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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 2017-003743
Application 12/783,762
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 13–22 under 35 U.S.C. § 134(a). Appeal Brief 9-17. We have jurisdiction under 35 U.S.C. § 6(b) (2012).

We affirm.

Introduction

The invention is directed to “[a] message broker for redemption of digital incentives at a point-of-sale terminal for a commercial transaction that is able to communicate with a central database external to the point-of-sale terminal.” Abstract.

Illustrative Claim

13. A non-transitory computer readable medium comprising a message broker added to cooperate with a given existing point-of-sale (POS) terminal in a retail environment to provide compatibility with a central database connected to a communications network, 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, the computer readable medium having computer instructions stored thereon, which, when executed by a computer processor, causes the computer processor to:

receive, 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;

obtain, 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;

transmit, via the message broker, the unique customer identifier, information about the given existing POS terminal, and the information identifying the items that the customer has selected for purchase to the central database;

cause the central database to authenticate the given existing POS terminal based upon the associated identifiable attribute,

validate the unique customer identifier,

identify 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, and

transmit information about each of the applicable digital incentives to the message broker;

receive from the central database, via the message broker, information identifying the one or more applicable digital incentives; and

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

Rejections on Appeal

Claims 13–22 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to a judicial exception to patent-eligible subject matter (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. More specifically, the Examiner finds that claims 13–22 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 13, 15, 17, 18, and 20 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 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 4-15.

Claim 14 stands 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 16-18.

Claim 16 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, and Leming (US Patent Application Publication 2008/0319846 A1; published December 25, 2008). Final Action 18-20.

Claim 19 stands rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Nguyen (US Patent Application Publication 2008/0255960 A1; published October 16, 2008), and Michaelis. Final Action 20-25.

Claims 21 and 22 stand rejected under pre-AIA 35 U.S.C. § 103(a) as being unpatentable over Fravel, Byerley, James, Morioka, Nguyen, and Michaelis. Final Action 25-27.

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, 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 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.

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

The Examiner finds that “[c]laims 13–22 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. 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 13 recites a message broker added to cooperate with a given existing POS terminal to address the interoperability.” Appeal Brief 9-10.

Appellants contend the claims are not directed to an abstract idea because “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 10. Appellants contend, “the claimed invention is directed to a message broker added to cooperate with a given existing POS terminal in a retail environment to provide compatibility with a central database connected to a communications network. This concept is inextricably tied to computer technology” wherein:

[T]he 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 “the message broker routes the unique identifier and the basket list to the central database.”

Specification 2, 6.

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 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

¹ Declaration filed December 30, 2015.

certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent-ineligible concept”); *Fair Warning 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 1366, 1370 (Fed. Cir. 2011) (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 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 13 is not simply directed to a method of e-couponing.

Appeal Brief 11.

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,’ [t]hat 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 13–22.

35 U.S.C. §103 Rejection

Appellants argue that “[i]ndependent Claim 13 recites a message broker added to cooperate with a given existing point-of-sale (POS) terminal in a retail environments 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 a message broker added to cooperate with a given existing point-of-sale (POS) terminal in a retail environment to provide compatibility with a central database.” Appeal Brief 14-15. 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 the plurality of different types of POS terminals and independent from a respective loyalty program associated with the plurality of different retailers.” Appeal Brief 15. Appellants argue, “As 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 retailers.” Appeal Brief 15.

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 7–8 (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 5, 6, 10 and 11. "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 13.

Appellants argue that the obviousness rejections of claims 14, 16, 19, 21 and 22 are erroneous because of the "reasons set forth" with respect to independent claim 13. We did not find the obviousness rejection of claim 13 erroneous. Accordingly, we likewise sustain the Examiner's obviousness rejection of dependent claims 14, 16, 19, 21 and 22, as well as claims 15, 17, 18 and 20 not argued separately by Appellants. *See* Appeal Brief 13-16.

DECISION

The Examiner's 35 U.S.C. §101 rejection of claims 13–22 is affirmed.

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The Examiner's 35 U.S.C. §103 rejections of claims 13–22 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)(v).

AFFIRMED