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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* JOSEPH F. CIHULA<sup>1</sup>

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Appeal 2016-008155  
Application 10/746,077  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, ANTON W. FETTING, and  
JOSEPH A. FISCHETTI, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant seeks our review under 35 U.S.C. § 134 of the Examiner's final decision rejecting claims 34, 35, 43–52 and 60–75. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

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<sup>1</sup> Appellant identifies the Real Party in Interest as Intel Corp. App. Br. 3.

## BACKGROUND

Appellant's invention is directed to a method and apparatus for establishing trust in smart card readers. Spec. 1

Claim 34 is illustrative:

34. A smart card, comprising:

an attestation verifier unit that performs a test on a smart card reader by comparing a measurement value of a component of the smart card reader with a measurement value stored on the smart card; and

an indicator, on the smart card, that outputs an indication to a smart card user of whether the smart card reader passed the test.

The Examiner relies on the following prior art references as evidence of unpatentability:

Kawana	US 4,746,788	May 24, 1988
Deo	US 5,721,781	Feb. 24, 1998
Allen	US 6,776,332 B2	Aug. 17, 2004

Appellant appeals the following rejections:

Claims 34, 35, 43–52, and 60–75 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 34, 35, 43–52, and 60–67 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawana and Allen.

Claims 68–75 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Deo, Kawana, and Allen.

## PRINCIPLES OF LAW

An invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.” 35 U.S.C. § 101. The Supreme Court, however, has long interpreted § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *E.g.*, *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2354 (2014).

In determining whether a claim falls within the excluded category of abstract ideas, we are guided in our analysis by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Id.* at 2355 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1296–97 (2012)). In accordance with that framework, we first determine whether the claim is “directed to” a patent-ineligible abstract idea. *See Alice*, 134 S. Ct. at 2356 (“On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.*, the use of a third party to mitigate settlement risk.”); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”); *Diamond v. Diehr*, 450 U.S. 175, 184 (1981) (“Analyzing respondents’ claims according to the above statements from our cases, we think that a physical and chemical process for molding precision synthetic rubber products falls within the § 101 categories of possibly patentable subject matter.”); *Parker v. Flook*, 437 U.S. 584, 594–95 (1978) (“Respondent’s application simply provides a new and presumably better method for calculating alarm limit values.”); *Gottschalk v. Benson*, 409 U.S. 63, 64 (1972) (“They claimed a method for converting binary-coded decimal (BCD) numerals into pure binary numerals.”).

The patent-ineligible end of the spectrum includes fundamental economic practices, *Alice*, 134 S. Ct. at 2357; *Bilski*, 561 U.S. at 611; mathematical formulas, *Parker*, 437 U.S. at 594–95; and basic tools of scientific and technological work, *Gottschalk*, 409 U.S. at 69. On the patent-eligible side of the spectrum are physical and chemical processes, such as curing rubber, *Diamond*, 450 U.S. at 184 n.7, “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores,” and a process for manufacturing flour, *Gottschalk*, 409 U.S. at 69.

If the claim is “directed to” a patent-ineligible abstract idea, we then consider the elements of the claim—both individually and as an ordered combination—to assess whether the additional elements transform the nature of the claim into a patent-eligible application of the abstract idea. *Alice*, 134 S. Ct. at 2355. This is a search for an “inventive concept”—an element or combination of elements sufficient to ensure that the claim amounts to “significantly more” than the abstract idea itself. *Id.*

Claims involving data collection, analysis, and display are directed to an abstract idea. *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016) (holding that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent ineligible concept”); *see also In re TLI Comms. LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016).

## ANALYSIS

*Rejection under 35 U.S.C. § 101*

The Examiner holds that the claims are directed to the abstract idea of comparing a test result and providing an indicator of the test result. Final Act. 3. The Examiner further holds that the steps describe the concept of comparing new and stored information and using rules to identify options which corresponds to the concepts identified as abstract ideas by the courts. Ans. 3.

In regard to the second part of the *Alice* analysis, the Examiner finds that the additional elements do not provide meaningful limitations to transform the abstract idea into a patent eligible application of the abstract idea such that the claims amount to significantly more than the abstract idea itself. Final Act. 3–4. Specifically, the Examiner finds that the additional limitations amount to conventional computer functions that do not add meaningful limits to practice the abstract idea. Ans. 2–3.

We are not persuaded of error on the part of the Examiner in rejecting claim 34 by Appellant’s argument that the Examiner failed to establish a prima facie case of patent ineligibility because the Examiner failed to show that claim 34 is directed to a fundamental truth or a fundamental principle which would preempt the use of basic tools of scientific and technological work.

The Examiner holds that the claims are directed to analyzing data by comparing measurement values to stored measurement values and outputting data indicating the results of the measurement. As such, the Examiner holds that the claims are directed to the collection, analysis and transmission of data and as such relate to an abstract idea. The Examiner does not base the rejection on a holding that claim 34 is directed to a fundamental truth or a fundamental principle.

In regard to preemption, we note that while preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015); *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701, (2015) (“[T]hat 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.”). And, “[w]here 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*, 788 F.3d at 1379.

We do not agree with the Appellant that claim 34 includes additional elements that amount to significantly more than the abstract idea because the claims recite comparing a measurement value of a component of a smart card reader with measurement value stored on a smart card and having a smart card output a sound/vibrate/change its temperature. These recitations also relate to comparing a test result and providing an indicator of the test result and therefore are part of the abstract idea itself. We also agree with the Examiner that the function of the indicator is a computer function that is well understood, routine and conventional.

We are also not persuaded of error on the part of the Examiner by Appellant’s arguments that claim 34 recites an invention that is an improvement in the technical field of establishing trust in the smart card reader because prior approaches do not include comparing a measurement value of a component of a smart card reader with the measurement value stored on a smart card. This argument appears to be directed to the novelty

of the present invention. To the extent Appellant maintains that the limitations of claim 34 necessarily amount to “significantly more” than an abstract idea because the claimed apparatus is allegedly patentable over the prior art, Appellant misapprehends the controlling precedent. Although the second step in the *Alice/Mayo* framework is described as a search for an “inventive concept,” the analysis is not an evaluation of novelty or non-obviousness, but rather, a search for “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*, 134 S. Ct. at 2355 (quoting *Mayo*, 132 S. Ct. at 1294). A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304.

In view of the foregoing, we will sustain the Examiner’s rejection of claim 34. We will also sustain this rejection as it is directed to independent claims 35, 43, 68, 71, and 74 because the Appellant has not argued the separate eligibility of these claims.

Appellant argues that the Examiner erred in rejecting dependent claims 44-52, 60-67, 69, 70, 72, 73 and 75 because the Examiner has failed to evaluate the features of the dependent claims. We note that the Appellant has not addressed specifically what recitations in these claims are not directed to an abstract idea or which recitations amount to significantly more than an abstract idea. Our review of the recitations in claims 48–52, which depend from independent claims 34, 35 and 43, for example, indicates that the additional claim limitations in these claims further define the abstract idea of the analysis and transmission of data. For example, claims 48–51 further define the test data and claim 52 which depends from claim 35

recites providing an indicator on the smart card which is also recited in independent claim 34. As such, these dependent claims, like claim 34, recite comparing a test result and providing an indicator thereof and are covered by the Examiner's analysis in the rejection. Therefore, we will sustain the rejection as it is directed to the dependent claims as well.

*Rejections under 35 U.S.C. § 103*

*Claims 34, 35, 43–52 and 60–67*

We will not sustain this rejection because we agree with the Appellant that the prior art does not disclose comparing a measurement value of a component of the smart card reader with a measurement value stored on the smart card. The Examiner finds in the Final Action that Kawana discloses this subject matter at column 4, lines 39–46 and depicts this subject matter in Figure 1. Final Act. 4.

Appellant's Specification discloses that the measurement values represent attributes of components of the smart card reader or states of the smart card reader that are output by a measurement agent. Spec. 6. The measurement values may include a value indicating whether the smart card reader has been tampered with, data associated with a version of software running on the smart card or other measurement values that may be generated dynamically. Spec. 8.

We find that the portion of Kawana relied on by the Examiner discloses that decrypted personal account data latched in a data latch unit is compared to personal account data from memory. There is no disclosure that this data is measurement data i.e., there is no disclosure that the personal

account data represents attributes of components of the smart card reader or states of the smart card reader.

In the Answer, the Examiner apparently recognizing that Kawana does not disclose this subject matter argues that the value does not have to be a “measurement” value since there is no language or limitation in the claims which requires a measurement. Ans. 4.

We do not agree. Claim 34, for example, clearly recites that it is the measurement value of a component that is compared to the measurement value stored on the smart card. While there is no measuring recited in claim 34, the value that is compared is a measurement value and therefore the measurement value must be considered when determining patentability.

In view of the foregoing, we will not sustain the rejection as it is directed to claim 34 and claims 50, 51, 60–63 dependent therefrom. We also do not sustain the rejection as it is directed to the remaining claims subject to this rejection because these claims also require comparing a measurement values.

*Claims 68–75*

We will not sustain this rejection because we agree with the Appellant that the Examiner has not established that the prior art discloses or suggests having a smart card output a sound, vibrating a card or changing the temperature of the smart card to indicate to a smart card user the result of the test.

The Examiner states that the claimed feature of “output and sound . . .” is old and well known in the field of the art and is no more than the simple substitution of one known element for another. Final Act. 7.

We will also not sustain this rejection of claim 68 and claims 69 and 70 dependent therefrom because the Examiner has not provided evidence that is known in the art for a smart card to provide a sound indication. Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The Examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1968).

#### DECISION

We affirm the Examiner's § 101 rejection.

We do not affirm the Examiner's § 103 rejections.

#### TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(2009).

AFFIRMED