APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/576,076	07/30/2012	Gery M. Ducatel	RYM-36-2415	8989

23117   7590   10/25/2017

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ART UNIT	PAPER NUMBER
2658	

NOTIFICATION DATE	DELIVERY MODE
10/25/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte GERY M. DUCATEL, SIMON G. THOMPSON, and
MARCUS THINT

_____

Appeal 2017-001376
Application 13/576,076
Technology Center 2600

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Before JOSEPH L. DIXON, CATHERINE SHIANG, and
SCOTT B. HOWARD, *Administrative Patent Judges.*

SHIANG, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's
rejection of claims 1–20, which are all the claims pending and rejected in the
application. We have jurisdiction under 35 U.S.C. § 6(b). We affirm-in-
part.

STATEMENT OF THE CASE

Introduction

According to the Specification, the present invention relates to semantic textual analysis. *See generally* Spec. 1. Claim 1 is exemplary:

> 1. A method of determining a degree of semantic similarity between a first text phrase and a second text phrase, the method comprising the steps of:
>
>   a) analysing the grammatical structure of the first text phrase and the second text phrase;
>
>   b) processing the first text phrase to generate a first keyword set;
>
>   c) processing the second text phrase to generate a second keyword set; and
>
>   d) determining the semantic similarity between the first and second text phrases based on
>
>   (I) the similarities between the grammatical structure of the first text phrase and the second text phrase; and
>
>   (II) the similarities between the first and second keyword sets.

References and Rejections

Claims 11–20 are rejected under 35 U.S.C. § 101 because they are directed to patent ineligible subject matter.[1]

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[1] Although the Examiner has indicated that claims 1–10 "present similar issues to the system/device claims [(claims 11–20)], with respect to the 101 rejection above" (Final Act. 7), the Examiner has not entered any proper rejection of claims 1–10 under 35 U.S.C. § 101 (*see id.* at 2 (identifying claims 11–20 as being rejected under 35 U.S.C. § 101)). If prosecution reopens, we leave it to the Examiner to determine whether to reject claims 1–10 under 35 U.S.C. § 101.

Claims 1, 4–12, and 15–20 are rejected under 35 U.S.C. § 102 (b) as being anticipated by Agichtein et al., "Combining Lexical, Syntactic, and Semantic Evidence for Textual Entailment Classification", Proceedings of the First Text Analysis Conference (TAC 2008) ("Agichtein").

Claims 2, 3, 13, and 14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Agichtein and Brown (US 5,477,451 issued Dec. 19, 1995).

ANALYSIS

35 U.S.C. § 101

We disagree with Appellants' arguments, and agree with and adopt the Examiner's findings and conclusions in (i) the action from which this appeal is taken and (ii) the Answer to the extent they are consistent with our analysis below.[2]

The Examiner rejects the claims 11–20 under 35 U.S.C. § 101 because they are directed to patent ineligible subject matter. *See* Final Act. 2; Ans. 2–3. In particular, the Examiner finds the claims are direct to the abstract idea of "performing a mathematical calculation on speech data and generating a mathematical result." Ans. 2. The Examiner further finds the claims use generic computer components to perform generic computer functions. *See* Ans. 2–3. Appellants argue the Examiner erred. *See* App. Br. 8–10; Reply Br. 2–8.

As discussed below, Appellants have not persuaded us of error. We

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[2] To the extent Appellants advance new arguments in the Reply Brief without showing good cause, Appellants have waived such arguments. *See* 37 C.F.R. § 41.41(b)(2).

note the majority of Appellants' arguments in the Appeal Brief are not directed to the rejected claims. *See* App. Br. 8–10. Instead, they are directed to claim 1, which Appellants assert, and we agree, is not rejected under 35 U.S.C. § 101. *See* App. Br. 8–10. Such arguments are unpersuasive because they are not directed to the rejected claims.

Section 101 of the Patent Act 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." 35 U.S.C. § 101. That provision "'. . . contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.'" *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)). According to the Supreme Court:

> [W]e set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, we determine whether the claims at issue are directed to one of those patent-ineligible concepts. . . . If so, we then ask, "[w]hat else is there in the claims before us?" . . . To answer that question, we consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. . . . We have described step two of this analysis 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."

Alice Corp., 134 S. Ct. at 2355.

The Federal Circuit has described the *Alice* step-one inquiry as

looking at the "focus" of the claims, their "character as a whole," and the
Alice step-two inquiry as looking more precisely at what the claim elements
add—whether they identify an "inventive concept" in the application of the
ineligible matter to which the claim is directed. *See Elec. Power Grp., LLC
v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *Enfish, LLC v.
Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016); *Internet Patents
Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015).

Regarding *Alice* step one, the Federal Circuit has "treated *collecting
information*, including when limited to particular content (which does not
change its character as information), as within the realm of abstract ideas."
Elec. Power, 830 F.3d at 1353 (emphasis added); *see also Internet Patents*,
790 F.3d at 1348–49; *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359,
1363 (Fed. Cir. 2015); *Content Extraction & Transmission LLC v. Wells
Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). "In a
similar vein, we have treated *analyzing information* [including manipulating
information] by steps people go through in their minds, or by mathematical
algorithms, without more, as essentially mental processes within the
abstract-idea category." *Elec. Power*, 830 F.3d at 1354 (emphasis added);
see also Elec. Power, 830 F.3d at 1351–1354; *In re TLI Commc'ns. LLC
Patent Litig.*, 823 F.3d 607, 613 (Fed. Cir. 2016). "And we have recognized
that *merely presenting the results of abstract processes of collecting and
analyzing information, without more* (such as identifying a particular tool for
presentation), is abstract as an ancillary part of such collection and analysis."
Elec. Power, 830 F.3d at 1354 (emphasis added); *see also Ultramercial, Inc.
v. Hulu, LLC*, 772 F.3d 709, 714–15 (Fed. Cir. 2014).

The rejected claims "fall into a familiar class of claims 'directed to' a

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patent-ineligible concept." *Elec. Power*, 830 F.3d at 1353. Contrary to Appellants' arguments (App. Br. 8–9; Reply Br. 2–7), the claims are similar to the claims of *Electric Power,* and are focused on the combination of abstract-idea processes or functions. *See Elec. Power*, 830 F.3d at 1354. For example, claim 11 is directed to analyzing and manipulating information ("analyze . . .; process . . .; process . . .; and determine . . . ."). Claim 12 is similarly directed to analyzing and manipulating information. *See Elec. Power*, 830 F.3d at 1353. Appellants have not shown the dependent claims are directed to other non-abstract functions or processes.

Appellants' assertion regarding pre-emption (App. Br. 8–9) is unpersuasive, because "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility . . . . Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* framework, as they are in this case, preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP*, 788 F.3d at 1362–63 ("that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting do not make them any less abstract").

Regarding *Alice* step two, contrary to Appellants' assertion (App. Br. 9–10; Reply Br. 7–8), Appellants have not shown the claims in this case require an arguably inventive set of components or methods, or invoke any assertedly inventive programming. *See Elec. Power*, 830 F.3d at 1355.

Further, contrary to Appellants' arguments (App. Br. 9–10; Reply Br. 7–8), the claims are similar to the claims of *Electric Power*, because they do not require any nonconventional computer or network components, or even a

"non-conventional and non-generic arrangement of known, conventional pieces," but merely call for performance of the claimed information analysis and manipulation functions on generic computer or network components. *See Elec. Power*, 830 F.3d at 1355; *see also* Claim 11 (reciting "[a]n apparatus comprising *a central processing unit, volatile data storage and non volatile data storage*, the apparatus being at least configured to . . . .") (emphasis added); Claim 12 (reciting "[a] non-transitory storage medium storing computer executable code which is executable by *a computer* for . . . .") (emphasis added). The dependent claims call for similar generic components and devices, and Appellants have not shown such claims require any non-conventional components or devices. *See* claims 13–20.

Appellants' arguments that the claims can address problems in various technical fields or require a technical field (App. Br. 10; Reply Br. 2–3) are not commensurate with the scope of the claims, and do not show why the claims are patent eligible. In any event, the Federal Circuit has declared that "limiting the claims to the particular technological environment of [certain area] is, without more, insufficient to transform them into patent-eligible applications of the abstract idea at their core." *Elec. Power*, 830 F.3d at 1354; *see also Alice*, 134 S.Ct. at 2358; *Bilski v. Kappos*, 130 S.Ct. 3218, 3230 (2010).

Contrary to Appellants' assertion (Reply Br. 5), the rejected claims are unlike the claims in *Enfish*. In *Enfish*, the court finds:

> The . . . patents are directed to an innovative logical model for a computer database. . . . A logical model generally results in the creation of particular tables of data, but it does not describe how the bits and bytes of those tables are arranged in physical memory devices. Contrary to conventional logical models, the patented logical model includes all data entities in a single

> table, with column definitions provided by rows in that same
> table. The patents describe this as the "self-referential"
> property of the database.

Enfish, 822 F.3d at 1330.

> [T]he plain focus of the claims is on an improvement to
> computer functionality itself, not on economic or other tasks for
> which a computer is used in its ordinary capacity.
>
> . . .
>
> . . . [T]he claims . . . are directed to a specific
> improvement to the way computers operate, embodied in the
> self-referential table.

Enfish, 822 F.3d at 1336.

The rejected claims are unlike the claims of *Enfish* because they are

not "an improvement to computer functionality itself." *Enfish*, 822 F.3d at

1336. Instead, they are similar to the claims of *Electric Power*, because "the

focus of the claims is not on such an improvement in computers as tools, but

on certain independently abstract ideas that use computers as tools." *Elec.*

Power, 830 F.3d at 1354. In particular, the Examiner finds—and Appellants

fail to persuasively dispute—discarding incompatible protocol-specific

elements during data processing is routine and conventional technology. *See*

Ans. 5. Appellants' attorney arguments (App. Br. 18; Reply Br. 6) are

unpersuasive because they are not supported by persuasive evidence.

Appellants' assertion (Reply Br. 7) about *DDR Holdings*, 773 F.3d at

1257, is unpersuasive. In *DDR Holdings,* the Court found:

> the claims at issue here 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 by the click of a hyperlink. Instead of 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, the
claimed system generates and directs the visitor to the above-
described hybrid web page that presents product information
from the third-party and visual "look and feel" elements from
the host website. When the limitations of the '399 patent's
asserted claims are taken together as an ordered combination,
the claims recite an invention that is not merely the routine or
conventional use of the Internet.

DDR Holdings, 773 F.3d at 1258–59.

This case is materially different from *DDR* because as discussed
above, the claims here recite inventions that are merely the routine or
conventional use of the technology—the opposite of what the claims of *DDR*
represent. *See DDR Holdings*, 773 F.3d at 1258–59.

In the Reply Brief and for the first time, Appellants belatedly argue
specific limitations associated with the dependent claims. *See* Reply Br. 3–
8. Appellants have waived such arguments because they are untimely, and
Appellants have not demonstrated any "good cause" for the belated
presentation. *See* 37 C.F.R. § 41.41(b)(2).

In short, Appellants have not shown the claims, read in light of the
Specification, require anything other than conventional computer and
network technology for analyzing and manipulating the desired information.
See Elec. Power, 830 F.3d at 1354. Such invocations of computers and
networks are "insufficient to pass the test of an inventive concept in the
application" of an abstract idea. *See Elec. Power*, 830 F.3d at 1355.

Because Appellants have not persuaded us the Examiner erred, we
sustain the Examiner's rejection of claims 11–20 under 35 U.S.C. § 101.

35 U.S.C. § 102

We have reviewed the Examiner's rejection in light of Appellants' contentions and the evidence of record. We concur with Appellants' contention that the Examiner erred in finding the cited portions of Agichtein disclose "b) processing the first text phrase to generate a first keyword set; c) processing the second text phrase to generate a second keyword set," as recited in independent claim 1 (emphasis added).[3] *See* App. Br. 11–12; Reply Br. 8–9.

The Examiner initially cites Agichtein's section 2.2 for teaching the disputed claim limitations, and finds

> processing the first text phrase to generate a first keyword set (section 2.2 as calculating how many of the same words that appear in both first and second phrases -- "word overlap"; c) processing the second text phrase to generate a second keyword set (as processing the second text phrase - section 2.2, lexical similarity)[.]

Final Act. 3.

> In response to Appellants' arguments, the Examiner

> point[s] to Agichtein teaching the use of phrases (page 3, section 2.3, "Role Similarity"), wherein the parser operates on phrases. The following section, under "POS Similarity", similarity metrics are applied *"onto a different subset of the text and hypothesis"*. Therefore, Agichtein teaches first and second phrases, with a separate first and second keyword sets.

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[3] Appellants raise additional arguments with respect to the anticipation rejection. Because the identified issue is dispositive of the appeal with respect to the anticipation rejection, we do not reach the additional arguments.

Ans. 8.

We disagree. The Examiner's above findings do not explain why the cited Agichtein's portions disclose "b) processing the first text phrase to generate a first keyword set; c) processing the second text phrase to generate a second keyword set," as required by the claim. In particular, the Examiner's above finding that "Agichtein teaches first and second phrases, with a separate first and second keyword sets" (Ans. 8) is insufficient for meeting the anticipation requirement. Further, we have reviewed the cited Agichtein portions, and they do not disclose the disputed limitations. Absent further explanation from the Examiner, we do not see how the cited Agichtein portions disclose the disputed claim limitations.

Because the Examiner fails to provide sufficient evidence or explanation to support the anticipation rejection, we are constrained by the record to reverse the Examiner's rejection of claim 1.

Each of independent claims 11 and 12 recites a claim limitation that is substantively similar to the disputed limitation of claim 1. *See* claims 11 and 12. Therefore, for similar reasons, we reverse the Examiner's rejection of independent claims 11 and 12.

We also reverse the Examiner's anticipation rejection of corresponding dependent claims 4–10 and 15–20.

35 U.S.C. § 103

The Examiner cites an additional reference for the obviousness rejection of claims 2, 3, 13, and 14. The Examiner relies on Agichtein in the same manner discussed above in the context of claim 1, and does not rely on

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the additional reference in any manner that remedies the deficiencies of the underlying anticipation rejection. *See* Final Act. 5–6.

Accordingly, we reverse the Examiner's obviousness rejection of claims 2, 3, 13, and 14.

DECISION

We reverse the Examiner's decision rejecting claims 1–20 under 35 U.S.C. §§ 102, 103.

We affirm the Examiner's decision rejecting claims 11–20 under 35 U.S.C. § 101.

AFFIRMED-IN-PART