoting *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

If the claims are directed to ineligible subject matter, the court then proceeds to the second step of the *Alice* framework. The court “search[es] for an ‘inventive concept,’ or some element or combination of elements sufficient to ensure that the claim in practice amounts to ‘significantly more’ than a patent on an ineligible concept.” *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1255 (Fed. Cir. 2014); *see also BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (“[A]n inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.”).

III. ANALYSIS

Following the analytical framework set forth in *Alice*, the Court addresses whether Claim 29 of the ’293 Patent is directed to an abstract idea and, if so, whether it embodies an inventive concept.

A. Claim 29 Is Directed To An Abstract Idea

Claim 29 is directed to an “improved method” of analyzing parameters related to an event detected by an electronic device by generating a histogram while automatically updating the classification criteria. ’293 Patent at 1:39–44, 31:10–32:12. The claimed method comprises of (1) “calculating” a histogram using data from parameters of the event being detected; (2) classifying the data using “classification criteria;” (3) enabling the calculating step when the classified data satisfies certain criteria; (4) and automatically updating, “for each instant of time,” the classification criteria based on statistical information associated with the histogram. *Id.*; (*See also* Dkt. No. 174 (construing “parameter” as “a numerical characteristic”).) The ’293 Patent specification repeatedly emphasizes the claimed method’s use of a classification memory to automatically update classification criteria while the histogram is generated. ’293 Patent at 3:64–4:34, 32:5–6.

Samsung argues that Claim 29 is directed to an abstract idea because it is directed to “a general process of collecting data, and analyzing the data using techniques that could be accomplished mentally or with the aid of a pen and paper.” (Dkt. No. 210 at 6); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011) (“Methods that can be performed entirely in the human mind are unpatentable not because there is anything wrong with claiming mental method steps as part of a process containing non-mental steps, but rather because computational methods which can be performed *entirely* in the human mind are the types of methods that embody the ‘basic tools of scientific and technological work’ that are free to all men and reserved exclusively to none.”). Samsung explains that the claim has no limitation that prevents a human from performing the “histogram calculation” or adjusting the bin of the histogram at a “given instant of time.” (Dkt. No. 248 at 4.) Samsung argues that a teacher drawing histograms to analyze students’ test scores would meet the requirements of Claim 29. (Dkt. No. 210 at 7–8) (“A human can also practice the automatically updating step under IPT’s incorrect interpretation (which requires updating during the histogram calculation).”).

In response, IPT argues that Claim 29 is not directed to patent-ineligible subject matter because it is “an automatic method of calculating a histogram to analyze, for a given instant of time, parameters of an event” using an electronic device and a classification memory in that device “by automatically updating classification criteria for the histogram while the histogram is being calculated.” (Dkt. No. 228 at 7–8.) IPT summarily concludes that automatically updating the classification criteria of a histogram while the histogram is being calculated is not an abstract idea. (*Id.*) IPT does not explain why the “automatically updating” limitation transforms the abstract idea of generating a histogram into one deserving patent protection. Instead, IPT refers to a declaration by its expert witness, Dr. Bovik, who explains that updating classification criteria while the

histogram is being formed, based on statistical information associated with the histogram, was a “novel and innovative approach” to analyzing parameters associated with an event for given instants of time. (Dkt. No. 228, Ex. 8 at ¶¶35–45) (“Dr. Bovik Decl.”). This is not the correct inquiry for *Alice* step one. A “novel and innovative” claim is not necessarily an improvement to computer functionality. *Enfish*, 822 F.3d at 1336. A “claim for a *new* abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty” or §103 non-obviousness. *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016). For these same reasons, a PTAB denial of Samsung’s *inter partes* review petition on the ’293 Patent does not foreclose a finding of invalidity under 35 U.S.C. § 101. (Dkt. No. 228 at 1, 9.)

The Court is persuaded that Claim 29 is drawn to an abstract idea. IPT’s attempt to analogize Claim 29 with the claims at issue in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) is unavailing. Claim 29 differs from prior claims considered non-abstract, such as the claims at issue in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) and *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299, 1303 (Fed. Cir. 2016). In *Enfish*, the claims were directed to a specific improvement in computer operability, embodied in a self-referential table. *Enfish*, 822 F.3d at 1336. The Federal Circuit noted that the claims “[were] not simply directed to *any* form of storing tabular data, but instead [were] specifically directed to a *self-referential* table for a computer database.” *Id.* at 1337. The claimed self-referential table recited in the claims was a “specific type of data structure designed to improve the way a computer stores and retrieves data in memory.” *Id.* at 1339. The claimed invention achieved other benefits over conventional databases, including “increased flexibility, faster search times, and smaller memory requirements.” *Id.* at 1337.

Similarly, in *McRO*, the Federal Circuit held that a patent for automatically animating characters was not directed to an abstract idea. 837 F.3d at 1303. The claims at issue related to software that employed a set of improved rules to automatically set facial animation “keyframes,” or select animation frames with specified attributes that allow the software to automatically draw intervening frames. *Id.* at 1307–08. The software removed the conventional need for an animator to manually set the keyframes, which the specification described as “very tedious and time consuming, as well as inaccurate due to the large number of keyframes necessary to depict speech.” *Id.* at 1307. The Federal Circuit explained that the claimed invention used a combined order of specific rules that rendered information into a specific format that could be used to create a sequence of synchronized, animated characters. *Id.* at 1315. These specific features of the rules as claim limitations resulted in a claim that was specifically designed to achieve an improved technological result in conventional industry practice. *Id.* at 1316.

IPT does not explain, and the ’293 Patent does not describe, how the “automatically updating” limitation is an improvement to computer capabilities. The claimed method of generating a histogram, even a histogram where the classification criteria are automatically updated, recites a purely conventional computer implementation of a mathematical formula. *See Alice*, 134 S. Ct. at 2357–58. The use of “electronic device” and “classification memory” are not “specific, claimed features” that allow for an improvement to computer functionality. *See McRO*, 837 F.3d at 1313; *DDR Holdings*, 773 F.3d at 1256 (“Although many of the claims recited various computer hardware elements, these claims in substance were directed to nothing more than the performance of an abstract business practice on the Internet or using a conventional computer. Such claims are not patent-eligible.”). Rather, an “electronic device” is simply any generic electronic hardware unit, and “classification memory” is described as “a memory intended for

receiving [selected criteria].” ’293 Patent at 2:16–22. These claim terms significantly differ from the specific features limiting the claims at issue in *McRO*. See *McRO*, 837 F.3d at 1315 (“Claim 1 requires that the rules be rendered in a specific way: as a relationship between sub-sequences of phonemes, timing, and the weight to which each phoneme is expressed visually at a particular timing (as represented by the morph weight set).”). Accordingly, this Court finds that Claim 29 is directed to an abstract idea.¹

B. Claim 29 Does Not Recite An Inventive Concept

Having found that Claim 29 is directed to an abstract idea, the Court now examines the limitations of the claims to determine whether there is an “inventive concept” to “transform” the claimed abstract idea into patent-eligible subject matter. *Alice*, 134 S. Ct. 2347, 2357 (2014). The Supreme Court has emphasized that not all transformations or machine implementations infuse an otherwise abstract claim with an “inventive concept.” See *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 84–85 (“[S]imply implementing a mathematical principle on a physical machine, namely a computer, [i]s not a patentable application of that principle.”). The claims must include “additional features” that ensure the claims are “more than a drafting effort designed to monopolize the [abstract idea].” *DDR Holdings*, 773 F.3d at 1259.

IPT heavily relies on the Federal Circuit’s decision in *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1300 (Fed. Cir. 2016), in its argument that Claim 29 is patent-

¹ IPT further argues that the claimed method “does not preempt all methods of calculating a histogram or analyzing the parameters of an event.” (Dkt. No. 228 at 8.) This is not dispositive of the § 101 analysis. As this Court explained in *Network Architecture Innovations LLC v. CC Network, Inc.*, Case No. 2:16-cv-914-JRG, 2017 WL 1398276 (E.D. Tex. Apr. 18, 2017), “[t]o the extent that preemption is relevant to the § 101 analysis, it is a concern, not a determinative fact on patent eligibility.” 2017 WL 1398276, at *6 n.3. See also *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 85–86 (2012) (noting that the Supreme Court has repeatedly emphasized “a concern that patent law not inhibit future discovery by improperly tying up the use of laws of nature”); *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (“While preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.”). The Court finds the recent treatment of this topic by senior Circuit Judge Richard Linn in his dissent in *Smart Systems Innovations, LLC v. Chicago Transit Authority*, No. 2016-1233, 2017 WL 4654964 (Fed. Cir. Oct. 18, 2017), to be both instructive and worthy of consideration.

eligible. (Dkt. No. 228 at 9; Dkt. No. 272 at 3.) In *Amdocs*, the Federal Circuit spent the majority of its analysis on *Alice* step two, noting that “even if [the court] were to agree that claim 1 is directed to an ineligible abstract idea under step one, the claim is eligible under step two because it contains a sufficient ‘inventive concept.’” *Amdocs*, 841 F.3d at 1300 (noting that the claims at issue in *Amdocs* were much closer to those in *BASCOM* and *DDR Holdings*, two cases in which the Federal Circuit found that the claims were directed to an abstract idea but had an inventive concept). The claims at issue in *Amdocs* were directed to reducing congestion in network “bottlenecks,” while still allowing the data to be accessible from a central network. *Id.* at 1303. The claims required “computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.” *Id.* at 1300. The Federal Circuit had construed “enhance” as being dependent upon the invention’s distributed architecture. *Id.* The Federal Circuit noted that in this context, “distributed” meant that the network usage records were processed close to their sources before being transmitted to a centralized manager. *Id.* Accordingly, under the claim construction, the claims entailed an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). *Id.*

Unlike the claims in *Amdocs*, Claim 29 does not recite a “technological solution to a technological problem *specific to computer networks*.” *Id.* at 1301 (emphasis added). The ’293 Patent does not describe how automatically updating classification criteria while generating a histogram is an unconventional technological solution to a technological problem. Although the other claims of the ’293 Patent do address particular problems in the realm of image processing, (*i.e.*, a visual perception processor for automatically detecting an event occurring in a multidimensional space evolving over time with respect to at least one digitized parameter in the


form of a digital signal on a data bus,) Claim 29 is written so broadly and generically as to claim a mathematical formula of generating a histogram. '293 Patent at 26:34–42, 31:11–32:13. The additional step of “automatically updating, for each instant of time,” does not change the underlying algorithmic character of the claim. *Id.* at 31:11–32:13.

IPT argues that the benefits of Claim 29 include “improved operation with speedier processing that facilitates faster analysis and improved performance, improved classification range and improved anticipation characteristics.” (Dkt. No. 228 at 8 (citations omitted).) However, these “improvements” are all described in the specification as improvements to a histogram *processing unit*, which is a claim term in a different claim in the '293 Patent, unrelated to the method of Claim 29. *See* '293 Patent at 26:34–32 (“A visual perception processor for automatically detecting an event occurring in a multidimensional space”), 13:62–14:4, 14:54–59, 15:10–14 (“In a preferred embodiment, in addition to real time updating of classifier 101, the histogram processing unit 1 is configured to perform an anticipation function.”). The use of an “electronic device” to generate a histogram merely incorporates a computer to perform the “automatically updating” step faster, without achieving any substantively different result. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (Fed. Cir. 2015) (“As discussed above, our precedent is clear that merely adding computer functionality to increase the speed or efficiency of the process does not confer patent eligibility on an otherwise abstract idea.”). Accordingly, this Court finds that Claim 29 of the '293 Patent directed to an abstract idea and does not otherwise embody an inventive concept.

IV. CONCLUSION

For the reasons set forth above, the Court finds that Claim 29 of the '293 Patent is ineligible for patent protection under 35 U.S.C. § 101. Accordingly, the Court **GRANTS** Defendant's Motion for Partial Summary Judgment (Dkt. No. 210).

So ORDERED and SIGNED this 24th day of October, 2017.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE