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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/090,503	11/26/2013	Jeff Nayler	12-2916	5234
107681	7590	10/08/2019	EXAMINER	
NCR Corporation 864 Spring Street NW Atlanta, GA 30308			TINKLER, MURIEL S	
			ART UNIT	PAPER NUMBER
			3692	
			NOTIFICATION DATE	DELIVERY MODE
			10/08/2019	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* JEFF NAYLER, RICHARD PALMER and  
MICHAEL CAMACHO<sup>1</sup>

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Appeal 2018-008195  
Application 14/090,503  
Technology Center 3600

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Before ROBERT E. NAPPI, JASON V. MORGAN, and  
JOYCE CRAIG, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 1 through 3, 5 through 13, and 15 through 21. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

INVENTION

The invention is directed to a system for managing customer self-service terminals that includes a management terminal with a display

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<sup>1</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as NCR Corporation. App. Br. 2.

indicating that assistance is needed at a particular customer terminal.

Abstract. Claim 1 is illustrative of the invention and is reproduced below:

1. A system for managing customer self-service terminals, the system comprising:
  - a plurality of customer self-service terminals;
  - one or more mobile management devices each containing at least one hardware processor and a display, and each hardware processor configured to directly communicate with each of the plurality of customer self-service terminals over a wireless network, each customer self-service terminal operated by a unique customer, display representative images of each of the customer self-service terminals, and display an indication in one of the representative images that assistance is needed at a particular corresponding customer terminal of the plurality of customer self-service terminals, wherein the indication is a length of time that a particular customer has been conducting a self-service transaction, wherein the particular corresponding customer terminal is operated by the particular customer for conducting the self-service transaction and each of remaining ones of remaining customer self-service terminals operated by other customers conducting other self-service transactions, and each of the mobile management devices configured to remotely control functions of particular corresponding customer terminal when providing assistance to the particular customer.

App. Br. 14 (Claims Appendix).

## REJECTION AT ISSUE

The Examiner has rejected claims 1 through 3, 5 through 13, and 15 through 21 under 35 U.S.C. § 101 for being directed to patent-ineligible subject matter. Final Act. 3–6.<sup>2</sup>

## PRINCIPLES OF LAW

Patent-eligible subject matter is defined in 35 U.S.C. § 101 of the Patent Act, which recites:

Whoever 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.

There are, however, three judicially created exceptions to the broad categories of patent-eligible subject matter in 35 U.S.C. § 101: “[l]aws of nature, natural phenomena, and abstract ideas.” *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014); *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 70 (2012).

In determining whether a claim falls within an excluded category, we are guided by the Supreme Court’s two-step framework, described in *Mayo* and *Alice*. *Alice*, 573 U.S. at 217–18 (citing *Mayo*, 566 U.S. 66, 75–77). In accordance with that framework, we first determine what concept the claim is “directed to.” *See id.* at 219 (“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.”); *see also Bilski v. Kappos*, 561 U.S. 593, 611

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<sup>2</sup> Throughout this Opinion, we refer to the Appeal Brief, filed April 27, 2018 (“App. Br.”), the Reply Brief, filed August 13, 2018 (“Reply Br.”), the Examiner’s Answer, mailed June 12, 2018 (“Answer”), and the Final Office Action, mailed November 28, 2017 (“Final Act.”).

(2010) (“Claims 1 and 4 in petitioners’ application explain the basic concept of hedging, or protecting against risk.”).

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that a “claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 U.S. at 176; *see also id.* at 191 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws, . . . and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* at 191 (citing *Benson* and *Flook*); *see, e.g., id.* at 187 (“It is now commonplace that an *application* of a law of nature or mathematical

formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step of the *Alice* and *Mayo* framework, where “we must examine the elements of the claim to determine whether it contains an ‘inventive concept’ sufficient to ‘transform’ the claimed abstract idea into a patent-eligible application.” *Alice*, 573 U.S. at 221 (citation omitted). “A claim that recites an abstract idea must include ‘additional features’ to ensure ‘that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].’” *Id.* (quoting *Mayo*, 566 U.S. at 77). “[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention.” *Id.*

The PTO recently published revised guidance on the application of § 101. USPTO’s 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Memorandum”). Under that guidance, we first look to whether the claim is directed to a judicial exception because:

- (1) the claim recites a judicial exception, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and
- (2) the claim as a whole fails to recite additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h) (9th ed. 2018)).

Only if a claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that are not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception.

*See* Memorandum.

## ANALYSIS

### Abstract Idea.

The Examiner concludes that the claims are not patent eligible as they are directed to a judicial exception without reciting significantly more. Final Act. 4–6. Specifically, the Examiner provides an analysis of Appellant’s claims, finding that they recite limitations directed to a fundamental economic practice and collecting information, organizing it and displaying the results (a mental process). Final Act. 4–5. Further, the Examiner concludes that the claims, in addition to the abstract idea, merely recite generic components of terminals, such as automated teller machines, ticket vending machines airline checking terminals and tablet computers. Final Act. 6 (citing paras. 4, 11, and 12 of Appellant’s Specification). The Examiner states:

the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer

functionalities which are well-understood, routine and conventional activities previously known.

Final Act. 6

Appellant argues the Examiner's rejection is in error as the claims recite an improvement in technology or computer based device capabilities. App. Br. 8–10. Appellant argues that the claims are similar to those at issue in *Visual Memory LLC v. NVIDIA Co.* 867 F.3d 1253 (Fed. Cir. 2017), *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) and *Core Wireless Licensing S.A.R.L. v. LG Electronics Inc.*, 880 F.3d 1356 (Fed. Cir. 2018) where the “claims were deemed non-abstract because they provided feature function to the computers that did not exist.” App. Br. 10; Reply Br. 2–3. Appellant asserts the functionality of the claims is directed to an interface as is unambiguous from the Specification. Reply Br. 2. Further, Appellant states:

[T]he claims are not directed to the result (remote assistance); rather, the claims are specifically directed to processing and processing context that allows for identifying a customer terminal and a length of wait for said customer for assistance through displaying of a limited and specific data and remote control functions for providing customer assistance. In fact, the vast majority of all the claim language is directed to the process for how and when assistance is provided and not the effect of remote assistance.

App. Br. 11. (citing to *MCRO*). Appellant also asserts that the claims are similar to those at issue in *Enfish, LLC v Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) as they “recite a specific means or method for identifying, displaying, and performing remote customer assistance on a network of terminals and devices.” App. Br. 11. Appellant differentiates their claims from those at issue in *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d

1350 (Fed. Cir. 2016) as the claims recite an improvement in computers as tools. App. Br. 11

The Examiner determined that the claims recite steps relating to managing interpersonal activities (similar to those found abstract in *buySAFE v. Google, Inc.*, 765 F.3d 1350 (Fed. Cir. 2014)) and steps of collecting information, analyzing it delivering it to users (similar to those found abstract in *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350 (Fed. Cir. 2016) and *Affinity Labs of Texas, LLC v. Amazon.com Inc.*, 838 F.3d 1266 (Fed. Cir. 2016)). Answer 4; Final Act. 5. Further, in response to Appellant's arguments, the Examiner states that the claims are not rejected because they recite the use of generic computer technology, but because they recite an abstract idea and the use of generic computer technology to perform functions of an abstract idea does not amount to significantly more than the abstract idea. Answer 7.

We concur with the Examiner that representative claim 1 recites limitations directed to both managing interpersonal activities, which is a certain method of organizing human activities, and collecting/gathering information and analyzing it, which is a mental process because it can be performed in the human mind or practicably with pen and paper.

Claim 1 recites a system for managing self-service terminals with customers wherein management devices are configured to remotely control functions when providing assistance to a particular customer. Appellant's Specification identifies that the invention is to provide human interaction in providing assistance for certain transactions at customer self-service terminals. *See* Specification 2. Thus, the Specification supports the Examiner's finding that representative claim 1 recites managing activities of

the customer and the person providing assistance, which is a method of organizing human activity and, thus, an abstract idea.

Additionally, claim 1 recites “display representative images of each of the customer self-service terminals, and display an indication in one of the representative images that assistance is needed at a particular corresponding customer terminal of the plurality of customer self-service terminals, wherein the indication is a length of time that a particular customer has been conducting a self-service transaction”, these limitations are merely steps of gathering and displaying information (length of time a customer has been conducting a transaction). Accordingly, like the data collection and analysis in *Electric Power Group*, claim 1 recites a mental process, which is one of the categories of subject matter deemed abstract under the Memorandum. *Electric Power Group, LLC, v. Alstom S.A.*, 830 F.3d 1350, 1353-54 (Fed. Cir. 2016) (“[W]e have treated 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”); *id.* at 1353 (“[W]e have treated collected information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas.”). Thus, we concur with the Examiner that representative claim 1 recites a mental process, which is an abstract idea.

#### Practical Application of the Abstract Idea

Similarly we are not persuaded of error by Appellant’s arguments discussed above equating the claims to those at issue in *McRO*, *Core Wireless Licensing* and *Enfish*, asserting that the claims recite an improvement to the function of a computer. Initially, we note that, contrary to Appellant’s argument, claim 1 does not directly recite an interface, rather

it merely recites that information is displayed on a mobile management terminal that communicates with the self-service terminals and can remotely control the self-service terminal. In other words, the claim does not recite any interaction with the user of the mobile management terminal or the mobile terminal, just the display of data and that one terminal may remotely control the other.

Contrary to Appellant's argument on page 11 of the Appel Brief, the claim language is not directed to "the process for how and when assistance is provided." Nor does representative claim 1 recite any specific manner of displaying the data or functionality of an interface. Rather, the claim just recites displaying data, images of customer service terminals and an indication of the length of time that a customer has been conducting a self-service transaction, and that one device can control the other. The claim does not recite the functionality of how this information is used in the system. Further, the claim does not recite how the remote control functions are effectuated.<sup>3</sup>

The claim's recitation of displaying data is unlike the claimed user interface in *Core Wireless Licensing S.A.R.L. v. LG Electronics Inc.*, 880 F.3d 1356 (Fed. Cir. 2018). In *Core Wireless* the court held that claims which recited an interface were patent eligible as the claims recited specific limitations of the interface such as: an application summary that can be reached through a menu, the data being in a list and being selectable to launch an application, and additional limitations directed to the actual user interface displayed and how it functions. *Core Wireless*, 880 F.3d at 1363.

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<sup>3</sup> We note as discussed *infra*, the use of a device to remotely control a terminal is a well-known function of computers.

The court found that the claims were directed to an improved user interface and not the abstract concept of an index as the claim “limitations disclose a specific manner of displaying a limited set of information to the user, rather than using conventional user interface methods to display a generic index on a computer.” *Id.*; see also *Trading Tech v. CQG, Inc.*, 675 Fed. Appx. 1001 (Fed. Cir. 2017) (holding that a user interface with a prescribed functionality directly related the interfaces structure that is addressed to and resolves a problem in the art is the patent eligible). Here there are no limitations directed to how the user interacts with the displayed data or how the management device remotely controls the customer terminal.

Further, the claims are unlike those at issue in *McRO* and *Enfish*. In *McRO* the court reviewed claims which use “a combined order of specific rules that renders information into a specific format that is then used and applied to create desired results: a sequence of synchronized, animated characters” *McRO*, 837 F.3d at 1315. The court found that the claims did not “simply use a computer as a tool to automate conventional activity,” but instead used the computer to “perform a distinct process” that is carried out in a different way than the prior non-computer method to improve the technology of (3-D animation techniques). *See id.* at 1314–16. Here, the claims merely recite displaying data and the existence of a remote control function but do not address applying specific rules to achieve a desired result. Rather, they merely use the computers as a tool to display collected data and remotely control a terminal. In *Enfish* the invention was directed to data structure which included a very specifically defined means for configuring a logical data table that required a four-step algorithm to render the table self-referential. *Enfish*, 822 F.3d at 1336. Further, the *Enfish* court

found “the 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.” *Id.* Appellant’s claims are not directed to any improvement in the function of the computer, rather just the use of the computer to display data and remote control of a terminal.

Thus, Appellant’s arguments have not persuaded us the Examiner erred in determining that claim 1 is not directed to an improvement in technology or computer based device capabilities. Therefore, because the abstract idea is not integrated into a practical application, we conclude that the claim is directed to the judicial exception.

#### Significantly More than the Abstract Idea

The Examiner finds that the additional claimed elements (a terminal, mobile management device with processor and display) are generic computer components and do not amount to significantly more than the abstract idea. Final Act. 5–6 (citing paras. 4, 11, and 12 of Appellant’s Specification); Answer 7–8 (citing paras. 15 and 16 of Appellant’s Specification). The Examiner finds that the elements and the claimed processes they undertake are well-understood, routine and conventional and as such do not offer significantly more than the abstract idea. Final Act 6.

Appellant argues:

claim 1 recites “significantly more.” In particular, the improvements recited by claim 1 address problems that arise with existing computing processing associated with providing customer assistance during a transaction at a self-service terminal. As claimed, the method includes a specific set of processing performed for which the Examiner has been unable to recite any art rejections.

App. Br 12. Further, Appellant argues the Examiner has not provided the evidence as is required by *Berkheimer*<sup>4</sup> to show that the claim elements are a combination well understood, routine and conventional elements.

We are not persuaded of error by these arguments. Our reviewing court has stated, “within the overall step two analysis, ‘whether a claim element or combination of elements is well-understood, routine and conventional to a skilled artisan in the relevant field is a question of fact’ that ‘must be proven by clear and convincing evidence.’” *Chargepoint Inc v. SEMAConnect Inc* 920 F.3d 759, 773 (Fed Cir. 2019) (citing *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1368 (Fed. Cir. 2018)). The USPTO Memorandum of April 19, 2018<sup>5</sup>, identifies that this inquiry is to the additional elements of the claim. As discussed above, the additional elements of the claim merely recite:

- 1) A “plurality of customer service terminals,” “each of which is operated by a unique customer.” Appellant’s specification identifies these terminals as well-known terminals such as automated teller machines, vending machines, retail store self-service check out terminals or the like. *See* paras. 2, 11, and 12.
- 2) “[O]ne or more mobile management devices each containing a processor and a display,” “configured to communicate with each of the plurality of customer self-service terminals over a wireless

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<sup>4</sup> *Berkheimer v. HP, Inc.*, 881 F.3d 1360 (Fed. Cir. 2018).

<sup>5</sup> *Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (Berkheimer v. HP, Inc.)*, available at <https://www.uspto.gov/sites/default/files/documents/memo-berkheimer-20180419.PDF> (Apr. 19, 2018) (“USPTO Berkheimer Memorandum”).

network” and configured to remotely control functions of particular corresponding terminal.” Appellant’s Specification identifies these devices generically as tablet devices (i.e., known devices), and that the communication is known protocol such a Bluetooth. Specification paras. 11 and 14. Further, we note with respect to the remotely controlling the terminals, Appellant’s Specification states “[t]echnologies for carrying out a remote interaction are well known.” Specification paras. 16. Additionally we note functions such communicating between computers in a network have been held to be well-understood, routine and conventional. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (computer receives and sends information over a network).

We further note that the claim recites displaying an indication of length of time a customer has been at a terminal, i.e., the claim recites displaying data concerning time not an affirmative step of measuring time. Thus, a showing that measuring time is well known is not necessary, nonetheless, we consider it well known to monitor a length of time a person is performing a task, e.g., chess clock, shot clock (basketball), call timer on a phone. Thus, Appellant’s arguments have not persuaded us the Examiner erred in concluding representative claim 1 does not recite significantly more than the abstract idea.

In summary, Appellant’s arguments have not persuaded us of error in the Examiner’s determination that the claims are directed to an abstract idea (both managing interpersonal activities and mental processes). Further, Appellant’s arguments have not persuaded us that the Examiner erred in

finding that the claims are not: directed to an improvement in the functioning of the computer or to other technology or other technical field; directed to a particular machine; directed to performing or affecting a transformation of an article to a different state or thing; directed to using a judicial exception in some meaningful way beyond linking the exception to a particular technological environment such that the claim as a whole is more than a drafting effort to monopolize the judicial exception.

Accordingly, we sustain the Examiner's rejection of representative claim 1 and claims 2, 3, 5 through 13, and 15 through 21, grouped with claim 1, under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

#### DECISION

The Examiner's decision rejecting claims 1 through 3, 5 through 13, and 15 through 21 is affirmed.

<b>Claims Rejected</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-3, 5-13, 15-21	§ 101	1-3, 5-13, 15-21	
<b>Outcome</b>		1-3, 5-13, 15-21	

Appeal 2018-008195  
Application 14/090,503

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