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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JACQUELYNN ESTES

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Appeal 2018-001774  
Application 10/363,533  
Technology Center 3600

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Before MAHSHID D. SAADAT, JOHN A. JEFFERY, and BARBARA A. PARVIS, *Administrative Patent Judges*.

JEFFERY, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> appeals under 35 U.S.C. § 134(a) from the Examiner's decision to reject claims 1–3, 5–14, 16–25, 27–29, 31, 32, 34–38, 40, 41, 43–54, and 56–63. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellant's invention redelivers undeliverable items to alternate recipients at alternate addresses according to the sender's instructions. To this end, if the item cannot be delivered to an intended first recipient, the alternate recipient's address is obtained by scanning a barcode on the item,

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<sup>1</sup> Appellant identifies the real party in interest as United States Postal Service. App. Br. 3.

and the item is routed to that alternate recipient based on the sender's instructions. *See generally* Abstract; Spec. ¶¶ 2, 5–7, 21–23, 29–34; Figs. 2, 4A. Claims 1 and 23 are illustrative:

1. A method comprising:

routing an item through a delivery system toward a first recipient at a first delivery

address obtained from a sender, wherein the item comprises a barcode;

determining that the item cannot be delivered to the first recipient at the first delivery address;

in response to determining that the item cannot be delivered to the first recipient at the first delivery address, determining whether an alternative recipient at an alternative delivery address for the item is obtainable by scanning the barcode with a barcode scanner, the alternative recipient being different from the first recipient;

if the alternative recipient at the alternative delivery address is obtainable by scanning the barcode with the barcode scanner: sending to the sender a reason why the item cannot be delivered to the first delivery address;

receiving instructions from the sender in response to the reason;  
and

routing the item through the delivery system to the alternative recipient at the alternative delivery address based on the instructions.

23. A method comprising:

routing an item through a delivery system toward a first recipient at a first delivery

address obtained from a sender, wherein the item comprises a barcode;

determining that the item cannot be delivered to the first recipient at the first delivery address;

in response to determining that the item cannot be delivered to the first recipient at the first delivery address, determining whether an alternative recipient at an alternative delivery address for the item is obtainable by scanning the barcode with a barcode scanner, the alternative recipient being different from the first recipient;

in response to determining that the alternative recipient at the alternative delivery address is obtainable by scanning the barcode with the barcode scanner: receiving payment from the sender, the payment being received by at least one of billing the sender, debiting the sender's checking account, or debiting the sender's credit card account;

sending over a communications channel to the sender a reason why the item cannot be delivered to the first recipient at the first delivery address, the sender being indicated by the code, the communications channel comprising at least one of regular mail, email, facsimile, internet, or an interactive voice response system;

receiving instructions from the sender in response to the reason, the instructions comprising at least one of an indication to treat the item as waste, an indication to return the item to the sender, or an indication of the alternative delivery address; and

routing the item through the delivery system to the alternative recipient at the alternative delivery address based on the instructions, wherein when the item is routed through the delivery system to the alternative delivery address payment is received from the sender, the payment being received by at least one of billing the sender, debiting the sender's checking account, or debiting the sender's credit card account;

in response to determining that the alternative recipient at the alternative delivery address is not obtainable by scanning the barcode with the barcode scanner:

providing auxiliary processing of the item, wherein providing auxiliary processing comprises one of treating the item as waste or returning the item to the sender.

### THE REJECTION

The Examiner rejected claims 1–3, 5–14, 16–25, 27–29, 31, 32, 34–38, 40, 41, 43–54, and 56–63 under 35 U.S.C. § 101 as directed to ineligible subject matter. Final Act. 2–4.<sup>2</sup>

### CONTENTIONS

The Examiner determines that the claims are directed to the abstract idea of rerouting items, which is said to be a method of organizing human activity based on managing relationships and transactions between people. Final Act. 3. The Examiner adds that the claims’ additional elements do not add significantly more than the abstract idea. *Id.* According to the Examiner, the claims’ additional elements merely recite, among other things, a barcode scanner that not only obtains input—an insignificant extra-solution activity—but whose barcode scanning function is also well-understood and routine, and whose high level of generality merely links the

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<sup>2</sup> Throughout this opinion, we refer to (1) the Final Rejection mailed April 7, 2017 (“Final Act.”); (2) the Appeal Brief filed September 7, 2017 (“App. Br.”); (3) the Examiner’s Answer mailed October 10, 2017 (“Ans.”); and (4) the Reply Brief filed December 11, 2017 (“Reply Br.”).

abstract idea to a particular field of use. *Id.* Based on these determinations, the Examiner concludes that the claims are ineligible under § 101. *Id.*

Appellant argues that the claimed invention is not directed to an abstract idea. App. Br. 9–31; Reply Br. 2–9. According to Appellant, the Examiner not only fails to account for the specific recited limitations that are not directed to an abstract idea, but the recited limitations also add significantly more to the purported abstract idea to render the claims eligible. *See id.*

#### ISSUE

Under § 101, has the Examiner erred in rejecting claims 1–3, 5–14, 16–25, 27–29, 31, 32, 34–38, 40, 41, 43–54, and 56–63 as directed to ineligible subject matter? This issue turns on whether the claims are directed to an abstract idea and, if so, whether recited elements—considered individually and as an ordered combination—transform the nature of the claims into a patent-eligible application of that abstract idea.

#### 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. However, the Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014).

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*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is “directed to.” *See Alice*, 573 U.S. 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 (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, 69 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making water-proof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S. (15 How.) 252, 267–68 (1854))); 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.”). That said, 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.* (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 (quotation marks and 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.*

In January 2019, the USPTO published revised guidance on the application of § 101. *See 2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 (Jan. 7, 2019) (“Guidance”). Under that guidance, we first look to whether the claim recites:

- (1) any judicial exceptions, 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) additional elements that integrate the judicial exception into a practical application (*see* MANUAL OF PATENT EXAMINING PROCEDURE (MPEP) §§ 2106.05(a)–(c), (e)–(h) (9th ed. Rev. 08.2017, Jan. 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 is not well-understood, routine, and conventional in the field (*see* MPEP § 2106.05(d)); or

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

*See* Guidance, 84 Fed. Reg. at 56.

#### ANALYSIS

*Claims 1–3, 5–14, 16–22, 24, 25, 29, 31, 32, 34–38, 40, 41, 43–54, and 56–63: Alice/Mayo Step One*

Independent claim 1 recites (1) “routing an item through a delivery system toward a first recipient at a first delivery address obtained from a sender, where the item comprises a barcode”; and (2) “in response to determining that the item cannot be delivered to the first recipient at the first delivery address, determining whether an alternative recipient at an alternative delivery address is obtainable by scanning the barcode with a barcode scanner, the alternative recipient being different from the first recipient. If so, the sender is sent “a reason why the item cannot be delivered to the first delivery address.” The claim adds that “instructions are received from the sender in response to the reason[,] and routing the item

through the delivery system to the alternative recipient at the alternative delivery address based on the instructions.”

As the Specification explains, the claimed invention redelivers otherwise undeliverable items, such as catalogs, to other recipients, thus precluding the need to return the undeliverable item to the sender who must then relabel and resend the items to alternative recipients. *See* Spec. ¶¶ 2–4. To this end, a code 120, such as a barcode, is placed on item 110 and is used to determine whether an alternative address is obtainable. Spec. ¶¶ 19, 25. According to the Specification’s paragraph 25, the barcode can be a traditional one-dimensional barcode, or, alternatively, a two-dimensional barcode that is scanned horizontally and vertically, such as “PDF417,” that is widely used for general purposes. Other known two-dimensional barcodes, such as “MAXICODE” or “DATAMATRIX” that are used for high-speed sorting and small-part manufacture, respectively, can also be used. *See* Spec. ¶ 25.

If an alternative delivery address is obtainable by scanning the barcode, the invention sends to the sender, via, for example, regular mail, email, voice mail, facsimile, the internet, or an interactive voice response system, a reason why the item cannot be delivered to the first address. Spec. ¶ 31.

Turning to claim 1, we first note that the claim recites a method and, therefore, falls within the process category of § 101. But despite falling within this statutory category, we must still determine whether the claim is directed to a judicial exception, namely an abstract idea. *See Alice*, 573 U.S. at 217. To this end, we must determine whether (1) the claim *recites* a judicial exception, and (2) fails to integrate the exception into a practical

application. *See* Guidance, 84 Fed. Reg. at 52–55. If both elements are satisfied, the claim is directed to a judicial exception under the first step of the *Alice/Mayo* test. *See id.*

In the rejection, the Examiner determines that claim 1 is directed to the abstract idea of rerouting items—a concept that organizes human activity based on managing relationships and transactions between people. Final Act. 3. To determine whether a claim recites an abstract idea, we (1) identify the claim’s specific limitations that recite an abstract idea, and (2) determine whether the identified limitations fall within certain subject matter groupings, namely (a) mathematical concepts<sup>3</sup>; (b) certain methods of organizing human activity<sup>4</sup>; or (c) mental processes.<sup>5</sup>

Here, apart from scanning an item’s barcode with a barcode scanner, every limitation of claim 1 recites an abstract idea, namely organizing human activity, by rerouting undeliverable items to an alternate destination according to the sender’s instructions. This sender-approved rerouting to ensure delivery—a rerouting that, apart from the scanner, does not require a

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<sup>3</sup> Mathematical concepts include mathematical relationships, mathematical formulas or equations, and mathematical calculations. *See* Guidance, 84 Fed. Reg. at 52.

<sup>4</sup> Certain methods of organizing human activity include fundamental economic principles or practices (including hedging, insurance, mitigating risk); commercial or legal interactions (including agreements in the form of contracts; legal obligations; advertising, marketing or sales activities or behaviors; business relations); managing personal behavior or relationships or interactions between people (including social activities, teaching, and following rules or instructions). *See* Guidance, 84 Fed. Reg. at 52.

<sup>5</sup> Mental processes are concepts performed in the human mind including an observation, evaluation, judgment, or opinion. *See* Guidance, 84 Fed. Reg. at 52.

machine, let alone a particular machine, to implement—fits squarely within the human activity organization category of the agency’s guidelines. *See* Guidance, 84 Fed. Reg. at 52 (listing exemplary methods of organizing human activity including (1) commercial interactions, and (2) managing interactions between people including following rules or instructions).

In addition, determining whether an item cannot be delivered to the first recipient at the first address as claimed falls within the mental processes category of the agency’s guidelines, as does determining whether an alternative recipient at an alternative address is obtainable apart from the latter determination being made by scanning a barcode. *See id.* (listing exemplary mental processes). *Accord Return Mail, Inc. v. United States Postal Service*, 868 F.3d 1350, 1368 (Fed. Cir. 2017) (noting that encoding and deciding mail recipient information—including whether the sender wants a corrected address—are processes that can, and have been, performed in the human mind).

Although claim 1 recites an abstract idea based on these methods of organizing human activity and mental processes, we nevertheless must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Guidance, 84 Fed. Reg. at 54–55. To this end, we (1) identify whether there are any additional recited elements beyond the abstract idea, and (2) evaluate those elements individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Here, scanning an item's barcode with a barcode scanner is the only recited element beyond the abstract idea, but this additional element does not integrate the abstract idea into a practical application when reading claim 1 as a whole. First, we are not persuaded that the claimed invention improves the computer or its components' functionality or efficiency, or otherwise changes the way those devices function.

The court's decision in *Return Mail, Inc. v. United States Postal Service* 868 F.3d 1350 (Fed. Cir. 2017) is particularly relevant here. There, the court held ineligible a claim reciting a method for processing undeliverable mail items including, among other things, (1) receiving items from a sender, where each item included a written addressee and encoded data indicating whether the sender wanted a corrected address to be provided for the addressee; (2) identifying items returned after mailing as undeliverable; (3) decoding the encoded data incorporated in at least one of the undeliverable mail items; (4) creating output data that included a customer number of the sender and at least a portion of the decoded data; and (5) determining the sender wanted a corrected address provided for intended recipients based on the decoded data. *Return Mail*, 868 F.3d at 1367. The claim also recited that if the sender wanted to provide a corrected address, information was electronically transferred to the sender for the identified intended recipients to enable the sender to update the sender's mailing address files. *Id.* But if the sender did not want to provide a corrected address, the claim added that return mail data records were posted on a network to enable the sender to access the records. *Id.*

In reaching its ineligibility conclusion, the court in *Return Mail* held that (1) receiving mail items from a sender; (2) identifying undeliverable

items; (3) decoding the undeliverable items' encoded data; and (4) creating output data that included, among other things, at least part of the encoded data were directed to an abstract idea. *Id.* at 1368. The court emphasized that encoding and decoding mail recipient information—including whether the sender wants a corrected address—are processes that can, and have been, performed in the human mind. *Id.* Notably, the court held that the claims simply recite that existing business practice with the benefit of generic computing technology. *Id.*

That is the case here. To the extent that Appellant contends that the claims at issue here are eligible because they differ from those in *Return Mail* (see Reply Br. 6–8), we find such an argument unavailing. According to Appellant, the claimed invention here is not limited to collecting, recognizing, and storing data as in *Return Mail*, but rather recites taking certain actions based on the data. Reply Br. 7–8. But as noted previously, these actions, namely (1) sending a reason why the item cannot be delivered to the sender, (2) receiving instructions from the sender responsive to this reason; and (3) routing the item to the alternative recipient at the alternative address, fall squarely within the methods of organizing human activity category under the agency's guidelines, including (1) commercial interactions, and (2) managing interactions between people including following rules or instructions, and therefore, recite an abstract idea. *See Guidance*, 84 Fed. Reg. at 52.

Notably, the court in *Return Mail* held that the claimed invention in that case did not improve the functioning of the *computer or the barcode system itself*, but rather applied those functionalities in the context of processing returned mail—the very application at issue here. *See Return*

*Mail*, 868 F.3d at 1369. This holding only underscores that claim 1’s additional element, namely scanning an item’s barcode with a barcode scanner, does not integrate the abstract idea into a practical application. *See* Guidance, 84 Fed. Reg. at 54–55. *Accord Content Extraction & Transmission LLC v. Wells Fargo*, 776 F.3d 1343, 1345–49 (Fed. Cir. 2014) (holding ineligible claims reciting a method of (1) extracting data from hard copy documents using an automated digitizing unit such as a scanner; (2) recognizing specific information from the extracted data; and (3) storing that information in memory).

Appellant’s reliance on *Enfish LLC v. Microsoft Corporation*, 822 F.3d 1327 (Fed. Cir. 2016) (App. Br. 11–15) is unavailing. The claimed self-referential table in *Enfish* was a specific type of data structure designed to improve the way a computer stores and retrieves data in memory. *Enfish*, 822 F.3d at 1339. To the extent Appellant contends that the claimed invention uses such a data structure to improve a computer’s functionality or efficiency, or otherwise change the way that device functions (*see* App. Br. 11–15), there is no persuasive evidence on this record to substantiate such a contention.

Appellant’s additional reliance on *Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016) (App. Br. 12–14) is likewise unavailing. There, the court held that a claim directed to using accounting information with which a network accounting record is correlated to *enhance* the record was held eligible because the claim involved an *unconventional* technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases). Although the court recognized that this

solution used generic components, the recited enhancing function necessarily required these generic components to operate in an *unconventional* manner to achieve an improvement in computer functionality. *Id.* at 1300–01. Notably, the recited enhancement in *Amdocs* depended on not only the network’s distributed architecture, but also on the network devices and “gatherers” working together in a distributed environment. *Id.* at 1301. In reaching its eligibility conclusion, the court noted the patent’s emphasis on the drawbacks of previous systems where all network information flowed to one location making it very difficult to keep up with massive record flows from network devices and requiring huge databases. *Id.* at 1300. The court also noted similar network-based drawbacks that were overcome by similar unconventional distributed solutions in other patents at issue. *See id.* at 1305–06.

That is not the case here. Although the claimed invention uses conventional computing components that receive and process data, there is no persuasive evidence on this record to show that these generic components operate in an *unconventional* manner to achieve an improvement in computer functionality as in *Amdocs*.

Appellant’s reliance on *McRO, Inc. v. Bandai Namco Games America, Inc.*, 837 F.3d 1299 (Fed. Cir. 2016) (App. Br. 19–23; Reply Br. 8–9) is unavailing. There, the claimed process used a combined order of specific rules that rendered information in a specific format that was applied to create a sequence of synchronized, animated characters. *McRO*, 837 F.3d at 1315. Notably, the recited process *automatically animated characters* using particular information and techniques—an improvement over manual

three-dimensional animation techniques that was not directed to an abstract idea. *Id.* at 1316.

But unlike the claimed invention in *McRO* that improved how the physical display operated to produce better quality images, the claimed invention here merely uses generic computing components to reroute undeliverable items to an alternate destination according to the sender's instructions—a generic computer implementation that is not only directed to fundamental human activity organization and mental processes, but also does not improve a display mechanism as was the case in *McRO*. *See SAP Am. v. InvestPic, LLC*, 898 F.3d 1161, 1167 (Fed. Cir. 2018) (distinguishing *McRO*). Although the claimed invention requires computer components, it is the incorporation of those components—not a claimed rule—that purportedly improves the existing process. *Cf. FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1095 (Fed. Cir. 2016). In short, the claimed invention does not focus on improving computers as tools, but rather certain independently abstract ideas that use computers as tools. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1354 (Fed. Cir. 2016).

Therefore, we do not find that the claim recites additional elements improving (1) the computer itself, or (2) another technology or technical field. *See Guidance*, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(a)). Rather, the above-noted additional element merely (1) applies the abstract idea on a computer; (2) includes instructions to implement the abstract idea on a computer; or (3) uses the computer as a tool to perform the abstract idea. *See Guidance*, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(f)).

Similar to the method for processing undeliverable mail in *Return Mail*, the claimed invention here is not directed to specific improvements in the way computers and networks carry out their basic functions, but rather merely uses generic computing components, including a barcode scanner, to reroute undeliverable items to an alternate destination according to the sender's instructions. The recited additional element does not, therefore, integrate the abstract idea into a practical application.

In conclusion, although the recited functions may be beneficial by rerouting undelivered mail to an alternate destination consistent with the sender's instructions, a claim for a useful or beneficial abstract idea is still an abstract idea. *See Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379–80 (Fed. Cir. 2015).

We, therefore, agree with the Examiner that claim 1 is directed to an abstract idea.

*Claims 1–3, 5–14, 16–22, 24, 25, 29, 31, 32, 34–38, 40, 41, 43–54,  
and 56–63: Alice/Mayo Step Two*

Turning to *Alice/Mayo* step two, claim 1's additional recited element, namely “scanning the bar code with a bar code scanner”—considered individually and as an ordered combination—does not provide an inventive concept such that this additional element amounts to significantly more than the abstract idea. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56. As noted above, the claimed invention merely uses generic computing components to implement the recited abstract idea.

To the extent that Appellant contends that the recited limitations, including routing the item through a delivery system toward a first recipient,

determining item undeliverability, sending a reason why the item is undeliverable to the sender, and routing the item to the alternate address based on instructions received from the sender add significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two (see App. Br. 24–31; Reply Br. 9), these limitations are not *additional* elements *beyond* the abstract idea, but rather are directed to the abstract idea as noted previously. See Guidance, 84 Fed. Reg. at 56 (instructing that *additional* recited element(s) should be evaluated in *Alice/Mayo* step two to determine whether they (1) *add* specific limitation(s) that are not well-understood, routine, and conventional in the field, or (2) simply *append* well-understood, routine, and conventional activities previously known to the industry (citing MPEP § 2106.05(d)).

Rather, scanning an item’s barcode with a barcode scanner is the additional recited element whose generic computing functionality is well-understood, routine, and conventional. *Accord* Final Act. 3 (finding that scanning a barcode is a well-understood and routine operation); *Return Mail*, 868 F.3d at 1369 (noting that claimed invention did not improve the functioning of the *computer or barcode system* itself); *Content Extraction*, 776 F.3d at 1348 (noting that using a scanner or other digitizing device to extract data from a document was well-known at the time of filing, as was the ability of computers to translate the shapes on a physical page into typeface characters). That paragraph 25 of Appellant’s Specification notes that the barcode in the disclosed invention can be a *traditional* one-dimensional barcode, or, alternatively, a two-dimensional barcode, such as “PDF417,” that is *widely used* for general purposes only underscores that scanning an item’s barcode with a barcode scanner is generic computing

functionality that is well-understood, routine, and conventional. Appellant’s arguments in this regard (*see* App. Br. 24–31; Reply Br. 9) are, therefore, unpersuasive.

Appellant’s reliance on the decision in *BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016) (App. Br. 24–31) is unavailing. There, the court held eligible claims directed to a technology-based solution to filter Internet content that overcame existing problems with other Internet filtering systems by making a known filtering solution—namely a “one-size-fits-all” filter at an Internet Service Provider (ISP)—more dynamic and efficient via individualized filtering at the ISP. *BASCOM*, 827 F.3d at 1351. Notably, this customizable filtering solution improved the computer system’s performance and, therefore, was patent-eligible. *See id.*

But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea as noted previously.

In conclusion, we do not find that the additional recited element—considered individually and as an ordered combination—adds significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56. Therefore, we are not persuaded that the Examiner erred in rejecting claim 1, and claims 2, 3, 5–14, 16–22, 24, 25, 29, 31, 32, 34–38, 40, 41, 43–54, and 56–63 not argued separately with particularity.

*Claims 23, 27, and 28: Alice/Mayo Step One*

Independent claim 23 recites limitations similar to those in claim 1, but adds that, “in response to determining that the alternative recipient at the alternative delivery address is obtainable by scanning the bar code,” “receiving payment from the sender by billing the sender, debiting the sender’s checking account, or debiting the senders’ credit card account.” Claim 23 also adds “sending over a communications channel to the sender a reason why the item cannot be delivered to the first recipient at the first delivery address, the sender being indicated by the code, the channel comprising at least one of regular mail, e-mail, facsimile, internet, or an interactive voice response system.” In addition, the claim recites that the received sender’s instructions comprise “at least one of an indication to treat the item as waste, an indication to return the item to the sender or an indication of the alternative delivery address.” Claim 23 also recites that “when the item is routed through the delivery system to the alternative delivery address[,] payment is received from the sender . . . by at least one of billing the sender, debiting the sender’s checking account, or debiting the sender’s credit card account.” The claim also adds that, “in response to determining that the alternative recipient at the alternative delivery address is not obtainable by scanning the bar code with the bar code scanner[,] providing auxiliary processing of the item” by either “treating the item as waste or returning the item to the sender.”

Apart from (1) “scanning the bar code with a bar code scanner,” and (2) “the communications channel comprising at least one of regular mail, e-mail, facsimile, internet, or an interactive voice response system,” every limitation of claim 23 recites an abstract idea, namely (1) certain methods of

organizing human activity, including commercial interactions and managing interactions between people including following rules or instructions, and (2) mental processes, by (a) rerouting undeliverable items to an alternate destination according to the sender's instructions in return for payment, or (b) providing "auxiliary processing" by treating the item as waste or returning it to the sender if the alternative recipient at the alternative address is unobtainable. Neither this sender-approved rerouting to ensure delivery nor this "auxiliary processing" requires a machine, let alone a particular machine, to implement apart from the scanner.

Notably, the communications channel comprises *at least one of* regular mail, e-mail, facsimile, internet, or an interactive voice response system. Our emphasis underscores that the claim requires only one of these options, one of which is *regular mail*—an option that does not even require a computer. Nevertheless, even if the claim required the other types of communication channels (which it does not), these particular types of channels are elements in addition to the abstract idea that do not integrate the abstract idea into a practical application as noted below.

As with claim 1, apart from the above-noted additional elements, claim 23's limitations fit squarely within the human activity organization category of the agency's guidelines, including (1) commercial interactions, and (2) managing interactions between people including following rules or instructions. *See* Guidance, 84 Fed. Reg. at 52. We reach the same conclusion for the limitations reciting how payment is received from the sender, namely by billing the sender or debiting the sender's checking or credit card account—financial transactions that occur in everyday commerce when buying goods and services. *Cf. Smartflash LLC v. Apple Inc.*, 680 F.

App'x 977, 979–84 (Fed. Cir. 2017) (unpublished) (holding ineligible a claim directed to the abstract idea of conditioning and controlling access to data based on payment); *In re Salwan*, 681 F. App'x 938, 938–40 (Fed. Cir. 2017) (unpublished) (holding ineligible a claim reciting transferring patient health information via a network, where the system used billing software to calculate a patient's bill based on medical records and insurance information, as directed to the abstract idea of billing insurance companies and organizing patient health information).

In addition, determining whether an item cannot be delivered to the first recipient at the first address as claimed falls within the mental processes category of the agency's guidelines, as does determining whether an alternative recipient at an alternative address is obtainable (or not) apart from the latter determination being made by scanning a barcode. *See* Guidance, 84 Fed. Reg. at 52 (listing exemplary mental processes). *Accord Return Mail*, 868 F.3d at 1368 (noting that encoding and deciding mail recipient information—including whether the sender wants a corrected address—are processes that can, and have been, performed in the human mind).

Although claim 23 recites an abstract idea based on these methods of organizing human activity and mental processes, we nevertheless must still determine whether the abstract idea is integrated into a practical application, namely whether the claim applies, relies on, or uses the abstract idea in a manner that imposes a meaningful limit on the abstract idea, such that the claim is more than a drafting effort designed to monopolize the abstract idea. *See* Guidance, 84 Fed. Reg. at 54–55. To this end, we (1) identify whether there are any additional recited elements beyond the abstract idea, and

(2) evaluate those elements individually and collectively to determine whether they integrate the exception into a practical application. *See id.*

Here, (1) “scanning the barcode with a bar code scanner,” and (2) “the communications channel comprising at least one of regular mail, e-mail, facsimile, internet, or an interactive voice response system” are the only recited elements beyond the abstract idea, but these additional elements do not integrate the abstract idea into a practical application when reading claim 23 as a whole. First, we are not persuaded that the claimed invention improves the computer or its components’ functionality or efficiency, or otherwise changes the way those devices function.

As with claim 1, the court’s holding in *Return Mail* is likewise relevant to claim 23. *See Return Mail*, 868 F.3d at 1369. As noted previously, the court in *Return Mail* held that the claimed invention in that case did not improve the functioning of the *computer or the barcode system itself*, but rather applied those functionalities in the context of processing returned mail—the very application at issue here. *See Return Mail*, 868 F.3d at 1369. This holding only underscores that claim 23’s additional elements, namely (1) scanning an item’s barcode with a barcode scanner, and (2) the communications channel comprising at least one of regular mail, e-mail, facsimile, internet, or an interactive voice response system, do not integrate the abstract idea into a practical application. *See Guidance*, 84 Fed. Reg. at 54–55. *Accord Content Extraction*, 776 F.3d at 1345–49 (holding ineligible claims reciting a method of (1) extracting data from hard copy documents using an automated digitizing unit such as a scanner; (2) recognizing specific information from the extracted data; and (3) storing that information in memory).

Unlike the claimed invention in *McRO* that improved how the physical display operated to produce better quality images, the claimed invention here merely uses generic computing components to reroute undeliverable items to an alternate destination according to the sender's instructions—a generic computer implementation that is not only directed to fundamental human activity organization and mental processes, but also does not improve a display mechanism as was the case in *McRO*. *See SAP*, 898 F.3d at 1167 (distinguishing *McRO*). Although the claimed invention requires computer components, it is the incorporation of those components—not a claimed rule—that purportedly improves the existing process. *Cf. FairWarning*, 839 F.3d at 1095. In short, the claimed invention does not focus on improving computers as tools, but rather certain independently abstract ideas that use computers as tools. *See Elec. Power*, 830 F.3d at 1354.

Therefore, we do not find that the claim recites additional elements improving (1) the computer itself, or (2) another technology or technical field. *See Guidance*, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(a)). Rather, the above-noted additional elements merely (1) apply the abstract idea on a computer; (2) include instructions to implement the abstract idea on a computer; or (3) use the computer as a tool to perform the abstract idea. *See Guidance*, 84 Fed. Reg. at 55 (citing MPEP § 2106.05(f)).

Similar to the method for processing undeliverable mail in *Return Mail*, the claimed invention here is not directed to specific improvements in the way computers and networks carry out their basic functions, but rather merely uses generic computing components, including a barcode scanner and a communications channel, to (1) notify the sender why the item cannot

be delivered to the first recipient, and (2) reroute undeliverable items to an alternate destination according to the sender's instructions in return for payment. The recited additional elements do not, therefore, integrate the abstract idea into a practical application.

In conclusion, although the recited functions may be beneficial by rerouting undelivered mail to an alternate destination consistent with the sender's instructions, a claim for a useful or beneficial abstract idea is still an abstract idea. *See Ariosa*, 788 F.3d at 1379–80.

We, therefore, agree with the Examiner that claim 23 is directed to an abstract idea.

*Claims 23, 27, and 28: Alice/Mayo Step Two*

Turning to *Alice/Mayo* step two, claim 23's additional recited elements, namely (1) "scanning the barcode with a barcode scanner"; and (2) "the communications channel comprising at least one of regular mail, e-mail, facsimile, internet, or an interactive voice response system"—considered individually and as an ordered combination—do not provide an inventive concept such that these additional elements amount to significantly more than the abstract idea. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56. As noted above, the claimed invention merely uses generic computing components to implement the recited abstract idea.

To the extent that Appellant contends that the recited limitations, including routing the item through a delivery system toward a first recipient, determining item undeliverability, sending a reason why the item is undeliverable to the sender, and routing the item to the alternate address based on instructions received from the sender in return for payment, and

auxiliary processing add significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two (*see* App. Br. 15–18, 22; Reply Br. 9), these limitations are not *additional* elements *beyond* the abstract idea, but rather are directed to the abstract idea as noted previously. *See* Guidance, 84 Fed. Reg. at 56 (instructing that *additional* recited elements should be evaluated in *Alice/Mayo* step two to determine whether they (1) *add* specific limitations that are not well-understood, routine, and conventional in the field, or (2) simply *append* well-understood, routine, and conventional activities previously known to the industry (citing MPEP § 2106.05(d)).

Rather, scanning an item’s barcode with a barcode scanner and the recited communications channel are the additional recited elements whose generic computing functionality is well-understood, routine, and conventional. *Accord* Final Act. 3 (finding that scanning a barcode is a well-understood and routine operation); *Return Mail*, 868 F.3d at 1369 (noting that claimed invention did not improve the functioning of the *computer or barcode system* itself); *Content Extraction*, 776 F.3d at 1348 (noting that using a scanner or other digitizing device to extract data from a document was well-known at the time of filing, as was the ability of computers to translate the shapes on a physical page into typeface characters). That paragraph 25 of Appellant’s Specification notes that the barcode in the disclosed invention can be a *traditional* one-dimensional barcode, or, alternatively, a two-dimensional barcode, such as “PDF417,” that is *widely used* for general purposes only underscores that scanning an item’s barcode with a barcode scanner is generic computing functionality that is well-understood, routine, and conventional. We reach a similar conclusion

regarding the recited communications channel whose modes of communication are well-understood, routine, and conventional. *See, e.g., Return Mail*, 868 F.3d at 1354–55, 1367–70 (discussing communicating via regular mail and the Internet). Appellant’s arguments in this regard (*see* App. Br. 24–31; Reply Br. 9) are, therefore, unpersuasive.

Appellant’s reliance on the decision in *BASCOM* (App. Br. 24–31) is unavailing. There, the court held eligible claims directed to a technology-based solution to filter Internet content that overcame existing problems with other Internet filtering systems by making a known filtering solution—namely a “one-size-fits-all” filter at an Internet Service Provider (ISP)—more dynamic and efficient via individualized filtering at the ISP. *BASCOM*, 827 F.3d at 1351. Notably, this customizable filtering solution improved the computer system’s performance and, therefore, was patent-eligible. *See id.*

But unlike the filtering system improvements in *BASCOM* that added significantly more to the abstract idea in that case, the claimed invention here uses generic computing components to implement an abstract idea as noted previously.

In conclusion, we do not find that the additional recited elements—considered individually and as an ordered combination—add significantly more to the abstract idea to provide an inventive concept under *Alice/Mayo* step two. *See Alice*, 573 U.S. at 221; *see also* Guidance, 84 Fed. Reg. at 56. Therefore, we are not persuaded that the Examiner erred in rejecting claim 23, and claims 27 and 28 not argued separately with particularity.

CONCLUSION

The Examiner did not err in rejecting claims 1–3, 5–14, 16–25, 27–29, 31, 32, 34–38, 40, 41, 43–54, and 56–63 under § 101.

DECISION

We affirm the Examiner’s decision to reject claims 1–3, 5–14, 16–25, 27–29, 31, 32, 34–38, 40, 41, 43–54, and 56–63.

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