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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* JAMES M. GARRETT and EUGENE MEDYNSKIY

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Appeal 2018-002465<sup>1</sup>  
Application 14/604,577<sup>2</sup>  
Technology Center 3600

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Before NINA L. MEDLOCK, KENNETH G. SCHOPFER, and  
AMEE A. SHAH *Administrative Patent Judges.*

MEDLOCK, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> Our decision references Appellants’ Appeal Brief (“App. Br.,” filed October 18, 2016) and Reply Brief (“Reply Br.,” filed January 2, 2018), and the Examiner’s Answer (“Ans.,” mailed November 3, 2017) and Final Office Action (“Final Act.,” mailed February 25, 2016).

<sup>2</sup> Appellants identify Tillster, Inc. as the real party in interest. App. Br. 4.

## CLAIMED INVENTION

Appellants' "disclosure describes systems and methods for initiating a customer order using a handheld device, processing the customer order, and closing the customer order using a system integrated with a point of sale (POS) system in a restaurant or a hospitality industry environment" (Spec. ¶ 2).

Claims 1, 11, and 20 are the independent claims on appeal. Claim 1, reproduced below with bracketed notations added, is illustrative of the claimed subject matter:

1. A customer interface system operable with a point of sale (POS) system associated with a chain of restaurants, the customer interface system comprising:

a wireless mobile computing device having a hardware processor and a computer memory, the computer memory configured to store a mobile application configured to automatically manage check-in requests;

a cloud-accessible data center configured to communicate with the restaurant chain POS system and a database of customer information for a plurality of customers remote from the wireless mobile computing device, and configured to generate and communicate queries to the remote database and comprising

an integrated customer interface module stored in a memory of a computer, wherein, when executed, the integrated customer interface module is configured to communicate data with the wireless mobile computing device, the integrated customer interface module configured to:

[(a)] receive a request from the wireless mobile computing device for a specific customer to check in;

[(b)] in response to the request, automatically create an open ticket for adding food items in the restaurant chain POS system;

[(c)] after a query to the remote database, receive information associated with the specific customer;

[(d)] send at least a portion of the specific customer information to the restaurant chain POS system; and

[(e)] add the specific customer information portion to the open ticket so that the open ticket is uniquely associated with the specific customer.

## REJECTIONS

Claims 1–20 are rejected under 35 U.S.C. § 101 as directed to patent-ineligible subject matter.

Claims 1–20 are rejected under 35 U.S.C. § 102(a)(1) as anticipated by Spirin et al. (US 8,498,900 B1, iss. July 30, 2013) (“Spirin”).

## ANALYSIS

### *Patent-Ineligible Subject Matter*

Under 35 U.S.C. § 101, 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 an implicit exception: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

The Supreme Court, in *Alice*, reiterated the two-step framework previously set forth in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.*, 566 U.S. 66 (2012), “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.*, 573 U.S. at 217. The first step in that analysis is to “determine whether the claims at issue are

directed to one of those patent-ineligible concepts.” *Id.* If the claims are not directed to a patent-ineligible concept, e.g., an abstract idea, the inquiry ends. Otherwise, the inquiry proceeds to the second step where the elements of the claims are considered “individually and ‘as an ordered combination’” to determine whether there are additional elements that “‘transform the nature of the claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 566 U.S. at 79, 78). This is “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.’” *Id.* at 217–18 (alteration in original).

Here, in rejecting the pending claims under 35 U.S.C. § 101, the Examiner determined that the claims are directed to “the concept of processing a customer order in a restaurant . . . using a system integrated with a POS [point-of-sale] system,” which the Examiner concluded is “a method of organizing human activities and an idea of itself, which is merely an abstract idea,” similar to other concepts that the courts have held abstract (Final Act. 2–3; *see also id.* at 4–5).<sup>3</sup> The Examiner also determined that the claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception, *i.e.*, that “[t]he only additional limitations in the claims is [sic] the use of well-known devices such as a wireless mobile computing device, a cloud-accessible data center, a POS system, and integrated customer interface module”; that “[a]ll of these components would require a processor and memory to perform basic

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<sup>3</sup> The Examiner also reasoned that “[t]he processing of a customer order could be done by a human analog (by hand or merely thinking)” (Final Act. 2).

computer functions that are well-understood, routine and conventional”; and that “[t]hese components, which are merely gathering, sending, and storing data, are being used to implement the abstract idea” and taken “as an ordered combination add[ ] nothing that is not already present when the elements are taken individually” (*id.* at 3, 5).

After Appellants’ briefs were filed in this appeal, and the Examiner’s Answer mailed, the USPTO published revised guidance for use by USPTO personnel in evaluating subject matter eligibility under 35 U.S.C. § 101. 2019 REVISED PATENT SUBJECT MATTER ELIGIBILITY GUIDANCE, 84 Fed. Reg. 50, 57 (Jan. 7, 2019) (the “2019 Revised Guidance”). That guidance revised the USPTO’s examination procedure with respect to the first step of the *Mayo/Alice* framework by (1) providing groupings of subject matter that are considered an abstract idea; and (2) clarifying that a claim is not “directed to” a judicial exception if the judicial exception is integrated into a practical application of that exception. *Id.* at 50. The 2019 Revised Guidance, by its terms, applies to all applications, and to all patents resulting from applications, filed before, on, or after January 7, 2019. *Id.*

*Independent Claim 1 and Dependent Claims 2–10*

The first step in the *Mayo/Alice* framework, as mentioned above, is to “determine whether the claims at issue are “directed to” a patent-ineligible concept, e.g., an abstract idea. *Alice Corp.*, 573 U.S. at 217. This first step, as set forth in the 2019 Revised Guidance (i.e., Step 2A), is a two-prong test; in Step 2A, Prong One, we look to whether the claim recites a judicial exception, e.g., one of the following three groupings of abstract ideas: (1) mathematical concepts; (2) certain methods of organizing human activity, e.g., fundamental economic principles or practices, commercial or

legal interactions; and (3) mental processes. *Id.* at 54. If so, we next consider whether the claim includes additional elements, beyond the judicial exception, “that integrate the [judicial] exception into a practical application,” i.e., that apply, rely on, or use the judicial exception in a manner that imposes a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception (“Step 2A, Prong Two”). *Id.* at 54–55. Only if the claim (1) recites a judicial exception and (2) does not integrate that exception into a practical application do we conclude that the claim is “directed to” the judicial exception, e.g., an abstract idea. As described in more detail below, we are persuaded here that the Examiner erred in determining that claim 1 is directed to an abstract idea.

The Federal Circuit has explained that “the ‘directed to’ inquiry applies a stage-one filter to claims, considered in light of the specification, based on whether ‘their character as a whole is directed to excluded subject matter.’” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)). It asks whether the focus of the claims is on a specific improvement in relevant technology or on a process that itself qualifies as an “abstract idea” for which computers are invoked merely as a tool. *See id.* at 1335–36.

The Specification here is entitled “SYSTEM AND METHOD FOR A WIRELESS MOBILE DEVICE INTERFACE INTEGRATED WITH A RESTAURANT POINT OF SALE SYSTEM AND WITH A CLOUD-ACCESSIBLE DATA CENTER FOR QUERYING A DATABASE OF CUSTOMER INFORMATION,” and states that the disclosure “describes

systems and methods for initiating a customer order using a handheld device, processing the customer order, and closing the customer order using a system integrated with a point of sale (POS) system in a restaurant or a hospitality industry environment” (Spec. ¶ 2). Describing the related technology, the Specification notes that although ordering food, drinks, and other items through a mobile or handheld device, e.g., a cell phone, may be achieved through a mobile application on the device, these mobile applications, traditionally, are not integrated with the POS systems used by restaurants (*id.* ¶ 3). Additionally, most of these applications are branded specifically for a particular restaurant or restaurant chain (*id.*). The Specification, thus, describes, that in order to use mobile functionalities offered by multiple restaurants, customers have to download multiple applications on their mobile devices and enter profile and payment information for each application (*id.*). Merchants and/or restaurants also may be required to create merchant accounts with each mobile application provider (*id.*). “The loyalty programs of the merchants and/or restaurants also do not integrate with the various mobile applications and existing POS systems used by restaurants” (*id.*).

The claimed invention is intended to address these issues by integrating a customer interface system with a restaurant POS system. Claim 1, thus, recites a customer interface system operable with a restaurant chain POS comprising, *inter alia*, a cloud-accessible data center having an integrated customer interface module that: (1) receives a customer request to check in to a restaurant, i.e., “receive[s] a request from the wireless mobile computing device for a specific customer to check in” (step (a)); (2) creates an order, i.e., an open ticket, for the customer in the restaurant POS system,

i.e., “in response to the request, automatically create[s] an open ticket for adding food items in the restaurant chain POS system” (step (b)); (3) retrieves information regarding the customer, i.e., “after a query to the remote database, receive[s] information associated with the specific customer” (step (c)); and (4) forwards the customer information to the restaurant chain POS system for use in identifying the order, i.e., “send[s] at least a portion of the specific customer information to the restaurant chain POS system” and “add[s] the specific customer information portion to the open ticket so that the open ticket is uniquely associated with the specific customer” (steps (d) and (e)).

Applying the 2019 Revised Guidance, we are persuaded that even if claim 1 recites an abstract idea, i.e., a method of organizing human activity, as the Examiner determined, claim 1 includes additional elements that integrate the abstract idea into a practical application, i.e., the claim provides a technical improvement within the field of the invention. *See* 2019 Revised Guidance, 84 Fed. Reg. at 55.

We agree with the Examiner that the additional elements recited in claim 1, beyond the abstract idea, are the claimed “wireless mobile computing device,” “cloud-accessible data center,” “restaurant chain POS system,” and “integrated customer interface module” — elements that, as the Examiner observed, are recited at a high level of generality (Final Act. 3). We also acknowledge that these elements are described in the Specification as generic components (*see, e.g.*, Spec. ¶ 24 (“The mobile device 102 could be implemented as, for example, a smartphone, a tablet computer, a personal digital assistant[ ] (PDA), a mobile phone, an electronic book reader[ ], or other wireless handheld device”); *id.* ¶ 25 (“[A] data center 104 can include

a variety of computing devices and/or services, which may include physical computing nodes, storage devices, data stores, databases, remote program execution service based computing capacities, and so forth.”); *id.* ¶ 27 (“POS systems are a well known field of technology in which a computing environment of one or more computers is used to conduct transaction.”); *id.* ¶¶ 90–100)).

But, our inquiry cannot end there. As the court explained in *BASCOM*, “an inventive concept can be found in the non-conventional and non-generic arrangement of known, conventional pieces.” *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016); *see also id.* at 1350, 1352 (holding claims patent eligible where they “recite a specific, discrete implementation of the abstract idea,” in contrast to implementing the abstract idea “on generic computer components, without providing a specific technical solution beyond simply using generic computer concepts in a conventional way”).

Here, we are persuaded that, even if “processing a customer order in a restaurant” is an abstract idea, the structural elements required to perform the functions/method steps recited in claim 1 integrate the abstract idea into a practical application. The Specification details, as described above, the various shortcomings associated with available mobile applications for ordering food, drinks, and other items, which are not integrated with restaurant POS systems. The present invention addresses these shortcomings by providing a customer interface system, including a cloud-accessible data center, which is configured to communicate data between the POS system and the user’s wireless mobile computing device. The cloud-accessible data center, thus, acts as an intermediary between the restaurant

POS system and the wireless mobile computing device to enable the integration of the mobile application loaded onto the user's device with the POS system and obviate the need for multiple applications.

We are persuaded that the combination of elements, as recited in claim 1, is addressed to, and resolves a specifically identified problem in the state of the art, similar to the claims in *BASCOM*. *Cf. Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859, 869 (Fed. Cir. 2010) (“[T]his court notes that inventions with specific applications or improvements to technologies in the marketplace are not likely to be so abstract that they override the statutory language and framework of the Patent Act.”). Claim 1, in our view, thus, provides a “functional and palpable” application within the field of the invention, *cf. Research Corp.*, 627 F.3d. at 868, i.e., a technological improvement in the integration of wireless computing devices with POS computer systems.

The Examiner has not addressed whether the claim recitations, when viewed in light of Appellants' Specification, relate to a challenge particular to the integration of wireless computing devices with POS computer systems. The Examiner instead focuses on whether the claims are simply directed to processing a customer's order in a restaurant, which “could be done by a human analog (by hand or merely thinking)” (Final Act. 2; *see also* Ans. 4).

We conclude, for the reasons set forth above, that claim 1 is not directed to an abstract idea. Therefore, we do not sustain the Examiner's rejection of claim 1 under 35 U.S.C. § 101. For the same reasons, we also do not sustain the Examiner's rejection of dependent claims 2–10.

*Independent Claims 11 and 20 and Dependent Claims 12–19*

Independent claims 11 and 20 include language substantially similar to the language of independent claim 1. We are persuaded that the Examiner erred in rejecting claims 11 and 20 under 35 U.S.C. § 101 for the same reasons set forth with respect to claim 1. Therefore, we do not sustain the Examiner’s rejection under 35 U.S.C. § 101 of independent claims 11 and 20, and claims 12–19, which depend from independent claim 11.

*Anticipation*

We are persuaded by Appellants’ argument that the Examiner erred in rejecting independent claims 1, 11, and 20 under 35 U.S.C. § 102(a)(1) at least because Spirin does not disclose “a cloud-accessible data center configured to communicate with the restaurant chain POS system . . . comprising an integrated customer interface module . . . configured to communicate data with the wireless mobile computing device,” as recited in claim 1, and similarly recited in claims 11 and 20 (App. Br. 10–12).

Spirin is directed to a method for “allowing a customer to view and at least partially pay a bill incurred in a bar or a restaurant” (Spirin, Abstract), and discloses at column 2, line 50 through column 3, line 25, cited by the Examiner (*see* Final Act. 6), that the customer operates a mobile computing device running a mobile application that communicates with the restaurant POS system. Spirin discloses that the method includes (1) receiving, via the POS system, check-in data, including payment account data, in response to the customer checking-in via the mobile application; (2) receiving, via the restaurant staff, an order from the customer and associating the order with the payment account data; (3) displaying the bill in real-time via the mobile application; and (4) receiving payment for at least a portion of a bill, in

response to the user authorizing payment via the application (*id.* at col. 2, l. 50 – col. 3, l. 25).

There is no dispute that, in the Spirin system, a mobile device directly interfaces with a POS system at a bar or restaurant for ordering food or drink items, and conducting a payment transaction. But, we find nothing in the cited portion of Spirin that discloses a separate “cloud-accessible data center” that communicates with both the “wireless mobile computing device” and the “restaurant chain POS system,” as called for in the independent claims.

We also find no such disclosure at column 6, lines 50–65, on which the Examiner also relies (Final Act. 6). There, Spirin merely discloses exemplary components of a POS system, e.g., a sensor for remote detection of the mobile device, a processor, and memory.

Responding to Appellants’ argument, the Examiner asserts in the Answer that the claims “do not teach that the cloud-accessible data center is separate nor that it comprises the integrated customer interface module,” i.e., that the cloud-accessible data center serves as a type of intermediary (Ans. 2). The Examiner, thus, maintains that “Spirin does teach that the POS system is ‘cloud-accessible’ in column 6, lines 50–65 and [does teach] a cloud-accessible data center separate from a wireless mobile computing device and the restaurant POS system in at least fig 7” (*id.*).

Claim 1 recites in pertinent part:

*a cloud-accessible data center configured to communicate with the restaurant chain POS system and a database of customer information for a plurality of customers remote from the wireless mobile computing device, and configured to generate and communicate queries to the remote database and comprising*

*an integrated customer interface module stored in a memory of a computer, wherein, when executed, the integrated customer interface module is configured to communicate data with the wireless mobile computing device.*

(Emphasis added). We agree with Appellants that it is clear from a fair reading of the claim language that the cloud-accessible data center “comprises” the claimed “integrated customer interface module” (Reply Br. 4). It also is clear, in our view, that the cloud-accessible data center is separate from both the POS system and the wireless mobile computing device, i.e., claim 1 recites that the cloud-accessible data center is configured to “communicate with the restaurant chain POS system” and comprises an integrated customer interface module configured to “communicate . . . with the wireless mobile computing device.”

We find nothing in the cited portions of Spirin, including in Figure 7, that discloses “a cloud-accessible data center configured to communicate with the restaurant chain POS system . . . comprising an integrated customer interface module . . . configured to communicate data with the wireless mobile computing device,” as recited in claim 1, and similarly recited in claims 11 and 20. Therefore, we do not sustain the Examiner’s rejection of independent claims 1, 11, and 20 under 35 U.S.C. § 102(a)(1). For the same reasons, we also do not sustain the rejection of dependent claims 2–10 and 12–19.

#### DECISION

The Examiner’s rejection of claims 1–20 under 35 U.S.C. § 101 is reversed.

Appeal 2018-002465  
Application 14/604,577

The Examiner's rejection of claims 1–20 under 35 U.S.C. § 102(a)(1)  
is reversed.

REVERSED