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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WILLIAM M. CATANIA, MICHAEL J. KAVIS, and
GREGORY H. RAPP

Appeal 2017-003742
Application 12/783,666
Technology Center 3600

Before CARL W. WHITEHEAD, JR., BRADLEY W. BAUMEISTER, and
JEFFREY S. SMITH, *Administrative Patent Judges*.

WHITEHEAD, JR., *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants are appealing the final rejection of claims 61–81 under 35 U.S.C. § 134(a). Appeal Brief 8–16. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We affirm.

Introduction

The invention is directed to, “A system and method for issuance, redemption, and reimbursement of digital incentives.” Abstract.

Illustrative Claim

61. A method for issuance, redemption, and reimbursement of digital incentives comprising:

adding a message broker to cooperate with a given existing point-of-sale (POS) terminal in a retail environment to provide compatibility with a central database, the given existing POS terminal being of a given type from among a plurality of different types of POS terminals associated with a plurality of different retailers, the given existing POS terminal having an identifiable attribute associated therewith, the message broker operating independently from the plurality of different types of POS terminals and independently from a respective loyalty program associated with the plurality of different retailers;

storing in the central database that is connected to a communications network a unique customer identifier in association with each of a plurality of customers;

storing in the central database information about one or more digital incentives in association with one or more of the unique customer identifiers;

storing in the central database information about the given existing POS terminal;

receiving, via the message broker via the communications network, a unique customer identifier associated with a customer that has selected one or more items for purchase;

obtaining, via the message broker from the given existing POS terminal, information identifying the one or more items selected for purchase by the customer associated with the unique customer identifier that was received;

transmitting, via the message broker, to the central database the unique customer identifier and the information identifying the items that the customer has selected for purchase;

authenticating, via the central database, the given existing POS terminal based upon the associated identifiable attribute;

validating, via the central database, the unique customer identifier;

identifying, via the central database, each digital incentive that is associated with the unique customer identifier and that is applicable to at least one of the items that the customer has selected for purchase;

receiving, from the central database, via the message broker, information about each of the applicable digital incentives; and

transmitting, via the message broker, to the authenticated given existing POS terminal information identifying the one or more applicable digital incentives for redemption.

Rejections on Appeal

Claims 61–81 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 61–81 are directed to the concept of managing and authorizing transactions and incentives in a retail environment using the point of sale system and a central server system, which is a fundamental economic practice as it is managing and authorizing promotions in a retail network environment. Final Action 2–3.

Claims 61–65, 67, 71–74, 77, 79, and 81 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel (US Patent Application Publication 2003/0130889 A1; published July 10, 2003), Byerley (US Patent Application Publication 2006/0224449 A1; published October 5, 2006), James (US Patent Application Publication 2009/0106115 A1; published April 23, 2009) and Morioka (US Patent Application Publication 2003/0125977 A1; published July 3, 2003). Final Action 3–21.

Claims 66 and 70 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, and Leming

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(US Patent Application Publication 2008/0319846 A1; published
December 25, 2008). Final Action 21–25.

Claims 68 and 69 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, and Beach (US Patent Application Publication 2002/0107738 A1; published August 8, 2002). Final Action 25–27.

Claims 75 and 76 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, and Johnson (US Patent Application Publication 2002/0124170 A1; published September 5, 2002). Final Action 28–32.

Claims 78 and 80 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, and Michaelis (US Patent Application Publication 2008/0262928 A1; published October 23, 2008). Final Action 32–35.

ANALYSIS

Rather than reiterate the arguments of Appellants and the Examiner, we refer to the Appeal Brief (filed June 23, 2016), the Reply Brief (filed January 11, 2017), the Answer (mailed December 1, 2016) and the Final Action (mailed March 23, 2016) for the respective details.

35 U.S.C. § 101 Rejection

The Supreme Court has set forth an analytical “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Alice Corp. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66,

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71–73 (2012)). In the first step of the analysis, we determine whether the claims at issue are “directed to” a judicial exception, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If not, the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed. Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016). If the claims are determined to be directed to an abstract idea, then we consider under step two whether the claims contain an “inventive concept” sufficient to “transform the nature of the claim into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (quotations and citation omitted).

Noting that the two stages of the inquiry involve “overlapping scrutiny of the content of the claims,” the Federal Circuit has described “the first-stage inquiry” as “looking at the ‘focus’ of the claims, their ‘character as a whole,’” and “the second-stage inquiry (where reached)” as “looking more precisely at what the claim elements add—specifically, whether, in the Supreme Court’s terms, they identify an ‘inventive concept’ in the application of the ineligible matter to which (by assumption at stage two) the claim is directed.” *Electric Power Grp, LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). In considering whether a claim is directed to an abstract idea, we acknowledge, as did the Court in *Mayo*, that “all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” *Mayo*, 566 U.S. at 71. We, therefore, look to: (1) whether the claims focus on a specific means or method that improves the relevant technology, or (2) are directed to a result or effect that itself is the abstract idea, in which the claims merely invoke generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

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Step One: Whether the Claims Are Directed to a Patent-Ineligible Concept (Abstract Idea)

The Examiner finds that “[c]laims 61–81 are directed to the concept of managing and authorizing transactions and incentives in a retail environment using the point of sale system and a central server system, which is a fundamental economic practice as it is managing and authorizing promotions in a retail network environment.” Final Action 2. Appellants argue that the claims are not directed to an abstract idea because:

the claims are directed to interoperability among different POS systems associated with different retailers with a central database for the issuance, redemption, and reimbursement of digital incentives, and independent Claim 61 recites a message broker being added to cooperate with a given existing POS terminal to address the interoperability.

Appeal Brief 8–9.

Appellants also contend the claims are not directed to an abstract idea because:

the claims are directed to an improvement to computer functionality versus being directed to an abstract idea. More particularly, the claims are directed to the improvement in the functionality of the overall system by providing interoperability among different POS systems associated with different retailers with a central database for the issuance, redemption, and reimbursement of digital incentives.

Appeal Brief 9.

Appellants further contend “the claimed invention is directed to a method for issuance, redemption, and reimbursement of digital incentives that includes the addition of a message broker. This concept is inextricably tied to computer technology” wherein:

the claimed message broker *is a technical approach to a technical problem*, and not a business approach to a business problem. The message broker addresses *the technical problem of interoperability among different POS systems associated with different retailers with a central database for the issuance, redemption, and reimbursement of digital incentives*. This leads to significantly more than an abstract idea and not simply a method of e-coupons.

Declaration 4.¹

Appellants disclose, “[a] piece of software called a message broker **16** manages communications from the authenticated existing point-of-sale terminal **12** to the central database **10**” wherein “[t]he message broker routes the unique identifier” and “purchases made by the customer” to the central database. Specification 3, 8.

We do not find Appellants’ arguments persuasive. Our reviewing court has explained that claims directed to “the mere formation and manipulation of economic relations” and “the performance of certain financial transactions” are properly held to be directed to abstract ideas. *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat. Ass’n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014); *see also, e.g., Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 716 (Fed. Cir. 2014) (finding computer-implemented system for “using advertising as a currency [on] the Internet” to be ineligible); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1352, 1355 (Fed. Cir. 2014) (finding computer-implemented system for guaranteeing performance of an online transaction to be ineligible.); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1370 (Fed. Cir. 2011) (finding

¹ Declaration filed December 30, 2015.

computer-implemented system for “verifying the validity of a credit card transaction [] over the Internet” to be ineligible).

Also, our reviewing court has repeatedly held that information collection and analysis, including when limited to particular content, is within the realm of abstract ideas. *See, e.g., Elec. Power Grp.*, 830 F.3d at 1353 (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”); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (claims directed to collecting information and analyzing it according to certain rules were directed to an abstract idea); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d at 1370 (computer-implemented system for “verifying the validity of a credit card transaction[] over the Internet” was patent-ineligible).

We agree with the Examiner’s determination that at step one of the *Alice* analysis, the claims are directed to one or more abstract ideas. We therefore turn to the second step of the *Alice* analysis, in which we must determine whether the additional elements of the claims transform them into patent-eligible subject matter.

Step Two: Whether Additional Elements Transform the Idea into Patent-Eligible Subject Matter

Appellants argue that:

[I]f the claims can somehow be determined to be directed to an abstract idea, at least one element in the claim is sufficient to ensure that the claim amounts to significantly more than the abstract idea itself, as supported by the Rule 132 Declaration. In particular, the claimed message broker *is a technical approach to a technical problem*, and not a business approach to a business problem. The message broker addresses *the technical problem of interoperability among different POS systems associated with*

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different retailers with a central database for the issuance, redemption, and reimbursement of digital incentives. This leads to significantly more than an abstract idea as independent Claim 61 is not simply directed to a method of e-coupons.

Appeal Brief 10.

The Examiner finds:

[W]hile the claims indicate the claimed invention to be compatible with a plurality of point of sale systems associated with a plurality of merchants, the Examiner notes the claim language only states the claimed message broker to be compatible with a plurality of different POS, different retailers, and independent of loyalty programs. That is, while the claims recite these features, these features are merely intended functionality of the claimed invention as the rest of the claim does not include limitations [that] support this claimed functionality. The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the abstract idea is performed by generic computer components.

Final Action 2–3.

Appellants’ argument that the claimed invention is rooted in computer technology in order to overcome a problem specifically arising in the realm of interoperability among different POS systems associated with different retailers with a central database for the issuance is not persuasive of Examiner error because the mere application of an abstract idea on a computer system does not make a claimed invention patentable. *See Alice Corp.*, 134 S. Ct. at 2358 (“[I]f a patent’s recitation of a computer amounts to a mere instruction to ‘implemen[t]’ an abstract idea ‘on ... a computer,’ [that addition cannot impart patent eligibility.]”) (citations omitted). Appellants do not argue, nor does Appellants’ Specification state, that the claimed message broker requires specialized or improved technology.

Accordingly, we sustain the Examiner's 35 U.S.C. § 101 rejection of claims 61–81.

35 U.S.C. § 103 Rejection

Appellants argue that “[i]ndependent Claim 61 recites adding a message broker to cooperate with a given existing point-of-sale (POS) terminal in a retail environment *to provide compatibility with a central database*” and “while Byerley et al. does address the problem of incorporating additional rewards programs into existing POS systems,” “Byerley et al. fails to disclose adding a message broker to cooperate with a given existing point-of-sale (POS) terminal in a retail environment *to provide compatibility with a central database*.” Appeal Brief 13.

Appellants contend “Byerley et al. communicates with different databases or rewards programs, i.e. transaction data networks, and not a central database with operations that are independent from a plurality of different types of POS terminals and independent from [a] respective loyalty program associated with the plurality of different retailers.” Appeal Brief 14.

Appellants argue, “[a]s supported by the Rule 132 Declaration, Byerley et al. teaches away from a combination with Morioka. Byerley et al. teaches that there is no central database or central processing for all loyalty programs/POS terminals of different retailer[s].” Appeal Brief 14.

The Examiner finds that it is the combination of Fravel and Morioka that discloses “the concept of POS systems communicating with a central system to perform coupon redemption” and “although the combination does not explicitly disclose the system to be independent of loyalty programs[,] Byerley further teaches that it [was] old and well known to add modules to existing POS systems to provide network communication services.”

Answer 8 (citing Fravel, paragraph 25; Byerley, paragraph 3).

We find Appellants' arguments unpersuasive of Examiner error. The Examiner did not rely upon Byerley alone to disclose the claimed central data base. *See* Final Action 4–8. “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.” *In re Merck*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (Fed. Cir. 1981)).

We also do not find Appellants' argument that Byerley teaches away from a combination with Morioka persuasive of Examiner error because Byerley does not discourage employing a central database. “A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Kahn*, 441 F.3d 977, 990 (Fed. Cir. 2006) (citations and internal quotation marks omitted). We therefore sustain the Examiner's obviousness rejection of independent claim 61.

Appellants argue that the obviousness rejections of claims 66, 68–70, 75, 76, 78, and 80 are erroneous because of the “reasons set forth” with respect to independent claim 61. Appeal Brief 15–16. We did not find the obviousness rejection of claim 61 erroneous. Accordingly, we likewise sustain the Examiner's obviousness rejection of dependent claims 66, 68–70, 75, 76, 78, and 80, as well as claims 62–65, 67, 71–74, 77, 79, and 81, not argued separately by Appellants. *See* Appeal Brief 12–16.

DECISION

The Examiner's 35 U.S.C. § 101 rejection of claims 61–81 is affirmed.

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The Examiner's 35 U.S.C. § 103 rejections of claims 61–81 are affirmed.

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED