UNITED STATES PATENT AND TRADEMARK OFFICE

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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 BRIAN ADAMS

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Appeal 2017-001016
Application 13/854,061
Technology Center 3600

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Before JOSEPH L. DIXON, JOHN P. PINKERTON, and
JASON M. REPKO, *Administrative Patent Judges*.

DIXON, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134(a) from a rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

The claims are directed to a method and apparatus for mapping message data. Claim 1, reproduced below, is representative of the claimed subject matter:

> 1.   A method comprising:
>
> receiving a first healthcare message in a first format, the first healthcare message comprising a first set of healthcare data comprising at least one healthcare data value, wherein the healthcare data value is derived from one or more predetermined data values entered into a medical records application;
>
> determining a content of the first healthcare message;
>
> determining, using a processor, a first portion of a structure of the first healthcare message that corresponds to the one or more of the predetermined data values based on the content of the first healthcare message; and
>
> storing mapping data indicating that the first portion of the structure of the first healthcare message corresponds to the one or more of the predetermined data values.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Adams et al.	US 2011/0010401 A1	Jan. 13, 2011
Neben	US 2011/0173346 A1	July 14, 2011
Gunn	US 2011/0119088 A1	May 19, 2011

REJECTIONS

The Examiner made the following rejections:

Claims 1–20 stand rejected under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more.

Claims 1, 8, and 9 are rejected under 35 U.S.C. § 112(a) or 35 U.S.C. § 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement.[1]

Claim[s] 1[–11] stand rejected under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the inventor or a joint inventor regards as the invention.[2]

Claims 1–4, 6, 12–15, and 17–20 stand rejected under 35 U.S.C. § 102(a)(1) as being anticipated by Adams.

Claims 7–11 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adams in view of Neben.

Claims 5 and 16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Adams in view of Gunn.

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[1] We note that a rejection of independent claim 1 based upon written description implies that all the dependent claims depending therefrom are also included. Consequently, claims 1–11 have been rejected under 35 U.S.C. § 112(a).

[2] *See* n.1. Same rationale applies for indefiniteness under 35 U.S.C. § 112(b).

ANALYSIS

35 U.S.C. § 101 REJECTION

We will sustain the rejection of claims 1–20 under 35 U.S.C. § 101.

The Supreme Court

> 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, . . .
> 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, . . .
> 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. [The Court] 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. Pty. Ltd. v CLS Bank Int'l, 134 S. Ct. 2347, 2355 (2014) (citing
Mayo Collaborative Servs. v. Prometheus Labs., Inc., 566 U.S. 66, 72–73
(2012)).

To perform this test, we must first determine whether the claims at
issue are directed to a patent-ineligible concept.

Although the Court in *Alice* made a direct finding as to what the
claims were directed to, here we find that the claims themselves and the
Specification provide enough information to inform one as to what they are
directed to.

The steps in claim 1 result in: storing mapping data indicating that the first portion of the structure of the first healthcare message corresponds to the one or more of the predetermined data values. The Specification describes the background of the prior art manual mapping:

> Experts may manually generate mapping programs that format input data in a first vendor's format to output data suitable for another vendor's format. Development of these mapping programs requires careful analysis of the form and structure of the structure of both the sending and receiving structure, such that generation of mapping programs is a laborious and time consuming task. As new messaging structures are implemented in response to standards revisions and product updates, new mapping programs must be generated to allow the new messaging structures to function with systems that implement alternative messaging structures.

(Spec. ¶ 4). The Specification further describes "present invention in order to provide for mapping of the structure healthcare messages using known healthcare data." (Spec. ¶ 5). The Specification further describes:

> For the purposes of this application, the term "healthcare message" should be understood to refer to at least any message or medical record provided in a format suitable for communication within a healthcare records system, such as a healthcare exchange. As such, the term "healthcare message" may include, but is not limited to, messages for transmission, modification, creation, or deletion of medical records (e.g., HL7 admit-discharge-transfer (ADT) messages), or any file or data format for storing of medical records or medical record data.

(Spec. ¶ 18). Finally, Appellant describes the apparatus as "[t]he apparatus 102 may be any computing device capable of functioning in a health information infrastructure, including desktop or laptop computers, mobile devices, tablet computers, servers, or the like." (Spec. ¶ 20).

Thus, the intrinsic evidence shows that claim 1 is directed to determining a set of mapping data for a healthcare message. It follows from prior Supreme Court cases, and *Gottschalk v. Benson*, 409 U.S. 63 (1972) in particular, that the claims at issue here are directed to an abstract idea. We determine the claims to be directed to: abstractly determining a mapping of one data to another data structure to be like a method of organizing human activities (managing a human asset) and to be like a fundamental economic practice (customer/vendor relationship) –which are at the patent-ineligible end of the 35 U.S.C. § 101 spectrum. *See Alice*, 134 S. Ct. at 2356. That is, we find the claimed steps of receiving, determining, determining, and storing, constitute acts that could be performed by a human and/or "analyzing information by steps people go through in their minds, or by mathematical algorithms, without more, as essentially mental processes within the abstract-idea category." *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016). *See also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014) (claims directed to certain arrangements involving contractual relations are directed to abstract ideas). Thus, the determining and storing mapping data for a healthcare message is directed to an "abstract idea" beyond the scope of § 101.

As in *Alice*, we need not labor to delimit the precise contours of the "abstract ideas" category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of an intermediated settlement in *Alice* and the concept of determining and storing mapping data for a healthcare message, at issue here. Both are squarely within the realm of "abstract ideas" as the Court has used that term. That the claims do not preempt all forms of the abstraction or may be limited

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to asset management, does not make them any less abstract. *See OIP Techs.,
Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1360–61 (Fed. Cir. 2015).

The introduction of a computer/processor into the claims does not
alter the analysis at *Mayo* step two.

> [T]he mere recitation of a generic computer cannot transform a
> patent-ineligible abstract idea into a patent-eligible invention.
> Stating an abstract idea "while adding the words 'apply it'" is not
> enough for patent eligibility. Nor is limiting the use of an
> abstract idea "'to a particular technological environment.'"
> Stating an abstract idea while adding the words "apply it with a
> computer" simply combines those two steps, with the same
> deficient result. Thus, if a patent's recitation of a computer
> amounts to a mere instruction to "implement[t]" an abstract idea
> "on . . . a computer," that addition cannot impart patent
> eligibility. This conclusion accords with the preemption concern
> that undergirds our § 101 jurisprudence. Given the ubiquity of
> computers, wholly generic computer implementation is not
> generally the sort of "additional feature[e]" that provides any
> "practical assurance that the process is more than a drafting effort
> designed to monopolize the [abstract idea] itself."

Alice, 134 S. Ct. at 2358 (alterations in original) (citations omitted).

"[T]he relevant question is whether the claims here do more than
simply instruct the practitioner to implement the abstract idea . . . on a
generic computer." *Alice*, 134 S. Ct. at 2359. They do not.

Taking the claim elements separately, the function performed by the
computer/processor at each step of the process is purely conventional.
Using a computer to take in data, compute -a result, and return the result to a
user amounts to electronic data query and retrieval–some of the most basic
functions of a computer. All of these computer functions are well-
understood, routine, conventional activities previously known to the
industry. In short, each step does no more than require a generic computer
to perform generic computer functions.

Considered as an ordered combination, the processor of Appellant's method add nothing that is not already present when the steps are considered separately. Viewed as a whole, Appellant's claims simply recite the concept of determining and storing mapping data for a healthcare message. The claims do not, for example, purport to improve the functioning of the computer itself. Nor do they effect an improvement in any other technology or technical field. Instead, the claims at issue amount to nothing significantly more than instructions for determining and storing mapping data for a healthcare message. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 134 S. Ct. at 2360.

As to the structural claims, they

> are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long "warn[ed] . . . against" interpreting § 101 "in ways that make patent eligibility 'depend simply on the draftsman's art.'

Alice, 134 S. Ct. at 2360 (alterations in original).

We have reviewed all the arguments (App. Br. 19–22) Appellant has submitted concerning the patent eligibility of the claims before us which stand rejected under 35 U.S.C. § 101. We find that our analysis above substantially covers the substance of all the arguments that have been made. But, for purposes of completeness, we will address various arguments in order to make individual rebuttals of same.

Appellant argues, that the Examiner has failed to establish a prima facie argument for in eligibility. (App. Br. 19–20). Specifically, Appellant contends "the Final Office Action fails to provide any discussion of specific

claim features of Appellant's claims, nor does the Final Office Action

provide any reasoning for why these claim features fail to recite

'significantly more' than the abstract idea." (App. Br. 20). Appellant

further argues that the claims are not abstract. (App. Br. 20–21). Appellant

contends that independent claim 1 is similar to the Example 1 "Abstract Idea

Examples," published on January 27, 2015. (App. Br. 21). We disagree

with Appellant and find that "Example 1" is directed to removing malicious

code from email messages, but the present claims do not modify the

message, but merely provide mapping data which does not change the

message in the generic "method." Appellant's argument is not

commensurate in scope with the language of representative independent

claim 1. Finally, Appellant argues that the claims recite significantly more

than the alleged of abstract idea. (App. Br. 21–22). Appellant specifically

argues:

> The claims also provide an improvement in the functioning of a
> computer by allowing dynamic definition of message structures
> through the use of predetermined input data. The claims also
> address the problem of enabling communication between devices
> with incompatible message structures, a problem that is unique
> to the realm of computer networking in the same manner as the
> patentable claims described in *DDR Holdings v. Hotels.com.*

(App. Br. 22).

We disagree with Appellant because in *DDR*, the claims at issue

involved, *inter alia*, "web page displays [with] at least one active link

associated with a commerce object associated with a buying opportunity of a

selected one of a plurality of merchants" (claim 1 of US 7,818,399 B1, Oct.

19, 2010). There is no such claim element with this degree of detail here

before us.

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We find Appellant's arguments are not commensurate in scope with the language of independent claim 1, which does not claim the the method in the detail argued. Appellant's arguments are not persuasive because such arguments are not commensurate in scope with the language of independent claims 1, 12, and 18. *See In re Self*, 671 F.2d 1344, 1348 (CCPA 1982) (limitations not appearing in the claims cannot be relied upon for patentability).

Moreover, we disagree with Appellant, because the Examiner finds, as do we above, that the limitations in the independent claims 1, 12, and 18 set forth or describe the abstract idea are: "receiving," "determining," "determining," and "storing" steps for improving the abstract idea itself of comparing and mapping data to convert and transmit information. There is no improvement shown in the actual technical field of network computing in terms of improvement in the computers themselves or in the logic or processing of a network. (Ans. 5).

As discussed above, the Specification identifies the use of "desktop or laptop computers" (Spec. ¶ 20) to "provide for mapping of message structures to facilitate the transfer of healthcare data" (Spec. ¶ 17), but that does not claim the modification of the received data. This is an effect and not a specific means or method that improves the relevant technology. The question is whether the claims as a whole "focus on a specific means or method that improves the relevant technology" or are "directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery." *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). In this case, claim 1, as a whole, is focused on the idea of determining mapping data and storing the data.

Appellant does not file a Reply Brief to respond to the Examiner's further clarifications of the rejection. As a result, Appellant has not shown error in the Examiner's conclusion of a lack of patent eligible subject matter in representative independent claim 1. As a result, we sustain the rejection of representative independent claim 1 and independent claims 12 and 18 not separately argued and the respective dependent claims 2–11, 13– 17, 19, and 20.

35 U.S.C. § 112(a) REJECTION

With respect to independent claim 1 (and dependent claims 2–11), the Examiner rejects the claims based upon a lack of written description support for the claim phrase "the healthcare data value is derived from one or more predetermined data values entered into a medical records application," and the Specification does not provide support for the concept of predetermined data or for the concept of deriving a healthcare data value from the predetermined data values. (Final Act. 7–8). The Examiner further finds that paragraph 34 states that "predetermined values from a record management system are from fictitious records, but deriving healthcare data values is not disclosed." (Final Act. 8).

We disagree with the Examiner and find Appellant identified paragraphs "[0017], [0034], [0035], [0040], [0047], [0049]" of the Specification and provides a discussion of the input of known data into the healthcare message. (App. Br. 9). We note that the Examiner merely repeats the same argument from the Final Action in the Examiner's Answer. (Ans. 6). Furthermore, we find the Specification in paragraphs 33–37 discloses the input of known data into a healthcare message at a client that will allow the record management system to receive the healthcare message and dynamically determine the mapping therefrom. As a result, we find that

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Appellant had possession of the claimed invention recited in independent claim 1 and its respective dependent claims 2–11.

With respect to dependent claims 8 and 9, the Examiner additionally finds a lack of written description support for the term "confidence value" in the Specification. (Final Act. 8).

Appellant identifies paragraphs 50 and 51 that discuss the likelihood and confidence. (App. Br. 12–13).

The Examiner maintains:

> Although the specification describes marking a set of values as highly likely to correspond to data, this is not a confidence value. Determining something is highly likely is a confidence level and not a confidence value. A confidence value indicates a calculation of a specific value. There is no formula described for how to calculate a confidence value. Paragraph 50 of the specification does discuss that weights are applied to factors to come up with a likelihood, but this does not describe how one of ordinary skill in the art would know how or when to apply weights to a factors and which factors would be weighted or even applied to the likelihood.

(Ans. 6).

We find the Examiner's rejection to be directed to an issue of enablement, but the Examiner has set forth the rejection based upon a lack of written description requirement. (Final Act. 7–8).

We find paragraphs 50 and 51 of the Specification describe a determination of a likelihood of a match and "mapping of particular bit values to particular data fields may be confirmed if the likelihood of a match rises above a particular threshold value" (Spec. ¶ 50) and "the method may determine whether a mapping with a reasonably high level of confidence has been determined for each possible type of data to be included in various

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healthcare messages" (Spec. ¶ 51). As a result, we find Appellant has shown possession of the subject matter recited in the language of dependent claims 8 and 9, and we cannot sustain the rejection thereof.

35 U.S.C. § 112(b) REJECTION

In the Final Rejection, the Examiner withdrew the separate indefiniteness rejection of dependent claim 10 that was presented in the Non-Final Rejection. (Final Act. 3).

With respect to independent claim 1, the Examiner finds the use of "predetermined data values" to be indefinite. (Final Act. 9). We understand the Examiner to also reject claims 2–11 under this rationale based on their dependency. (Final Act. 9). The Examiner maintains that

> the specification does not clearly disclose what data values would be considered predetermined. Examiner construes this to be the data value from the medical record currently in the system, where determining a first portion of a healthcare message that corresponds to the predetermined data values based on the content of the message is the process of comparing the value from the medical record to the value in the healthcare message.

(Final Act. 9).

Appellant identifies paragraphs 34, 36, and 40 in the Specification to interpret the terms "known" or "predetermined." (App. Br. 13). Appellant further contends that in "addressing the rejection under 35 U.S.C. § 112, first paragraph, Appellant's specification includes lengthy recitations of the use of input data that is known to a record management system at the time it is entered into a client record system (see, e.g., Figure 3, element 304)." (App. Br. 13). Appellant further argues that

> in contrast to the manner in which the structure of the generated message is "unknown" to the record management system at the

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time the "known" data values are encoded into the message by the client record system. (See, e.g., Specification [0039], [0052]). Appellant submits that a person of ordinary skill would understand that the term "predetermined" is intended to characterize the set of input data provided to the client record system as being known or predetermined by the records management system, as clearly recited in Appellant's Specification at [0032]. Accordingly, Appellant submits that a person of ordinary skill would clearly understand the use of the term "predetermined data values" to refer to data values that are provided by, visible to, or of which a system performing the process is otherwise aware (e.g., a records management application) outside the context of the message generated by the client.

(App. Br. 13–14).

The Examiner further maintains:

Claim 1 recites the term "predetermined data values" which is considered to be indefinite. The specification describes the known or predetermined data to be that which a user is instructed to input into the application in Paragraph 34. However, there is no indication of where this data value is coming from. There is no description of how the system is determining the predetermined data value is "John Doe" or "October 6, 1982" and as described in Paragraph 32 of the specification, the format of the fields may not always be the same, thus how would one determine which predetermined data value is to be used as it would be based on the format of the particular record system.

(Ans. 6–7).

We agree with Appellant that the claim terminology is not indefinite, but rather is broad. As a result, we cannot sustain the Examiner's indefiniteness rejection of claims 1–11.

35 U.S.C. § 102 REJECTION

With respect to claims 1–4, 6, 12–15, and 17–20, Appellant does not set forth separate arguments for the claims. As a result, we select independent claim 1 as the representative claim for the group and address Appellant's arguments thereto. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds that the Adams reference discloses all of the claimed limitations in independent claim 1. The Examiner further maintains that the limitation

> wherein the healthcare data value is derived from one or more predetermined data values entered into a medical records application (Examiner notes that this limitation does not bear patentable weight as how the data value is derived does not impact the receiving of the message which is made up of a healthcare data value).

(Final Act. 10).

Appellant contends that "Final Office Action disregards the features of Appellant's claims that relate to the manner in which the data is received (i.e., that it is predetermined), and that the particular predetermined data is identified within the message in order to perform the determination of the message structure." (App. Br. 15). Appellant further contends that:

> As in *Di[S]tefano,* the instant use of "predetermined" data describes the data not by its content (e.g., whether the data recites "John Doe"), but instead as a functional characteristic of the data itself (e.g., the fact that it is predetermined prior to being entered into the medical records application).

(App. Br. 16). Appellant further contends that

even if the "predetermined data values" were considered printed matter, the second phase of the test, "having a functional or structural relationship with the substrate" still indicates that this information should be accorded patentable weight. In particular, the particular predetermined data values are in a direct functional relationship with the records management system that functions to identify the structure of the message, as the predetermined data values represent the particular portions of the message used to determine the structure of the message.

(App. Br. 17).

The Examiner maintains that there is no patentable weight given to the "predetermined data" because "how the data value is derived does not impact the receiving of the message." (Final Act. 10).

We agree with the Examiner and find that the Examiner has set forth a finding of the four functional steps in generic "method" recited in the language of representative independent claim 1. Moreover, the Examiner cites to paragraphs 23, 24, 26, 29, 33, and 37–39 of the Adams reference to disclose the recited limitations. (Final Act. 10–11).

The Examiner maintains that paragraphs 24 and 29 disclose the step of receiving healthcare message. We agree with the Examiner. The Examiner additionally finds

> wherein the healthcare data value is derived from one or more predetermined data values entered into a medical records application (Examiner notes that this limitation does not bear patentable weight as how the data value is derived does not impact the receiving of the message which is made up of a healthcare data value);

(Final Act. 10). We agree with the Examiner and further note that the language of independent claim 1 does not set forth a separate step with respect to any difference in how the data is received differently than would

be disclosed by the system of Adams. Therefore, Appellant has not shown error in the Examiner's finding of anticipation of representative independent claim 1 and independent claims 12 and 18 and the dependent claims 2–4, 6, 13–15, 17, 19, and 20, not separately argued with specificity.

35 U.S.C. § 103 REJECTION

With respect to dependent claims 5, 7–11, and 16, Appellant relies upon the arguments advanced with respect to the anticipation rejection and does not set forth separate arguments for patentability of the dependent claims. As a result, we group these claims as falling with representative independent claim 1.

CONCLUSIONS

The Examiner did not err in rejecting claims 1–20 based upon a lack of patent eligible subject matter under 35 U.S.C. § 101; the Examiner erred in rejecting claims 1–11 based upon a lack of written description support under 35 U.S.C. § 112(a); the Examiner erred in rejecting claims 1–11 based upon indefiniteness under 35 U.S.C. § 112(b); the Examiner did not err in rejecting claims 1–4, 6, 12–15, and 17–20 based upon anticipation under 35 U.S.C. § 102; and the Examiner did not err in rejecting claims based upon 5, 7–11, and 16 based upon obviousness under 35 U.S.C. § 103.

DECISION

For the above reasons, we reverse the Examiner's written description and indefiniteness rejections, but we sustain the Examiner's patent ineligibility, anticipation, and obviousness rejections.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED