No. 16-1054

United States Court of Appeals
For the Federal Circuit

BLUE SPIKE, LLC

Plaintiff-Appellant,

v.

GOOGLE, INC.

Defendant-Appellee,

Appeal from The United States District Court
For The Northern District of California
In Case No. 14-CV-1650, Judge Yvonne Gonzalez Rogers

CORRECTED REPLY BRIEF FOR PLAINTIFF-APPELLANT

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CERTIFICATE OF INTEREST

Counsel for plaintiff-appellant hereby certifies the following:

1. The full name of every party represented by me is:

Blue Spike, LLC

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

The real parties in interest are named in the caption.

3. All parent corporations and any publicly held companies that own 10 percent of more of the stock of the party or amicus curiae represented by me are:

No parent corporations or publicly held companies own 10 percent or more of the stock of the party represented by Garteiser Honea, nor does Garteiser Honea represent any amicus curiae.

4. The name of all law firms and the partners or associates that appeared for the party or amicus now represented by me in the trial court or agency or are appearing in this Court are:

Randall T. Garteiser
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ABBREVIATIONS

'472 patent	U.S. Patent No. 7,346,472
'700 patent	U.S. Patent No. 7,600,700
'494 patent	U.S. Patent No. 7,949,494
'175 patent	U.S. Patent No. 8,214,175
'728 patent	U.S. Patent No. 8,712,728
Patents-in-Suit	U.S. Patent Nos. 7,346,472; 7,600,700; 7,949,494; 8,214,175; and 8,712,728
Appx___	Page in Appendix
Appx___(x:yy-zz)	Page in Appendix citing patent at column x, lines yy-zz
Signal Abstract	The "abstract" claim limitation; as distinguishable from "abstract" in the § 101 eligibility context.
Blue Spike	Plaintiff-Appellant Blue Spike, LLC
Google	Defendant-Appellee Google Inc.
Br. ___	Brief
Asserted Claims	Collectively, the patent claims at issue in this appeal: claims 1, 2, 3, 4, 8 and 11 of the '472 patent; claims 1, 10, 11, 12, 18, 21, 27, 40 and 51 of the '700 patent; claims 11, 15, 17 and 29 of the '494 patent; claims 1, 8, 11, 12, 16 and 17 of the '175 patent; and claims 1, 4, 5, 16, 25, 26 and 30 of the '728 patent

INTRODUCTION

Google's argument in this case is a claim about enablement and novelty masquerading as an argument about patentable subject matter. This is evident from Google's appellate brief, which repeatedly asserts that Blue Spike's patents attempt to monopolize a concept without explaining how the concept actually works. And the district court was plainly swayed by Google's allegations, using § 101's patentability analysis to conduct an informal analysis of concerns that belong under § 112. This was error, because Google's Rule 12(c) motion for judgment on the pleadings afforded Blue Spike no opportunity to present factual evidence concerning its invention necessary to resolving any issues under § 112.

The district court's concerns about enablement infected its entire analysis of patentability. The court's conviction that Blue Spike had not specified an actual invention led the court to characterize the claims of the patents in suit at the highest possible level of generality. Disregarding § 282 of the Patent Act's presumption of validity, the district court construed the patents to destroy them, not save them, concluding that they claimed all methods of "comparing one thing to another" and preempted even basic human comparisons "undertaken from time immemorial." (Appx0004.)

Likewise, the absence of an actual invention is critical to the district court's and Google's contention that Blue Spike's patents simply take an abstract idea—comparison—and implement it on a computer. Although both Google and the district court occasionally suggest that one simply cannot obtain a patent on automating a human process, the more precise point—which Blue Spike accepts—is that one cannot patent the *idea* of automating such processes. But one *can* patent an invention that actually implements that process on a machine—for example, a working driverless car. Google's argument that the patents-in-suit lack an inventive concept thus makes sense only in the context of the allegation—which belongs under § 112—that Blue Spike has not actually come up with a workable approach to digital comparisons using a signal abstract. That allegation is incorrect—as the Eastern District of Texas court determined when it denied a motion for summary judgment under § 112 on the same patents-in-suit (Appx2034)—and Blue Spike is entitled to a remand to establish that fact.

I. THE DISTRICT COURT FAILED TO CONSTRUE BLUE SPIKE'S PATENTS IN SUCH A MANNER AS TO PRESERVE THEIR VALIDITY.

We begin with the last argument in Google's brief, which is to dismiss as irrelevant Section 282 of the Patent Act's command that "[a] patent shall be presumed valid" (35 U.S.C. § 282) because it does not "trump" § 101's

requirement of patentable subject matter. (Google Br. at 59.) This argument flatly misunderstands the role of interpretive presumptions in the law. Section 282 must be applied consistently with the Patent Act's substantive requirements, but it guides interpretation of those requirements. The eligibility requirement of § 101 is hardly self-applying, and § 282 reflects Congress's intention that it be applied generously toward patent holders. Blue Spike's argument is not that § 282 overrides the *Alice/Mayo* test, but rather that the pro-validity presumption should guide that test's application here.

This Court has interpreted § 282 to require the same generosity toward interpreting the patents themselves, holding that "[c]laims should be so construed, if possible, as to sustain their validity." *Rhine v. Casio, Inc.*, 183 F.3d 1342, 1345 (Fed. Cir. 1999). Neither the district court nor Google has heeded that command here. Rather, the district court interpreted Blue Spike's patents so broadly as to render them absurd, asserting that the patents claimed a monopoly on "comparing one thing to another." (Appx0004.) And Google's brief on appeal likewise not only endorses this reading but, at every turn, seeks to expand the sweep of the patents' claims

so as to render them invalid and ridiculous.[1] The presumption of validity bars this approach, however. Patents are to be construed as reasonable and limited unless their language simply forecloses that interpretation. On the sympathetic reading that § 282 requires, Blue Spike's patents claim patentable subject matter.

Blue Spike's opening brief identified three particular ways in which the district court erred in determining that Blue Spike's patents were directed toward an abstract idea. First, it focused on the problem that the invention set out to solve (e.g., comparing digital signals), not the approach claimed to address that problem (relying on a signal abstract). Google insists this Court's cases approach the characterization in the same way, but in those cases the patents did not claim a particular approach to the problem; rather, they simply claimed a generic solution. *See Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (holding the patent's claim on "maintaining the state" was abstract because it was "dissociated

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[1] *See, e.g.*, Google Br. at 20 (asserting that Blue Spike's patents "seek to claim the same real-world comparisons that humans make every day when identifying, comparing and locating content (*e.g.*, songs, images, videos, text) and preempt every possible use or application of these straight-forward comparisons on a computer"); *id.* at 51 (asserting that Blue Spike's claims cover "everything other than an entire-work-to-entire-work comparison").

from any method by which maintaining the state is accomplished"); *Vehicle Intelligence and Safety LLC v. Mercedes-Benz USA, LLC*, 2015-1411, 2015 WL 9461707, at *2 (Fed. Cir. Dec. 28, 2015) (finding the claims abstract because they fail to "explain how to perform either screening or testing for any impairment, specify how to program the 'expert system' to perform screening or testing, or explain the nature of control to be exercised on the vehicle in response to the test results"). That is not the case here, as Blue Spike's patents substitute a Signal Abstract for the approaches that dominate the prior art, such as comparing signals in their entirety or relying on digital watermarking.

The second problem was the Northern District of California's approach of narrowing patent claims to their "gist"—here, comparing one thing to another. Blue Spike submits that this approach contradicts this Court's precedents by generalizing away legitimate inventive concepts. (*See* Opening Br. at 24, n.6.) Google's only answer is to assert that the various Northern District cases cite the appropriate precedents, but that hardly means that these cases apply those precedents directly. In any event, the proof is in

the pudding: Here, the district court's gist generalized Blue Spike's patents to the absurd claim of any method of comparing one thing to another.[2]

Finally, Blue Spike argued that the district court's patentability analysis was sufficiently dependent on debatable constructions of the patents' claims that it was inappropriate to resolve patentability prior to claim construction. Google answers that the district court had before it constructions of the claims from the Eastern District of Texas, but that is hardly the same thing as giving the parties to this case a hearing on claim construction.

II. AUTOMATING A TASK PERFORMABLE BY HUMANS IS NOT INHERENTLY UNPATENTABLE.

Google presents two principal arguments in this appeal. The first is that Blue Spike's patents simply take something that humans do—compare one thing to another—and claim a monopoly on performing that task using a generic computer. (*E.g.* Google Br. at 29) (arguing that "comparing signals using human-observable characteristics of the signals" is inherently abstract because the machine is merely performing "a process 'long undertaken within the human mind'.") The problem with this argument is that, standing

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[2] Google glosses over Blue Spike's "gist" argument, instead dismissing these cogent examples as having "no substance." (Google Br. at 31.)

alone, it risks foreclosing any patent protection for innovation in automating human tasks. Certainly one may not patent the very idea of automating a particular task. By the same token, however, patent protection for particular methods of automating particular tasks—e.g., driving cars, reviewing legal documents, preparing the perfect café latte—is at the heart of contemporary innovation. Google's first argument thus makes little sense without its second claim, which is that Blue Spike has not actually invented a particular method for creating Signal Abstracts and employing them to compare digital signals. Google admits as much, recognizing that "had the patentee truly invented and claimed an actual process by which to generate an 'abstract . . . using perceptual qualities,' this case may have been different." (Google Br. at 32.)

Google's argument that Blue Spike's patents do not claim patentable subject matter thus depends on its further claim that the claims do not describe an actual invention. Google says that "[t]he specification and Asserted Claims refer to the 'abstract' in aspirational terms only—identifying *what it should do* . . . but *not how* to do it." (Google Br. at 6) (emphasis in original). No one disputes, for example, that while one could not patent the idea of a self-driving car, one certainly *could* patent a working apparatus for implementing that idea. This is critical, because it means that

at bottom, Google's claims have to do not with patentability of the subject matter, but rather with the novelty and enablement of Blue Spike's invention. And those issues were not properly before the district court in this case.

A. The Key Distinction Is Between Patenting the Idea of Automating a Task *Per Se* and Patenting a Particular Approach to Automating that Task.

This Court and the Supreme Court have been appropriately hesitant to uphold patents that simply claim the computerized application of familiar ideas and processes. For example, *DDR Holdings, LLC v. Hotels.com, LLP.*, 773 F.3d 1245 (Fed. Cir. 2014) referred to a number of cases in which patents were found ineligible because they merely claimed abstract ideas generically performed on a computer.[3] By contrast, the claims in *DDR*

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[3] For example, *Ultramercial, Inc. v. Hulu, LLC,* 772 F.3d 709, 715–16 (Fed.Cir.2014) "merely recited the abstract idea of using advertising as a currency as applied to the particular technological environment of the Internet"; *buySAFE, Inc. v. Google, Inc.,* 765 F.3d 1350, 1355 (Fed.Cir.2014) "recited no more than using a computer to send and receive information over a network in order to implement the abstract idea of creating a 'transaction performance guaranty'; *Accenture Global Servs., GmbH v. Guidewire Software, Inc.,* 728 F.3d 1336, 1344–45 (Fed.Cir.2013), "merely recited 'generalized software components arranged to implement an abstract concept [of generating insurance-policy-related tasks based on rules to be completed upon the occurrence of an event] on a computer'"; and *Bancorp Servs., L.L.C. v. Sun Life Assur. Co. of Canada (U.S.),* 687 F.3d 1266, 1278 (Fed.Cir.2012) "recited no more than the use of a computer

Holdings were *not* abstract because they disclosed an invention that incorporates, not merely mentions, digital technology. *Id.* Specifically, the claims in *DDR Holdings* disclose a technological improvement that "overrides the routine and conventional" computer technology—a website hyperlink. Similarly, the patents-in-suit do not take an abstract idea and generically say "do this on a computer" (*Contra* Google Br. at 30); rather, they describe how digital signals may be transformed into data-reduced, non-invertible representations that retain perceptual characteristics of that digital signal, and how those representations may be used to improve upon existing digital comparison techniques. The patents-in-suit do not seek to patent the mere idea of comparing digital signals; they disclose a particular method of accomplishing those comparisons.

This particular approach disclosed in the patents-in-suit adds to one of the most significant fields of contemporary innovation—the automation of functions traditionally performed by humans. If no invention that duplicated human behavior on a computer were patentable, then driverless cars,

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'employed only for its most basic function, the performance of repetitive calculations', to implement the abstract idea of managing a stable-value protected life insurance policy." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d at 1256.

predictive coding processes that duplicate human lawyers' review of discovery documents, and a variety of other automated innovations would be left without protection. Blue Spike submits that the balance struck in the decisions of this Court and the Supreme Court is to forbid patenting the idea of automation *per se*, but to permit patenting particular approaches to automating human tasks. One cannot take out a patent that claims the concept of driving a car, as implemented on a generic computer. But one *can* patent particular systems for executing the idea of a driverless car. Judging from Google's driverless-car patent, Google must agree. (*See, e.g.* Google's U.S. Patent 8,7078,349.)

What cannot matter, however, is simply whether a patent claims a function that duplicates human behavior. Throughout its brief, Google emphasizes that the Signal Abstract is fashioned from human-perceptible characteristics of the signal.[4] As the driverless car and predictive coding

[4] This is not at all the same thing as saying that the process of abstracting and comparison claimed by Blue Spike duplicates the way human beings actually hear. That is an interesting question that would require *evidence* not available on a Rule 12(c) motion to actually evaluate. But in any event, it is unclear why that would render the invention unpatentable. Surely artificial organ implants that duplicate the functioning of human organs as nearly as possible are patentable. One could not patent that functioning, of course; but one could surely patent a particular method for getting an artificial construct to perform in that way.

examples demonstrate, inventions that simply duplicate what a human could also do may well be patentable, as long as they do not seek to patent the generic idea of automating that function. *See Research Corp. Techs., Inc. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010) (finding "inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act"). As Blue Spike argued in its opening brief, computerized implementation of human capabilities may well yield power and efficiency advantages over human performance of the same task. (Opening Br. at 37-38.) But even this should not be necessary for patentability. Surely a driverless car would be a patentable invention, even if it drove no better than the average driver. And while robots that autonomously vacuum one's home almost surely do a poorer job than would a human, the advantage is simply that the human does not have to do it. (*See* autonomous vacuum patents, *e.g.*, U.S. Patents 7,769,490; 6,883,201; 5,095,577; and 7,389,156.)

B. Prior Art Is Relevant and Helpful in Determining Where Unpatentable Abstract Concepts and Natural Laws End and Patentable Inventive Concepts Begin.

A particularly relevant clue to whether a patent teaches a patentable approach to automating a function is whether it resolves an engineering

problem in the prior art. Google argues that prior art is simply not relevant to patentability, (Google Br. at 35-36), but the Supreme Court acknowledged its relevance in *Alice*. Surveying its past precedents involving computer applications of well-known processes and mathematical equations, the Court distinguished between patents that simply take established principles and apply them in a generic computerized environment and those that "improved an existing technological process." *See Alice Corp. Pty. Ltd. v. CLS Bank Intern.*, 134 S. Ct. 2347, 2357-58 (2014) (comparing *Mayo* and *Flook* with *Diehr*).

The *Alice* Court's approach makes good sense. The central task here is to separate out the aspects of the invention that are appropriately viewed as common property—e.g., abstract ideas and scientific concepts—from those aspects that represent innovation by the patentee. As discussed in Blue Spike's opening brief, the prior art generally relied either upon digital watermarking, which provided inadequate security against copying because the watermark could be removed, or comparing entire signals, which was prohibitively inefficient. The Signal Abstract represents a new approach that avoids these difficulties, therefore making an innovative contribution. Critically, the district court's highly-general characterization of Blue Spike's

patents would cover all three of these approaches, thereby losing track of the distinct claims that motivate Blue Spike's invention.

C. Both the District Court and Google Are, at Base, Conflating Patentability with Novelty and Enablement.

Google basically concedes the analysis above, acknowledging that "had the patentee truly invented and claimed an actual process by which to generate an 'abstract . . . using perceptual qualities,' this case may have been different." (Google Br. at 32.) Blue Spike submits that Google's real objection, which the district court seems to have accepted, was that Blue Spike has *not* "invented and claimed an actual process by which to generate an abstract." *Id.* That objection is groundless. But more importantly for present purposes, it has nothing to do with whether such an invention would be patentable. Both Google's argument and the district court's decision conflated patentability with novelty and enablement, and this was reversible error.

Even on appeal, Google's brief makes crystal clear that its real objection is that Blue Spike has no actual invention.[5] For example, Google

[5] *See also* Google Br. at 26 (asserting that "[t]he Asserted Claims and specification assert ownership of the bare-bones idea of an 'abstract,' setting forth only its aspirational function"); *id*. at 58 (asserting that the patents'

argues "[t]he specification and Asserted Claims refer to the 'abstract' in aspirational terms only – identifying what it should do (e.g., an abstract should retain what is 'humanly-perceptible' so that it 'successfully mimics human perception') but not how to do it." (Google Br. at 6.) Again, Google insists that "[a]part from these aspirational goals of what the 'abstract' should do and how it might be used, the specification contains no technical detail or instruction of how to go about creating such an 'abstract.' There is no drawing, no figure, no schematic and no algorithm. . . .The specification describes the "abstract" only in terms of its hoped-for function. . . ." (*Id.* at 13.) "Fundamentally," Google concludes, "the specification's description of an "abstract" (i.e., a reduced version of the signal that retains humanly-perceptible qualities of the underlying signal) is nothing more than a broad, open-ended theoretical concept, waiting for future innovation and for someone else to figure out how to implement it." (*Id.* at 14.)

These are serious charges, but they do not go to patentability. The articulated concerns go to whether Blue Spike's specification adequately enables the invention and, perhaps, whether the claims contribute anything novel to the prior art. They are properly assessed not under § 101 of the

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"prose algorithm" "certainly is not a detailed algorithm teaching the specifics of *how* to create the claimed 'abstract'") (emphasis in original).

Patent Act, but under § 112. And as we consider in Section III, there are good reasons for keeping those two inquiries separate, especially at the current stage of the proceedings.

D. The Patents-in-Suit Provide a Detailed Algorithm that Instructs One of Ordinary Skill How to Implement the Inventions.

As noted above, Blue Spike does not believe Google's § 112 arguments properly raised in the context of a § 101 inquiry. Moreover, the Eastern District of Texas already considered arguments that parallel Google's and denied a motion for summary judgment on § 112. (Appx2034) (finding that the patents-in-suit contain a prose algorithm). Even so, because the existence of an algorithm figures so prominently in Google's argument, Blue Spike will more fully highlight the algorithm and related instructions here.

Prior to the patents-in-suit, solutions for comparing and identifying digital signals were not optimal, often times requiring excessive computational overhead, storage capacity, prior access to and manipulation of digital signals, and so on. For example, digital watermarks have proved relatively effective in signal identification but require embedding a signal in each digital to be identified. This requirement is not optimal when digital signals under analysis have not yet been "tagged" with a digital watermark.

Another example is a bit-by-bit comparison which is limited to exact identification and require significant computational resources.[6]

The patents-in-suit addressed these challenges in the digital world by teaching how signal abstracts—data-reduced, non-invertible representations of a digital signal—could be produced to improve matching and identification. They did not just speed up the process or reduce overhead. The patents-in-suit teach how identification and comparison can take place on a machine in a way that could not be achieved before. They "work" where prior art failed.

The patents-in-suit accomplish this feat by identifying perceptible qualities in a digital signal, generating representations that identify these perceptible signals without the excess overhead of an exact duplication. This means the representation is non-invertible—you can't use it to create the original. Because the signal is non-invertible, not all data is retained in the

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[6] Google criticizes Blue Spike's mention of the bit-by-bit analysis as "essentially arguing that everything other than an entire-work-to-entire-work comparison *is* covered by the Asserted Claims." (Google Br. at 51) (emphasis original). This is grossly inaccurate. For one, Blue Spike provided this example as merely "[o]ne approach" to signal comparisons. (*See* Blue Spike Br. at 41.) Also, bit-by-bit analysis does not require analyzing an entire work. Discrete portions of a work can still be analyzed on a bit-by-bit basis.

translation, but the Signal Abstract retains the key elements needed to perform identification and matching. How the invention does this is contained in the algorithm described below.

1. First algorithm component: a reference database containing information about digital signals that may be monitored.

The patent specification describes five key components to the algorithm. The first component is a reference database containing information about digital signals that may be monitored. The database may contain the original works or pre-processed versions of those works, such as a digital abstract. Specifically, the algorithm's first component is described as follows:

> The first element is the reference database, which contains information about a plurality of potential signals that will be monitored. In one form, the reference database would contain digital copies of original works of art as they are recorded by the various artists, for example, contain digital copies of all songs that will be played by a particular radio station. In another form, the reference database would contain not perfect digital copies of original works of art, but digital copies of abstracted works of art, for example, contain digital copies of all songs that have been preprocessed such that the copies represent the perceptual characteristics of the original songs. In another form, the reference database would contain digital copies of processed data files, which files represent works of art that have been preprocessed in such a fashion as to identify those perceptual differences that can differentiate one version of a work of art from another version of the same work of art, such as two or more versions of the same song, but by different artists. These examples have obvious application to visually communicated works such as images, trademarks or photographs, and video as well.

'175 Patent, Col. 8:14-33.

2. Second algorithm component: an object locator which is able to segment a portion of a signal.

The second component of the algorithm is the object locator "which is able to segment a portion of a signal being monitored for analysis." '175 Patent, Col. 8:34-35. The segments created by the object locator are referred to as "objects." These objects are then manipulated by other components of the algorithm. (Further description of how the object locator may be constructed is explained in subsection 6.)

> The second element is the object locator, which is able to segment a portion of a signal being monitored for analysis (i.e., the "monitored signal"). The segmented portion is also referred to as an "object." As such, the signal being monitored may be thought of comprising a set of objects. A song recording, for example, can be thought of as having a multitude of objects. The objects need not be of uniform length, size, or content, but merely be a sample of the signal being monitored. Visually communicated informational signals have related objects; color and size are examples.

'175 Patent, Col. 8:34-43.

3. Third algorithm component: a feature selector which is able to identify perceptual features that uniquely describe an object.

The third element is a feature selector. This element is "able to analyze a selected object and identify perceptual features of the object that can be used to uniquely describe the selected object." '175 Patent, Col. 8:44-

46. These perceptual qualities are helpful to describe the object as well as differentiate it from other objects. (Further description of how the feature selector may be constructed is explained in subsection 6.)

> The third element is the feature selector, which is able to analyze a selected object and identify perceptual features of the object that can be used to uniquely describe the selected object. Ideally, the feature selector can identify all, or nearly all, of the perceptual qualities of the object that differentiate it from a similarly selected object of other signals. Simply, a feature selector has a direct relationship with the perceptibility of features commonly observed. Counterfeiting is an activity which specifically seeks out features to misrepresent the authenticity of any given object. Highly granular, and arguably successful, counterfeiting is typically sought for objects that are easily recognizable and valuable, for example, currency, stamps, and trademarked or copyrighted works and objects that have value to a body politic.

'175 Patent, Col. 8:44-58.

4. Fourth algorithm component: a comparing device which is able to identify perceptual features that uniquely describe an object.

The fourth component is a "comparing device which is able to compare the selected object using the features selected by the feature selector to the plurality of signals in the reference database to identify which of the signals matches the monitored signal." '175 Patent, Col. 8:58-62.

> The fourth element is the comparing device which is able to compare the selected object using the features selected by the feature selector to the plurality of signals in the process the signal information stored in the database using input from the feature selector and then compare the selected object to the processed signal information. Alter-

> reference database to identify which of the signals matches the monitored signal. Depending upon how the information of the plurality of signals is stored in the reference database and depending upon the available computational capacity (e.g., speed and efficiency), the exact nature of the comparison will vary. For example, the comparing device may compare the selected object directly to the signal information stored in the database. Alternatively, the comparing device may need to
>
> natively, the comparing device may need to process the selected object using input from the feature selector and then compare the processed selected object to the signal information. Alternatively, the comparing device may need to process the signal information stored in the database using input from the feature selector, process the selected object using input from the feature selector, and then compare the processed selected object to the processed signal information.

'175 Patent, Col. 8:58-9:12.

5. Fifth algorithm component: a recorder which records information.

Finally, the fifth element "is the recorder which records information about the number of times a given signal is analyzed and detected."

> The fifth element is the recorder which records information about the number of times a given signal is analyzed and detected. The recorder may comprise a database which keeps track of the number of times a song,
>
> image, or a movie has been played, or may generate a serial output which can be subsequently processed to determine the total number of times various signals have been detected.

'175 Patent, Col. 9:13-19.

6. Additional information supplementing the prose algorithm.

The specification builds on the framework of the prose algorithm by

providing detailed examples of technology that can be used to carry out portions of the algorithm, particularly components 2 through 4. Certainly the patents-in-suit contain more implementation specifics than are listed here.

First, using RMS (root mean square) can assist in selecting relevant features of a digital signal by "determining the distance between data based on mathematically determinable Euclidean distance between the beginning and end data points (bits)." '175 Patent, 10:60-62.

> 1) RMS (root mean square). For example, a RMS function may be used to assist in determining the distance between data based on mathematically determinable Euclidean distance between the beginning and end data points (bits) of a particular signal carrier.

'175 Patent, Col. 10:59-63.

Second, frequency weighted RMS can further assist in selecting relevant features.

> 2) Frequency weighted RMS. For example, different weights may be applied to different frequency components of the carrier signal before using RMS. This selective weighting can assist in further distinguishing the distance between beginning and end points of the signal carrier (at a given point in time, described as bandwidth, or the number of total bits that can be transmitted per second) and may be considered to be the mathematical equivalent of passing a carrier signal difference through a data filter and figuring the average power in the output carrier.

'175 Patent, Col. 10:64-11:6.

Third, the NULL set can be utilized "where a collision of data

occurs." '175 Patent, Col. 11:12. If two abstracts are identical but represent different digital signals, those abstracts will "collide" or inaccurately identify matches. The patent discusses the NULL set in detail and proposes recalibration of the abstract generation routines and recalibration of the database in such instances. *See, e.g.,* '175 Patent, Col. 11:20-22.

> 3) Absolute error criteria, including particularly the NULL set (described above) The NULL may be utilized in two significant cases: First, in instances where the recognized signal appears to be an identified object 10 which is inaccurately attributed or identified to an object not handled by the database of objects; and second, where a collision of data occurs. For instance, if an artist releases a second performance of a previously recorded song, and the two performances are so 15 similar that their differences are almost imperceptible, then the previously selected criteria may not be able to differentiate the two recordings. Hence, the database must be "recalibrated" to be able to differentiate these two versions. Similarly, ifthe system identifies not one, 20 but two or more, matches for a particular search, then the database may need "recalibration" to further differentiate the two objects stored in the database.

'175 Patent, Col. 11:7-22.

Fourth, the patent teaches how cognitive identification may be employed, such as a "spectral transform or its equivalent of the carrier signal." '175 Patent, Col. 11:25-27.

> 4) Cognitive Identification. For example, the present invention may use an experience-based analysis within a recognition engine. Once such analysis may involve math- sequent use of the identification means can be used to create a history as to how often a particular signal is misidentified, which history can then be used to optimize

ematically determining a spectral transform or its equivalent of the carrier signal. A spectral transform enables signal processing and should maintain, for certain applications, some cognitive or perceptual relationship with the original analog waveform. As a novel feature to the present invention, additional classes may be subject to humanly-perceptible observation. For instance, an experience-based criteria which relates particularly to the envisioned or perceived accuracy of the data information object as it is used or applied in a particular market, product, or implementation. This may include a short 3 second segment of a commercially available and recognizable song which is used for commercials to enable recognition of the good or service being marketed. The complete song is marketed as a separately valued object from the use of a discrete segment of the song (that may be used for promotion or marketing-for the complete song or for an entirely different good or service). To the extent that an owner of the song in question is able to further enable value through the licensing or agreement for use of a segment of the original signal, cognitive identification is a form of filtering to enable differentiations between different and intended uses of the same or subset of the same signal (object). The implementation relating identification of that signal in the future. The difference between use of an excerpt of the song to promote a separate and distinct good or service and use of the excerpt to promote recognition of the song itself (for example, by the artist to sell copies of the song) relates informationally to a decision based on recognized and approved use of the song. Both the song and applications of the song in its entirety or as a subset are typically based on agreement by the creator 65 and the sender who seeks to utilize the work. Trust in the means for identification, which can be weighted in the present invention (for example, by adjusting bit-addressable information), is an important factor in adjusting the monitoring or recognition features of the object or carrier signal, and by using any misidentification information, (including any experience-based or heuristic information), additional features of the monitored signal can be used to improve the performance of the monitoring system envisioned herein. The issue of central concern with cognitive identification is a greater understanding of the parameters by which any given object is to be analyzed. To the extent that a creator chooses varying and separate application of his object, those applications having a cognitive difference in a signal recognition sense (e.g., the whole or an excerpt), the system con-

> specifically, as disclosed herein, to the predetermined identification or recognition means and/or any specified relationship with sub-templated herein includes rules for governing the application of bit-addressable information to increase the accuracy of the database.

'175 Patent, Col. 11:23-12:11.

Finally, under certain circumstances it may be appropriate to catalogue specific transmission fidelity, such as differing bandwidths.

> 5) Finally, the predetermined parameters that are associated with a discrete case for any given object will have a significant impact upon the ability to accurately process and identify the signals. For example, if a song is transmitted over a FM carrier, then one skilled in the art will appreciate that the FM signal has a predetermined bandwidth which is different from the bandwidth of the original recording, and different even from song when played on an AM carrier, and different yet from a song played using an 8-bit Internet broadcast. Recognition of these differences, however, will permit the selection of an identification means which can be optimized for monitoring a FM broadcasted signal. In other words, the discreteness intended by the sender is limited and directed by the fidelity of the transmission means. Objects may be cataloged and assessing with the understanding that all monitoring will occur using a specific transmission fidelity. For example, a database may be optimized with the understanding that only AM broadcast signals will be monitored. For maximum efficiency, different data bases may be created for different transmission channels, e.g., AM broadcasts, FM broadcasts, Internet broadcasts, etc.

'175 Patent, Col. 12:12-32.

Google and the district court glossed over or outright denied the existence of this detailed instruction. Conversely, the E.D. Texas court recognized the detailed prose algorithm contained in the specification of the patents-in-suit. (Appx2034.) To the extent this Court's determination rests

on the presence of an algorithm, Blue Spike urges the Court to recognize the detailed algorithm and additional guidance contained in the patents-in-suit.

III. CONFLATING PATENTABILITY WITH NOVELTY AND ENABLEMENT IS PARTICULARLY INAPPROPRIATE IN THE CONTEXT OF A RULE 12(C) MOTION FOR JUDGMENT ON THE PLEADINGS.

Blue Spike does not, of course, concede that it has no invention or that its patent specifications fail to enable that invention. A proper hearing on these issues would give Blue Spike an opportunity to rebut these allegations. But as argued in the opening brief, novelty and enablement are fact-intensive issues inappropriate for resolution on a Rule 12(c) motion for judgment on the pleadings. Google's only answer is to insist that inadequate enablement "is also relevant to the § 101 analysis." (Google Br. at 56.) The contention seems to be that an inadequate specification broadens the patent claims' preemptive scope because there is otherwise no limit on what a Signal Abstract may comprise. (*See id.*) If that were the argument, however, then much of Google's broad rhetoric about Blue Spike's lack of an invention would be beside the point. And as Blue Spike's opening argument demonstrates, concerns about the preemptive scope of these patents may be met based on the claims as they stand. (*See* Opening Brief at 40-42.)

Moreover, Google's argument is nonresponsive to the significant authority that insists on keeping these inquiries distinct. (*See* Opening Br. at

54-58.)[7] Google's argument is simply a cover for conducting an informal adjudication of enablement under the guise of § 101, without the full development of the facts and law that a proceeding under § 112 would have afforded. Google's aspersions about novelty, obviousness, and enablement raise important factual issues that simply cannot be resolved on a Rule 12(c) motion for judgment on the pleadings. The district court's analysis critically rested on such judgments, and that was reversible error.

CONCLUSION

For the foregoing reasons, the district court erred by holding the patents-in-suit ineligible subject to § 101. Blue Spike respectfully asks the Court to reverse and remand.

Dated: May 5, 2016

Respectfully submitted,

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[7] Google's argument that Blue Spike's specification fails to narrow the preemptive scope of the patent also highlights the inappropriateness of resolving this dispute without a hearing on claim construction.

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CERTIFICATE OF SERVICE

In accordance with Fed. R. App. P. 25 and Fed. Cir. R. 25, I certify that on this day I served the foregoing via the Court's CM/ECF on the principal attorneys for each party.

Dated: May 5, 2016

/s/ Randall T. Garteiser
Randall T. Garteiser

CERTIFICATE OF COMPLIANCE

Pursuant to Fed. R. App. P. 32(a)(7)(C), I hereby certify that the body of this brief, beginning with the Abbreviations on page 4, and ending with the last line of the conclusion on page 33, including, headings, footnotes, and quotations, contains 6857 words, in compliance with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B)(i).

Dated: May 5, 2016

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