2015 WL 7597413
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United States District Court,
D. Delaware.

Collarity, Inc., Plaintiff,
v.
Google Inc., Defendant.

C. A. No. 11-1103-MPT | Signed November 25, 2015

MEMORANDUM

Mary Pat Thynge, UNITED STATES MAGISTRATE JUDGE

I. INTRODUCTION

***1** This is a patent case. On November 7, 2011, Collarity, Inc. ("Collarity") sued Google Inc. ("Google") alleging infringement of U.S. Patent No. 7,756,855 ("the '855 patent").[1] The court construed six terms on May 6, 2013.[2] Currently before the court is Google's motion for summary judgment of invalidity of the asserted claims of the '855 patent under 35 U.S.C. § 101 for failure to claim patent-eligible subject matter.[3]

II. LEGAL STANDARD

A grant of summary judgment pursuant to FED. R. CIV. P. 56 is appropriate if materials on the record, such a deposition, documents, electronically stored information, admissions, interrogatory answers, affidavits, and other like evidence show that there is no genuine issue as to any material fact, and the moving party is entitled to judgment as a matter of law.[4] This standard is applicable to all types of cases, including patent cases.[5] The movant bears the burden of establishing the lack of a genuinely disputed material fact by demonstrating "that there is an absence of evidence to support the nonmoving party's case."[6] "Facts that could alter the outcome are 'material,' and disputes are 'genuine' if evidence exists from which a rational person could conclude that the position of the person with the burden of proof on the disputed issue is correct."[7] "Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no genuine issue for trial."[8]

Google argues it is entitled to summary judgment that the asserted claims of the '855 patent are invalid under 35 U.S.C. § 101. That section provides: "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." There are three exceptions to Section 101's broad patent-eligibility principles: "laws of nature, natural phenomena, and abstract ideas are not patentable."[9] "Whether a claim is drawn to patent-eligible subject matter under 35 U.S.C. § 101 is a threshold inquiry to be determined as a matter of law in establishing the validity of the patent."[10]

In *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289 (2011), the Supreme Court set out a two-step "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts."[11] First, the court must determine if the claims at issue are directed to a patent-ineligible concept, such as an abstract idea.[12] If so, the court examines the "elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a

patent-eligible application."[13] The second step of this analysis has been described as a search for an " 'inventive concept'—*i.e.* an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."[14] "[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention."[15] "Stating an abstract idea while adding the words 'apply it' is not enough for patent eligibility."[16] "Given the ubiquity of computers, wholly generic implementation is not generally the sort of 'additional featur[e]' that provides any practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."[17]

***2** The question of whether a finding under Section 101 requires meeting the clear and convincing standard or a preponderance of the evidence standard has never been answered by either the Supreme Court or the Federal Circuit.[18] In the absence of higher court guidance "[f]requently, decisions from this District have assessed § 101 challenges by applying a burden of clear and convincing evidence."[19] The court does not need to resolve this issue because, as explained below, the asserted claims are invalid under either standard.

III. BACKGROUND

Google argues the asserted claims are directed to an abstract idea. It contends one can practice those claims using only the human mind and with pen and paper.

Google further observes the asserted claims lack the requisite "inventive concept." It contends all claim elements are "purely functional and generic" and the claimed "association graph" is not an inventive concept. It maintains the dependent claims do not change the analysis. Google also argues the '855 patent inappropriately preempts innovation and the claimed solution does not address a problem "specifically arising in the realm of computer networks."

Collarity states the asserted claims are patent-eligible under step one of the *Alice* test because they are materially tethered to tangible matter and they are patent-eligible under the second step because they disclose an inventive concept. Collarity argues prior art cited by Google is irrelevant to the Section 101 analysis and fails to disclose or suggest the claimed invention. Finally, Collarity contends issuance of a patent, post-*Alice*, based on a continuation application claiming priority to the '855 patent, and having purportedly similar claims as the '855 patent, further supports the validity of the '855 patent under Section 101.

Collarity alleges Google infringes claims 1, 2-5, 8, 9, and 12-14 of the '855 patent. Claim 1 is the only asserted independent claim.

The '855 patent, titled "Search Phrase Refinement by Search Term Replacement," describes:

> A computer-implemented method ..., which includes receiving a plurality of first search queries, each of which comprises one or more first query terms. At least one association graph is constructed that includes at least a portion of the first query terms as vertices. A second search query is received from a user, which comprises a plurality of second query terms. One or more suggested replacement terms for one or more of the second query terms are identified, using the at least one association graph. The suggested replacement terms are presented to the user. Responsively to a selection of one of the suggested replacement terms by the user, the selected suggested replacement term is substituted for the corresponding one of the second query terms, to generate a refined search query. Search results are presented to the user responsively to the refined search query. Other embodiments are also described.[20]

***3** Claim 1, the only independent claim Collarity asserts, recites:

> A computer-implemented method comprising:
>
> receiving, by a search system, from a user a search query comprising keywords;
>
> using at least one association graph comprising keywords, identifying, by the search system, one or more suggested replacement keywords for one or more of the keywords of the search query;
>
> presenting the suggested replacement keywords to the user;

responsively to a selection of one of the suggested replacement keywords by the user, substituting, by the search system, the selected suggested replacement keyword for the corresponding one of the keywords of the search query, to generate a refined search query; and

presenting search results to the user responsively to the refined search query,

wherein identifying the one or more suggested replacement keywords comprises:

designating, by the search system, one or more of the keywords of the search query as anchor keywords, and the remaining keywords of the search query as non-anchor keywords; and
identifying, by the search system, the one or more suggested replacement keywords for one or more of the non-anchor keywords and not for any of the anchor keywords.[21]

In addition to independent claim 1, Collarity asserts dependent claims 2-5, 8, 9, and 12-14.

Claim 2 recites:
The method according to claim 1, wherein identifying the suggested replacement keywords for the one or more of the keywords of the search query comprises identifying the suggested replacement keywords for exactly one of the keywords of the search query.[22]

Claim 3 recites:
The method according to claim 1, wherein identifying the suggested replacement keywords for the one or more of the keywords of the search query comprises identifying at least one first suggested replacement keyword for a first one of the one or more of the keywords of the search query, and at least one second suggested replacement keyword for a second one of the one or more of the keywords of the search query.[23]

Claim 4 recites:
The method according to claim 1, wherein presenting the one or more suggested replacement keywords comprises presenting one or more candidate replacement queries, each of which includes at least one of the suggested replacement keywords and the keywords of the search query other than the keywords of the search query that respectively correspond to the at least one of the suggested replacement keywords.[24]

Claim 5 recites:
The method according to claim 1, wherein presenting the one or more suggested replacement keywords comprises presenting each of the one or more suggested replacement keywords in association with the one of the keywords of the search query that corresponds to the suggested replacement keyword.[25]

Claim 8 recites:
The method according to claim 1, wherein the at least one association graph comprises a global association graph (GAG) that represents interactions of previous search queries of a plurality of users including the user with respective search result documents presented to the users in response to the previous search queries.[26]

***4** Claim 9 recites:
The method according to claim 1, wherein identifying the one or more suggested replacement keywords for the one or more of the keywords of the search query comprises identifying synonyms of the one or more of the keywords of the search query as the one or more suggested replacement keywords.[27]

Claim 12 recites:

The method according to claim 9, wherein identifying the synonyms of the one or more of the keywords of the search query comprises:

retrieving, from a lexical database, respective measures of strength of synonymy between each of the synonyms and its synonymous keyword of the search query; and
selecting only the synonyms having the greatest measures of strength as the identified synonyms.[28]

Claim 13 recites:
The method according to claim 1, wherein designating as the anchor keywords comprises determining, by the search system, a part of speech of each of the keywords of the search query, and considering for designation as the anchor keywords only those of the keywords of the search query that are a particular part of speech.[29]

Claim 14 recites:
The method according to claim 1, wherein designating as the anchor keywords comprises designating as the anchor keywords responsively to respective association scores of each of the keywords of the search query within the at least one association graph.[30]

IV. DISCUSSION

A. Abstract Idea

The court first looks to whether the '855 patent recites an abstract idea.[31] Section 101 prohibits claiming "an abstraction–an idea, having no particular concrete or tangible form."[32] Google argues the asserted claims do just that and are invalid under Section 101.

According to Google, the '855 patent attempts to claim a basic goal of human communication and inquiry: how to improve the question being asked in order to increase the likelihood of obtaining the desired information.[33] To achieve that goal, Google contends the asserted claims merely recite a longstanding solution: the abstract idea of refining search queries (*i.e.*, questions) by switching some words used in the query but not others, thereby making them patent-ineligible.[34]

In determining which words to keep in a query, referred to in the patent as "anchor keywords," the specification provides, for instance,: "the refinement processor looks up the part of speech of each term in a lexical database, such as a dictionary or thesaurus ...."[35] "If the query includes at least one noun, the refinement processor designates one or more of the nouns as anchors. Typically, the refinement processor designates as anchors one or more nouns having the fewest number of synonyms in the lexical database, such as exactly one noun or exactly two nouns."[36] After designating the anchor keyword(s), the specification describes the option of replacing the remaining keywords in the query with synonyms.[37] Google contends this method is not a case where a novel technological solution addressed a problem unique to the Internet.[38] Rather, the claims of the '855 patent employ the same solution humans have practiced for decades and describe familiar concepts using less familiar terms such as "search queries" and "anchor keywords."[39] Google argues, however, use of those less familiar terms does not mask the abstract nature of the claimed invention.[40]

***5** Collarity argues the asserted claims are not directed to an abstract idea. It states the claims of the '855 patent are directed to improving computerized searches.[41] Traditionally, a challenge with such searches was the tension between improving search integrity that remains true to the user's intent while not compromising the pool of potentially responsive hits: adding words—synonyms or otherwise—makes a search more specific, but doing so restricts the pool of potentially responsive materials; though substituting narrower words with broader words might expand the search pool, this comes at the expense of a more targeted search.[42] Collarity maintains the '855 patent solves that traditional challenge through a unique computerized process that forces the search system to maintain an original search term as an anchor keyword while using an association graph to identify replacement words for the non-anchor keywords.[43]

Rather than claiming a well-understood abstraction merely implemented on a general purpose computer, Collarity states the invention of the '855 patent is an improvement to search computers through a process that is not a mere abstraction practiced by hand for decades, as Google alleges.[44] Collarity argues the asserted claims are patent-eligible under step one of the *Alice* test because they are materially tethered to tangible matter. It maintains the invention of the '855 patent is a process designed to function with, and improve, a computerized search, *i.e.* the process requires a specific computer—a search system—and outputs a tangible result—a new search query.[45] Collarity argues the claimed method cannot be performed by human thought alone, as Google contends.[46] It supports that contention by noting the Patent Office purportedly addressed this very issue in the 101 context during prosecution of the '855 patent.[47] The examiner initially rejected under Section 101 an independent claim Collarity avers is analogous to claim 1.[48] After the patentee amended claim 1 "to recite that a search system performs the steps of the recited method" (e.g., "receiving, by a search system"), the claims were allowed.[49] Collarity contends this confirms the asserted claims are performed by a particular computer, *i.e.* a search system, not a human, that performs the

steps of: (i) receiving the query, (ii) identifying the replacement keywords, (iii) substituting the selected replacement keyword, and (iv) designating the anchor and non-anchor keywords.[50]

The court disagrees with Collarity that the claims are limited to use on a specific computer. In construing the phrase "designating, by the search system, one or more keywords as anchor keywords and the remaining keywords as non-anchor keywords," Collarity proposed the court construe the phrase as written, and the court did so.[51] Collarity did not seek to inject its current position, that the "search system" is a particular computer that performs the asserted claims, in its proposed construction; it instead relied on the plain meaning of that term. Other than stating the method is "computer-implemented" in the non-limiting preamble, independent claim 1 contains no computer based or technological requirements.[52] As Google notes, the claim simply recites a method with certain steps, such as "receiving" a search query and "presenting search results," but imposes no tangible limitations on those steps.[53]

***6** Google also argues the phrase "search system" can describe a purely mental process; *e.g.* a college student may have a "search system" for finding his keys when he loses them in his car or apartment.[54] Google also cites a recent paper on the academic search process as using the phrase "search system" to describe "library catalogs" as well as "databases": "What do we mean by 'discovery,' as opposed to 'search'? In this paper, *traditional library information systems, such as library catalogs and databases, are referred to as search systems*."[55] Furthermore, Google states "search systems" unquestionably predate computers, pointing to a patent granted in 1967 describing a "search system" to the inventor of the Termatrex, a non-computer system for organizing and retrieving information by superimposing cards, each one representing a search term, on top of each other.[56] In 1960, the Termatrex inventor wrote that his "search system"—superimposing cards and looking for coincidence of holes in the cards—"must be very old."[57]

The court rejects Collarity's argument that a "search system" is a specific computer that performs the steps of the asserted claims. To the extent the claims are executed via a computer-implemented system, they could be executed on a general purpose computer which is inadequate to convey patent-eligibility.[58]

Google also argues the asserted claims are directed at a demonstrably abstract idea because they can purportedly be practiced using only the human mind and with pen and paper. "[A] method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101."[59]

In support of its argument that the claimed method of refining a query by replacing some words and not others has been practiced by humans for decades, Google cites a 1989 publication that advised to "think of the words a court may use" to determine legally significant synonyms.[60] For instance, that publication advised that an query including "Buick Skylark" replace that specific model with less specific synonyms like "car," "auto," or "motor vehicle."[61] Google asserts that example demonstrates how a librarian could perform the claimed method by human thought alone:

> A client comes to an attorney with a legal issue and asks the attorney for advice. Having hit his neighbor's mailbox with his car, the client asks his attorney whether he is liable for the accident.
>
> The attorney generates a search query and consults a legal research librarian: "What is the standard for negligence when a driver hits a neighbor's mailbox with his Buick Skylark?"
>
> ***7** Knowing the word "negligence" will be important to this query, but that the brand of car will not be important, the librarian suggests it will be more effective to search for "automobile" rather than "Buick Skylark."
> After the attorney agrees to the refined query using "automobile" instead of "Buick Skylark," while retaining "negligence," the librarian directs the patron to the relevant section of the library with authorities addressing "automobiles" and "negligence."[62]

The court agrees with Google that that example meets the steps of claim 1 of the '855 patent, thereby demonstrating those steps could be performed in the mind of the research librarian.[63]

Google also points to a 1974 book titled "Basic Legal Research Techniques," which described how to use Westlaw's Descriptive Word Index (a printed index used to disambiguate search queries and locate relevant information), that suggests identifying the most important words in a query by picking the "special facts about the situation which tend to distinguish it from other possible fact situations."[64] In addition to identifying the most important words in a query, the book also noted the

importance of replacing overly broad words:

> FACTS: A woman is suing to recover for injuries received when she jumped from her stalled automobile at a railroad crossing and was struck by a train which she had suddenly discovered was backing toward the automobile. There are numerous factual, or legal, words which could be entries in the Descriptive Word Index: woman, automobile, railroads, trains, torts, negligence, damages, backing, jumping, stalled, railroad crossings. *Notice that many of these words are so broad, possibly encompassing an infinite number of factual situations, that you would eliminate those as a quick means to succeed in the Descriptive Word Index.* There are two special facts about the situation which tend to distinguish it from other possible fact situations: railroad crossing and backing. Further thought would reveal that railroad crossing is broader than backing since many different types of accidents could occur at a railroad crossing which do not involve the backing of a train. *So, remember the rule that the more specific, narrower word should be checked first, you look in the Descriptive Word Index, say, for the Fifth Decennial.* Under "backing" you find the sub-entry "trains" and under "trains" you find a sub-sub-entry entitled "crossing accidents" which refers you to the key number "Railroads" # 310. Under "crossing accidents" there are further sub-sub-sub-entries such as "Contributory Negligence of—Automobile Guest, Motorist ...." each with key number references.[65]

Finally, Google maintains other materials advised to use what the '855 patent claims as "anchor" and "non-anchor" keywords to refine questions or "search queries."[66] Google cites a 1989 book, titled "The Process of Legal Research: Successful Strategies," advising legal researchers to generate a "research vocabulary" by generating synonyms for the important terms in their query and eliminating words that are "unlikely to be helpful":

> ***8** Because the vocabulary and organization of research sources differ greatly, *you will need to generate synonyms, as well as both general and specific terms*. For example, the synonyms of "automobile" include auto, car, motorcar, buggy, and jalopy. Your judgment should tell you that motorcar, buggy, and jalopy are unlikely to be helpful words here because indexes favor everyday vocabulary and legal terms when at all possible.[67]

Google concludes that, like the claimed method of generating "anchor" and "non-anchor" keywords, legal researchers have long been refining search queries by retaining some words and substituting other words.[68]

The court again agrees with Google; the asserted claims are directed to an abstract idea known outside of a computer or Internet context and could be practiced using only the human mind.

B. Inventive Concept

Having determined the asserted claims are directed to an abstract idea, the court considers step two of a Section 101 analysis. At this step "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application."[69] Collarity argues, even if deemed abstract, the asserted claims of the '855 patent nevertheless contain such "inventive concept."[70]

To the extent the '855 patent claims can be implemented on a general purpose computer, as the court has determined, claims "which merely require generic computer implementation, fail to transform [an] abstract idea into a patent-eligible invention."[71] "Simply appending conventional steps, specified at a high level of generality, [is] not *enough* to supply an inventive concept."[72] "The introduction of a computer to the claims does not alter the analysis. ..."[73] "[T]ransformation into a patent-eligible application requires more than simply sta[ing] the [abstract idea] while adding the words 'apply it.' "[74]

Collarity contends the asserted claims do not merely state an abstract idea applied to a computer. It maintains the '855 patent is patent-eligible because it claims a particular solution to a problem unique to Internet searching.[75] Collarity states the '855 patent is directed at improving the computerized searches themselves.[76] As support, Collarity points to the Federal Circuit's decision in *DDR Holding, LLC v. Hotels.com, L.P.* where the court held the plaintiff's claims valid in the face of a Section 101 challenge.[77]

There, the claimed solution provided by the patent-at-issue was "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks."[78] The court stated the asserted claims "address the problem of retaining website visitors that, if adhering to the routine, conventional functioning of Internet hyperlink protocol, would be instantly transported away from a host's website after 'clicking' on an advertisement and activating a

hyperlink."[79] To solve that problem, the patent claimed an "automatically-generated hybrid web page" that would deliver third party advertisements to websites without requiring visitors to navigate away from a host website.[80] The court determined the patent did not claim "the computer network operating in its normal, expected manner by sending the website visitor to the third-party website that appears to be connected with the clicked advertisement," thus solving a problem that "does not arise in the 'brick and mortar' context."[81]

***9** Collarity maintains the '855 patent claims a particular solution for refining user Internet search queries, purportedly a problem unique to Internet searching, where there is no ability to ask the user questions about what he or she "really" meant by their search query as a librarian could do.[82] It argues the asserted claims solve the problem of refining a search query to accurately reflect the user's intended area of interest by designating anchor and non-anchor keywords, and using an association graph to replace at least one of the non-anchor keywords, but not any of the anchor keywords.[83] As in *DDR Holdings*, Collarity contends the asserted claims "specify how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered."[84]

The court disagrees with Collarity that the '855 claims address a problem "necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks"[85] and are thus valid under *DDR Holdings*. Independent claim 1 is not rooted in computer technology; other than stating the method is "computer-implemented" in the non-limiting preamble, it has no computer requirements. An noted above, claim 1 recites a method with certain steps, such as "receiving" a search query and "presenting search results," but imposes no tangible limitations on those steps. Nor do the claims mention the "Internet" or address any problem unique to Internet searching.[86]

The concept of refining a search query is a problem humans have long dealt with, including before the advent of the Internet. The court also agrees with Google that to the extent the '855 patent addresses the problem of staying "true to the user's original intent," the '855 patent does not claim a uniquely Internet-related solution to such a problem.[87] As discussed above, librarians and other researchers have long known to improve a search query to reflect the user's intended area of interest by retaining words important to a query, *i.e.* "designating" as an anchor word, (*e.g.* "negligence"), and replacing other words that are too specific or otherwise less important, *i.e.* "designating" as a non-anchor keyword (*e.g.* "Buick Skylark"). The court concludes, therefore, nothing in claim 1 suggests an inventive concept bringing it under *DDR Holdings*.[88]

Likewise the asserted dependent claims lack an inventive concept imparting patent eligibility. Claim 2 merely limits claim 1 by restricting the identification of "suggested replacement keywords for exactly one of the keywords of the search query.[89] Claim 3 limits the identification step of claim 1 to "identifying at least one first suggested replacement keyword for a first one of the one or more of the keywords of the search query, and at least one second suggested replacement keyword for a second one of the one or more of the keywords of the search query."[90] Claim 4 limits the presenting step of claim 1 to "presenting one or more candidate replacement queries, each of which includes at least one of the suggested replacement keywords and the keywords of the search query other than the keywords of the search query that respectively correspond to the at least one of the suggested replacement keywords."[91] Claim 5 limits the presenting step of claim 1 to "presenting each of the one or more suggested replacement keywords in association with the one of the keywords of the search query that corresponds to the suggested replacement keyword."[92] Claim 9 limits the identifying step to "identifying synonyms of the one or more of the keywords of the search query as the one or more suggested replacement keywords."[93] Claim 13 limits the designating step of claim 1 to "determining, by the search system, a part of speech of each of the keywords of the search query, and considering for designation as the anchor keywords only those of the keywords of the search query that are a particular part of speech."[94]

***10** The court finds no inventive concept in any of those claims and Collarity did not suggest any. In fact, perhaps confident the court would find a sufficiently inventive concept in independent claim 1, Collarity did not specifically point to an inventive concept in any of the dependant claims when discussing patent eligibility under step two of the *Alice* test. Two dependant claims (8 and 14) were mentioned in Collarity's statement of facts, where it noted in claim 8 the association graph was a Global Association Graph and that claim 14 designates the anchor keyword based on association scores of each of the keywords.[95] Collarity does not explain how those particular requirements represent an inventive concept. The only other specific statement regarding dependent claims by Collarity is its assertion, in discussing step one of the *Alice* test, that Google did not attempt to argue claim 8 could be performed by human beings.[96]

Claim 8 specifies the "association graph" of claim 1 is "a global association graph (GAG) that represents interactions of

previous search queries of a plurality of users including the user with respective search result documents presented to the users in response to the previous search queries." Contrary to Collarity's assertion that Google ignored claim 8, when discussing the "association graph" term in its step two analysis in its opening brief, Google stated that discussion applies equally to the "global association graph" in dependent claim 8.[97] In its reply brief, Google reiterates that a librarian employs an "association graph" when she links related words in her mind and explains the librarian employs the "global" association graph of claim 8 when she links related words in her mind based on past multiple searches from past patrons.[98] The court agrees with Google this claim lacks the required inventive concept for patent eligibility.

Also not discussed by Collarity is claim 12, which limits the identification of synonyms required in claim 9 by stating "identifying the synonyms of the one or more of the keywords of the search query comprises: retrieving, from a lexical database, respective measures of strength of synonymy between each of the synonyms and its synonymous keyword of the search query; and selecting only the synonyms having the greatest measure of strength as the identified synonyms."[99] To the extent Collarity would contend the "lexical database" is somehow the inventive concept, Google notes the claim places no requirements on the structure of the database other than it measures the "strength of synonymy between each of the synonyms and its synonymous keyword," a measurement that is itself is an abstract concept.[100] Adding an abstract concept in a dependent claim is not an inventive concept creating patent eligibility.

Finally, claim 14 limits the designating step of claim 1 to "designating as the anchor keywords responsively to respective association scores of each of the keywords of the search query within the at least one association graph."[101] Other than stating this claim requires designating the anchor keyword based on association scores of each of the keywords, Collarity again fails to explain how that requirement confers inventive concept patent eligibility, thus, the court determines it does not.

In *Alice*, the Supreme Court expressed concern that granting patent eligibility to abstract ideas could impede innovation. "We have described the concern that drives this exclusionary principle as one of pre-emption. Laws of nature, natural phenomena, and abstract ideas are the basic tools of scientific and technological work."[102] "[M]onopolization of those tools through the grant of a patent might tend to impede innovation more than it would tend to promote it, thereby thwarting the primary object of the patent laws."[103] "We have repeatedly emphasized this ... concern that patent law not inhibit further discovery by improperly tying up the future use of these building blocks of human ingenuity."[104] The Court cautioned, however "we tread carefully in construing this exclusionary principal lest it swallow all of patent law."[105] "At some level, all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas."[106] The Court concluded, "in applying the § 101 exception, we must distinguish between patents that claim the buildin[g] block[s] of human ingenuity and those that integrate the building blocks into something more, thereby transform[ing] them into patent-eligible invention."[107] "The former would risk disproportionately tying up the use of the underlying ideas, and are therefore ineligible for patent protection. The later pose no comparable risk of pre-emption, and therefore remain eligible for the monopoly granted under our patent laws."[108]

***11** Collarity argues the asserted claims do not pose a preemption problem because they do not preempt all methods of computerized search technology.[109] The court has determined the asserted claims are directed to an abstract idea and do not contain the requisite inventive concept, *i.e.*, they do not "integrate the building blocks into something more, thereby transform[ing] them into patent-eligible invention." A patent "need not preempt an entire field in order to be ineligible; rather, the question is whether upholding the patents would risk *disproportionately* tying up the use of the underlying [abstract ideas or] natural laws, inhibiting their use in making of further discoveries."[110] Moreover, "although courts have framed the 'second-step' analysis in terms of preemption, there is no rule that ideas that do not preempt an entire field are *per se* patent eligible. Rather, the test as articulated by *Alice* is that there must be an inventive contribution on top of the underlying abstract idea."[111] "Without an inventive concept, [a] patent fails under *Alice*, regardless of the scope of preemption."[112] Having made that determination, the asserted claims of the '855 claims fail under *Alice*.

Finally, Collarity argues the post-*Alice* issuance of a continuation patent similar to the '855 patent confirms the validity of the asserted claims of the '855 patent.[113] On March 12, 2013, during the pendency of this lawsuit, Collarity filed a continuation patent application (resulting in the issuance of U.S. Patent No. 8,812,541 ("the '541 patent")), which claims priority to the '855 patent.[114] Collarity maintains the claims of the '541 patent are nearly identical to those of the '855 patent.[115] Collarity states the claims of the two patents were so similar it filed a terminal disclaimer to avoid a double patenting rejection based on that similarity.[116]

During prosecution of the '541 patent, Collarity disclosed to the Patent Office all prior art references that Google relied on, as well as Google's invalidity contentions, and a redacted version of its expert report.[117] Even having all of this information, the examiner granted the continuation application.[118] Collarity notes a Corrected Notice of Allowance issued for the '541 patent on July 18, 2014, after the Supreme Court's decision in *Alice*, purportedly adding further confirmation that the Patent Office believes these claims qualify for patent protection.[119]

The court disagrees with Collarity that the issuance of the '541 patent protects the '855 patent from Google's Section 101 challenge. Although Collarity states it provided the Patent Office with Google's prior art, invalidity contentions, and expert report during the prosecution of the '541 patent, it does not aver Google had raised its Section 101 contentions during that time period. It appears it had not. Also the fact that a Corrected Notice of Allowance issued post-*Alice* does not persuade the court of Collarity's position on this issue. Were that fact determinative, Collarity's position appears to be that any patent issued post-*Alice* would be inoculated from invalidity under Section 101. That is not the case. "Whether a claim is drawn to patent-eligible subject matter under 35 U.S.C. § 101 is a threshold inquiry to be determined as a matter of law [by the district court] in establishing the validity of the patent."[120]

V. CONCLUSION

***12** For the aforementioned reasons, Google's motion for summary judgment of invalidity under 35 U.S.C. § 101 (D.I. 121) is GRANTED. An appropriate order shall issue.

All Citations

Slip Copy, 2015 WL 7597413

Footnotes

1 D.I. 1.

2 D.I. 73.

3 D.I. 121.

4 FED. R. CIV. P. 56 (a) and (c).

5 *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1576-77 (Fed. Cir. 1989).

6 *Celotex Corp. v. Catrett*, 477 U.S. 317, 325 (1986).

7 *Horowitz v. Fed. Kemper Life Assurance Co.*, 57 F.3d 300, 302 n.1 (3d Cir.1995) (internal citations omitted).

8 *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (internal quotations omitted).

9 *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014).

10 *Accenture Global Servs., GMBH v. Guidewire Software, Inc.*, 800 F. Supp. 2d 613, 618-19 (D. Del. 2011) (citing *In re Bilski*, 545 F.3d 943, 950 (Fed. Cir. 2008)).

11 *Alice*, 134 S. Ct. at 2355.

12 *Id.*

13 *Id.* (citation omitted).

14 *Id.* (alteration in original) (citation and internal quotation marks omitted).

15 *Id.* at 2358.

16 *Id.* (citation and internal quotation marks omitted).

17 *Id.* (alterations in original) (citation and internal quotation marks omitted).

18 *See Intellectual Ventures I LLC v. Symantec Corp.*, C.A. Nos. 10-1067-LPS, 12-1581-LPS, 2015 WL 1843528, at *5-6 (D. Del. Apr. 22, 2015).

19 *Id.* at *6 (citing *Tenon & Grove, LLC v. Plusgrade S.E.C.*, C.A. No. 12-1118-GMS-SRF, 2015 WL 1133213, at *3 (D. Del. Mar. 11, 2015) ("[T]he court is convinced—by clear and convincing evidence—that the patents-in-suit nonetheless claim an abstraction—the idea having no particular concrete or tangible form.") (internal quotation marks omitted); *Tusix Techs., LLC v. Amazon.com, Inc.*, C.A. No. 13-1771-RGA, 2014 WL 43382446, at *6 (D. Del. Sept. 3, 2014) ("Because the evidence is clear and convincing that claim 1 of the '513 patent is directed towards an unpatentable abstract idea, it is invalid under 35 U.S.C. § 101.")); *see also Intellectual Ventures I, LLC v. Motorola Mobility LLC*, 81 F. Supp. 3d 356, 360 (D. Del. 2015) ("The standard of proof to establish the invalidity of a patent is clear and convincing evidence.") (citation and internal quotation marks omitted).

20 '855 patent, Abstract.

21 '855 patent, claim 1.

22 '855 patent, claim 2.

23 '855 patent, claim 3.

24 '855 patent, claim 4.

25 '855 patent, claim 5.

26 '855 patent, claim 8.

27 '855 patent, claim 9.

28 '855 patent, claim 12.

29 '855 patent, claim 13.

30 '855 patent, claim 14.

31 *Alice*, 134 S. Ct. at 2355.

32 *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014).

33 D.I. 122 at 1.

34 *Id.* at 5.

35 '855 patent, 40:29-31.

36 '855 patent, 40:32-37.

37 '855 patent, 41:26-48.

[38] D.I. 122 at 2.

[39] *Id.*

[40] *Id.*

[41] D.I. 126 at 1.

[42] *Id.*

[43] *Id.*

[44] *Id.* at 2.

[45] *Id.* at 8.

[46] *Id.*

[47] *Id.* at 5.

[48] *Id.*, Ex. B (Nov. 3, 2009 Office Action) at 3-4 (The examiner stated a particular claim "recites 'computer-implement[ed]' method. The phrase 'computer-implement[ed]' does not impose meaningful limits on the claimed invention because it is unclear which one or more steps of [the] claim ... are 'computer-implement[ed].' Furthermore, not a single step of [the] claim ... is tied to a particular machine.").

[49] *Id.*, Ex. C (Jan. 26, 2010 Amendment) at 2, 11; Ex. D (Notice of Allowance). The court notes claim 1 was not rejected under Section 101; it was rejected under Sections 112 and 103. *Id.*, Ex. B at 3-4. The claims rejected under Section 101 were cancelled in the January 26, 2010 Amendment. *Id.*, Ex. C at 6, 10-11. If the independent claim rejected under Section 101 was analogous to claim 1, as Collarity contends, it is perplexing that claim 1 was not also rejected under that section, as well as Sections 112 and 103.

[50] *Id.* at 8. According to Google, before its opposition to Google's motion, Collarity never asserted that a "search system" requires special programming or hardware. D.I. 129 at 3.

[51] D.I. 73 at 12-14, 19.

[52] At *Markman*, neither party argued the preamble was limiting.

[53] D.I. 122 at 5. Google also points out Collarity's expert describes the '855 patent in a purportedly abstract fashion, without reference to any particular tangible form: "The '855 patent is directed to a method for search refinement, which is the technique of modifying a user's search query, which may better represent the user's intended interest." *Id.* (quoting D.I. 123, Ex. 1 (Expert Report of V.S. Subrahmanian on Infringement) at ¶ 26).

[54] D.I. 129 at 2.

[55] *Id.* (quoting D.I. 130, Ex. 1 at 3) (emphasis added).

[56] *Id.*; D.I. 130, Ex. 2 (U.S. Patent No. 3,340,385 titled "Hole Counter for Superimposable Card Search System, Based on the Use of Balls").

[57] D.I. 129 at 3; D.I. 130, Ex. 3 at 307.

[58] The specification describes one figure illustrating an embodiment having a "search system" that uses "standard" computers: "Typically, search system 10 comprises one or more *standard computer servers* with appropriate memory, communication interfaces and software for carrying out the functions prescribed by the present invention.") (emphasis added); *Alice*, 134 S. Ct. at 2358 (The "mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.").

59 *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1373 (Fed. Cir. 2011); *see also buySAFE, Inc. v. Google Inc.*, 964 F. Supp. 3d 331, 335 (D. Del. 2013) ("A method that can be performed entirely in the human mind is an abstract idea and is not eligible for patent protection.") *aff'd*, 765 F.3d 1350 (Fed. Cir. 2014); *Walker Digital, LLC v. Google Inc.*, 66 F. Supp. 3d 501, 515 (D. Del. 2014) ("Because [the asserted claim] can be performed entirely in a person's mind using routine and conventional steps, it is not directed to patentable subject matter.").

60 D.I. 123, Ex. 2 at 27.

61 *Id.*, Ex. 2 at 27.

62 D.I. 122 at 7.

63 *Id.*

64 D.I. 123, Ex. 3 at 27.

65 *Id.*, Ex. 3 at 26-27 (emphasis added).

66 D.I. 122 at 9.

67 *Id.* at 9-10 (quoting D.I. 123, Ex. 5 at 8).

68 *Id.* at 10.

69 *Alice*, 134 S. Ct. at 2357 (citation omitted).

70 D.I. 126 at 10.

71 *Alice*, 134 S. Ct. at 2357.

72 *Id.* (emphasis in original) (citation and internal quotation marks omitted).

73 *Id.*

74 *Id.* (alterations in original) (citation and internal quotation marks omitted).

75 D.I. 126 at 10.

76 *Id.*

77 773 F.3d 1245 (Fed. Cir. 2014).

78 *Id.* at 1257.

79 *Id.*

80 *Id.* at 1257-58.

81 *Id.* at 1258-59. Collarity also relies on *Intellectual Ventures I LLC v. Mfrs. & Traders Trust Co.*, 76 F. Supp. 536 (D. Del. 2014), where the court, applying the reasoning of *DDR Holdings*, found the asserted claims which "provid[ed] a customized web page with content based on the user's profile and website navigation history" did not work in a "normal, expected manner" but described "an idea and solution for customized web page content, thus, 'the claimed solution is necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks.' " *Id.* at 549 (quoting *DDR Holdings*, 773 F.3d at 1257).

82 D.I. 126 at 11.

83 *Id.*

84 *Id.* (quoting *DDR Holdings*, 773 F.3d at 1258).

85 *DDR Holdings*, 773 F.3d at 1257.

86 D.I. 129 at 7.

87 *Id.* at 8.

88 Although Collarity did not focus extensively on the term "association graph" in its opposition brief, the court concludes that term does not provide an "inventive concept." The court construed "association graph" as "*any data structure* that *conceptually* includes vertices linked by edges, *regardless of the nomenclature used* to describe the data structure, *or how it may be represented, stored, structured, and/or manipulated* in memory and/or another storage medium." D.I. 73 at 8-10, 19 (emphasis added). Based on this very broad construction, the court also agrees with Google's assertion that rather than restricting the claimed "association graph" to a concrete and tangible application, this construction confirms its status as "purely functional and generic." D.I. 122 at 17 (quoting *Alice*, 134 S. Ct. at 2360).

89 '855 patent, claim 2.

90 '855 patent, claim 3.

91 '855 patent, claim 4.

92 '855 patent, claim 5.

93 '855 patent, claim 9.

94 '855 patent, claim 13.

95 D.I. 126 at 4.

96 *Id.* at 8.

97 D.I. 122 at 14 n.9.

98 D.I. 129 at 5 n.3.

99 '855 patent, Claim 12.

100 D.I. 122 at 17. Google states determining the similarity of words is an abstract concept considered by students and English teachers for decades. *Id.* at 17 & 17 n.11 (As support, Google cites a 1926 practice test for the SAT exam that asked students to identify which words are "most closely related" within six word groups. D.I. 123, Ex. 8 at 14.).

101 '855 patent, claim 14.

102 *Alice*, 134 S. Ct. at 2354 (citations an internal quotation marks omitted).

103 *Id.* (citations and internal quotation marks omitted).

104 *Id.* (omission in original) (citations and internal quotation marks omitted).

105 *Id.* (citation omitted).

106 *Id.* (omission in original) (citations an internal quotation marks omitted).

107 *Id.* (alterations in original) (citations and internal quotation marks omitted).

108 *Id.* at 2354-55 (citations and internal quotation marks omitted).

109 D.I. 126 at 2.

110 *Money Suite Co. v. 21st Century Ins. and Fin. Servs., Inc.*, C.A. Nos. 13-984-GMS, 13-985-GMS, 13-986-GMS, 13-1747-GMS, 13-17148-GMS, 2015 WL 436160, at *5 (D. Del. Jan. 27, 2015) (emphasis and alteration in original) (quoting *OIP Techs., Inc. v. Amazon.com, Inc.*, 2012 WL 3985118, at *12 (N.D. Cal. Sept. 11, 2012)).

111 *Id.*

112 *Everglades Game Techs., LLC v. Supercell, Inc.*, C.A. No. 14-643-GMS, 2015 WL 4999654, at *5 (D. Del. Aug. 21, 2015).

113 D.I. 126 at 17.

114 *Id.*; *Id.*, Ex. E ('541 patent).

115 *Id.* at 17-18 (comparing claim 1 of the '855 patent with claim 1 of the '541 patent).

116 '*Id.* at 18.

117 *Id.*

118 *Id.* at 19.

119 *Id.*

120 *Intellectual Ventures I, LLC v. Motorola Mobility LLC*, 81 F. Supp. 3d 356, at 360-61 (D. Del. 2015) (citations omitted).

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