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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* DONNA K. BYRON,  
DUKE CHANG,  
ALEXANDER PIKOVSKY, and  
TIMOTHY WINKLER

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Appeal 2020–001592  
Application 14/283,643  
Technology Center 3600

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Before MURRIEL E. CRAWFORD, HUBERT C. LORIN, and  
MICHAEL C. ASTORINO, *Administrative Patent Judges*.

LORIN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner’s final decision to reject claims 11–20.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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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 International Business Machines Corporation as the real party in interest. Appeal Br. 2.

### CLAIMED SUBJECT MATTER

The claimed subject matter “relates generally to a system, and computer program product for improving customer satisfaction. More particularly, the present invention relates to a system, and computer program product for minimizing undesirable user responses in automated business processes.” (Spec. para. 1). Claim 11, reproduced below with emphasis added, is illustrative of the claimed subject matter:

11. A computer usable program product comprising a computer usable storage device including computer usable code for minimizing undesirable user responses in automated business processes, the computer usable code when executed by a processor cause operations of a method to be performed, the method comprising:

identifying, using a processor and a memory, a user response in an interaction between a user and an automated business process during a present transaction;

determining, using sentiment analysis, that the user response comprises an undesirable response based on an undesirable emotional state of the user, wherein determining that the user response comprises an undesirable response is based on a plurality of users providing a plurality of responses in a plurality of interactions with the automated business process during previous transactions that exceed a threshold amount of undesirable responses;

selecting a modification of the automated business process, wherein the modification causes a change in the automated business process to reduce subsequent undesirable responses in the automated business process below the threshold amount, wherein the change applies to the user, and wherein the change comprises removing a step from the automated business process and modifying a timeline of a future portion of the present transaction; and

applying the modification to the automated business process to cause the change in a future portion of the interaction.

## REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Naik	US 9,549,065 B1	Jan. 17, 2017
Mintz	US 2010/0161604 A1	June 24, 2010
Hakkani-Tur	US 2011/0172999 A1	July 14, 2011
Kalns	US 2014/0310001 A1	Oct. 16, 2014
Fitterer	US 2014/0316765 A1	Oct. 23, 2014

## REJECTIONS

Claims 11–20 are provisionally rejected on the ground of nonstatutory double patenting over claims 1–10 of copending Application No. 14/332,609.

Claims 11–20 are rejected under 35 U.S.C. § 101 as being directed to judicially-expected subject matter.

Claims 11–16 and 18–20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, and Kalns.

Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, Kalns, and Hakkani-Tur.

## OPINION

*The rejection of claims 11–20 are provisionally rejected on the ground of nonstatutory double patenting over claims 1–10 of copending Application No. 14/332,609.*

The rejection is set forth on page 5 of the Non-Final Action and appears to be pending. We do not see that Appellant has addressed it. Accordingly, it is summarily affirmed.

*The rejection of claims 11–20 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter.*

The Appellant argues these claims as a group. *See* Appeal Br. 9–13. We select claim 11 as the representative claim for this group, and the remaining claims 12–20 stand or fall with claim 11. *See* 37 C.F.R. § 41.37(c)(1)(iv).

35 U.S.C. § 101 provides that “[w]hoever 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.”

In that regard, claim 11 covers a “manufacture” and is thus statutory subject matter for which a patent may be obtained.<sup>2</sup> This is not in dispute.

However, the 35 U.S.C. § 101 provision “contains an important implicit exception: Laws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 216 (2014) (quoting *Ass’n for Molecular Pathology v. Myriad Genetics, Inc.*, 569 U.S. 576, 589 (2013)).

In that regard, notwithstanding claim 11 covers statutory subject matter, the Examiner has raised a question of patent eligibility on the ground that claim 11 is directed to an abstract idea.

*Alice* identifies a two-step framework for determining whether claimed subject matter is directed to an abstract idea. *Alice*, 573 U.S. at 217. *Alice* step one — the “directed to” inquiry:

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<sup>2</sup> This corresponds to Step 1 of the 2019 Revised 101 Guidance which requires determining whether “the claim is to a statutory category.” 84 Fed. Reg. at 53. *See also id.* at 53–54 (“consider[] whether the claimed subject matter falls within the four statutory categories of patentable subject matter identified by 35 U.S.C. 101.”).

According to *Alice* step one, “[w]e must first determine whether the claims at issue are *directed to* a patent-ineligible concept.” *Alice*, 573 U.S. at 218 (emphasis added).

*The Abstract Idea*<sup>3</sup>

The Examiner determined, *inter alia*, that claim 11 “is directed to the abstract idea of improving customer satisfaction and minimizing undesirable user responses.” Non-Final Act. 7. According to the Examiner, “improving customer satisfaction and minimizing undesirable user responses” falls within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas set forth in the 2019 Revised 101 Guidance.<sup>4</sup> *Id.* at 3 (“Examiner reasonably interprets that claim 11 is directed to methods of organizing human activity.”)

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<sup>3</sup> This corresponds to Step 2A of the 2019 Revised 101 Guidance. Step 2A determines “whether a claim is ‘directed to’ a judicial exception,” such as an abstract idea. Step 2A is two prong inquiry.

<sup>4</sup> This corresponds to Prong One [“Evaluate Whether the Claim Recites a Judicial Exception”] (b) of Step 2A of the 2019 Revised 101 Guidance. “To determine whether a claim recites an abstract idea in Prong One, examiners are now to: . . . (b) determine whether the identified limitation(s) falls within the subject matter groupings of abstract ideas enumerated in Section 1 of the [2019 Revised 101 Guidance].” 84 Fed. Reg. at 54. This case implicates subject matter grouping “(b):” “(b) Certain methods of organizing human activity—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).” *Id.* at 52.

We have carefully reviewed the Briefs but do not see that the Appellant has explicitly disputed the Examiner’s characterization of what claim 11 is directed to.

According to Appellant, “Claim 11 is not directed to any of the listed economic practices or commercial or legal interactions, in particular managing interactions between **people**, but is instead directed to minimizing undesirable user responses in **automated** business processes.” Appeal Br.

10. Appellant explains that

determining that the user response comprises an undesirable response is based on a plurality of users providing a plurality of responses in a plurality of interactions with the **automated business process** during previous transactions, not interactions between **people**. Therefore, claim 11 cannot properly be considered as falling under the methods of organizing human activity grouping of the *Guidance* [ ].

*Id.* at 11. “Appellants submit that claim 11 does not fall within any of [the] three groupings of subject matter [identified in the 2019 Revised 101 Guidance].” *Id.* at 10. *See also* Reply Br. 2–4.

As we understand it, Appellant is presenting a characterization of what claim 11 is directed to (i.e., “minimizing undesirable user responses in automated business processes” (Appeal Br. 10)) that is more specific than that of the Examiner (“improving customer satisfaction and minimizing undesirable user responses” (Non–Final Act. 7) and, based on that more specific characterization, arguing that claim 11 is not directed to an abstract idea that falls within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas set forth in the 2019 Revised 101 Guidance as the Examiner alleges because, unlike the Examiner’s

characterization, Appellant’s characterization is not directed to “interactions between people” (Appeal Br. 11).

We have reviewed the 2019 Revised 101 Guidance and do not see there a distinction being made between “interactions between people” and “automated business processes,” in that only the former fall within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas.

In footnote 13, the Guidance lists numerous decisions where the claimed subject matter at issue is characterized by the court as abstract ideas and which the Guidance includes as “[c]ertain methods of organizing human activity.” For example, the Guidance cites *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1376 (Fed. Cir. 2017). The claims there at issue were directed to “local processing of payments for remotely purchased goods.” Here is one of the claims that was at issue:

8. A method of processing a payment for a purchase of goods, comprising the steps of:
  - receiving at a point-of-sale system a code relating to a purchase of goods;
  - determining if said code relates to a local order or to a remote order from a remote seller;
  - if said code relates to a remote order, then determining a price for said remote order, receiving a payment for said remote order, and transmitting to said remote seller data indicating that said payment has been received for said remote order.

This is similar to the claims here on appeal in that here user responses in automated business processes are processed to minimize undesirable use responses. Accordingly, we do not see the Guidance limiting the “[c]ertain



methods of organizing human activity” grouping to “interactions between people” as Appellant argues.

Furthermore<sup>5</sup>, when we consider the claim as a whole<sup>6</sup> giving it the broadest reasonable construction<sup>7</sup> as one of ordinary skill in the art would have interpreted it in light of the Specification<sup>8</sup> at the time of filing, we find that it is reasonable to characterize the claim as being directed to minimizing undesirable user responses in a business process that is automated via generic computing devices as Appellant has done.

However, Appellant’s characterization of what the claim is directed to is similar to that of the Examiner’s, albeit the Appellant’s characterization is described at a somewhat lower level of abstraction. Nevertheless, “[a]n abstract idea can generally be described at different levels of abstraction.”

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<sup>5</sup> “[T]he important inquiry for a § 101 analysis is to look to the claim.” *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013). “In *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1273 (Fed. Cir. 2012), the court observed that ‘claim construction is not an inviolable prerequisite to a validity determination under § 101.’ However, the threshold of § 101 must be crossed; an event often dependent on the scope and meaning of the claims.” *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1347–48 (Fed. Cir. 2015).

<sup>6</sup> “In determining the eligibility of respondents’ claimed process for patent protection under § 101, their claims must be considered as a whole.” *Diamond v. Diehr*, 450 U.S. 175, 188 (1981).

<sup>7</sup> See 2019 Revised 101 Guidance, 84 Fed. Reg. at 52, footnote 14 (“*If a claim, under its broadest reasonable interpretation.*”) (emphasis added).

<sup>8</sup> “First, it is always important to look at the actual language of the claims. . . . Second, in considering the roles played by individual limitations, it is important to read the claims ‘in light of the specification.’” *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1378 (Fed. Cir. 2017) (J. Linn, dissenting in part and concurring in part) (citing *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016)), among others.

*Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1240, 1240–41 (Fed. Cir. 2016) (“The Board’s slight revision of its abstract idea analysis does not impact the patentability analysis.”).

We do not see, and Appellant has not persuasively shown, how claim 11 fails to be directed to an abstract idea falling within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas set forth in the 2019 Revised 101 Guidance.

To the extent Appellant means to argue that the claim presents a technical-improvement solution<sup>9</sup>, it is unpersuasive as to error in the Examiner’s determination that the claimed subject matter is directed to an abstract idea. This is so because the manufacture as claimed fails to adequately support it. We are unable to point to any claim language suggestive of an improvement in technology.

The steps as claimed involve, inter alia, “identifying [a user response],” “determining [that the user response comprises an undesirable

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<sup>9</sup> If Appellant means to argue this point, then such an argument would correspond to Prong Two [“If the Claim Recites a Judicial Exception, Evaluate Whether the Judicial Exception Is Integrated Into a Practical Application”] of Step 2A of the 2019 Revised 101 Guidance. “A claim that integrates a judicial exception into a practical application will 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.” 84 Fed. Reg. at 54. One consideration, implicated here, that is “indicative that an additional element (or combination of elements) may have integrated the exception into a practical application” is if “[a]n additional element reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.” *Id.* at 55.

response],” “selecting [a modification of the automated business process to reduce subsequent undesirable responses in the automated business process below a threshold amount],” and “applying” [the modification to the automated business process].

The steps as claimed are not focused on improving technology. *Cf. Trading Techs. Int’l, Inc. v. IBG LLC*, 921 F.3d 1378, 1384 (Fed. Cir. 2019) (“The claims are focused on providing information to traders in a way that helps them process information more quickly, ’556 patent at 2:26–39, not on improving computers or technology.”). Rather than being directed to any specific asserted improvement in computer capabilities, the claim supports the opposite view — that the claimed subject matter is directed to minimizing undesirable user responses in a business process that is automated via generic computing devices employing generic devices. The Specification evidences the generic nature of the devices that may be used to automate the process. *See, e.g.*, para. 37 (“Clients 110, 112, and 114 may be, for example, personal computers, network computers, thin clients, or industrial control systems.”) “[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223.

The claim provides no additional structural details that would distinguish any device required to be employed to practice the steps as claimed from its generic counterparts.<sup>10</sup>

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<sup>10</sup> *Cf. Move, Inc. v. Real Estate Alliance Ltd.*, 721 F. App’x 950, 954 (Fed. Cir. 2018) (non-precedential) (“Claim 1 is aspirational in nature and devoid of any implementation details or technical description that would permit us to conclude that the claim as a whole is directed to something other than the abstract idea identified by the district court.”).

Looking to the Specification, it describes the invention in “business relations” (*see* 2019 Revised 101 Guidance 52) terms, explaining that an objective of the claimed invention is to reduce “user–attrition” based on “offending business processes.” Spec., para. 4.

Businesses often lose customers who are upset due to an automated process which results in an action that is unfair to the customer (generally, a user). For example a business process in a business enterprise may assess a fee to a user's account due to an honest misunderstanding by the user.

*Id.* at para. 2.

Also, it attributes no special meaning to any of the recited operations, individually or in the combination, as claimed. In our view, the “identifying,” “determining,” “selecting,” and “applying” steps are common computer processing functions that one of ordinary skill in the art at the time of the invention would have known generic computers were capable of performing and would have associated with generic computers. *Cf. OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015)

Beyond the abstract idea of offer-based price optimization, the claims merely recite “well-understood, routine conventional activit[ies],” either by requiring conventional computer activities or routine data-gathering steps. *Alice*, 134 S.Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) . . . . For example, claim 1 recites “sending a first set of electronic messages over a network to devices,” the devices being “programmed to communicate,” storing test results in a “machine-readable medium,” and “using a computerized system . . . to automatically determine” an estimated outcome and setting a price. Just as in *Alice*, “all of these computer functions are ‘well-understood, routine, conventional activit[ies]’ previously known to the industry.” *Alice*, 134 S.Ct. at 2359 (quoting *Mayo*, 132 S.Ct. at 1294) (alterations in original); *see also buySAFE[, Inc. v. Google, Inc.]*,

765 F.3d [1350,] 1355 [(Fed. Cir. 2014)] (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”).

By so broadly defining the inventive method, that is, by setting out what it is aspiring to accomplish without any means for achieving it (other than via generic devices), let alone any purported technological improvement, the claim is in effect presenting the invention in purely result-based functional language, strengthening our determination under *Alice* step one that the claim is directed to an abstract idea. *Cf. Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017) (“Claim 1 recites a method for routing information using result-based functional language. The claim requires the functional results of ‘converting,’ ‘routing,’ ‘controlling,’ ‘monitoring,’ and ‘accumulating records,’ but does not sufficiently describe how to achieve these results in a non-abstract way.”). *See also Uniloc USA v. LG Elecs. USA*, 957 F.3d 1303, 1308 (Fed. Cir. 2020):

The claims we held ineligible in *Two-Way Media* similarly failed to concretely capture any improvement in computer functionality. In *Two-Way Media*, the claims recited a method of transmitting packets of information over a communications network comprising: converting information into streams of digital packets; routing the streams to users; controlling the routing; and monitoring the reception of packets by the users. 874 F.3d at 1334. *Two-Way Media* argued that the claims solved data transmission problems, including load management and bottlenecking, but the claimed method was not directed to those improvements. *Id.* at 1336–37. We therefore held the claims ineligible because they merely recited a series of abstract steps (“converting,” “routing,” “controlling,” “monitoring,” and “accumulating records”) using “result-based functional

language” without the means for achieving any purported technological improvement. *Id.* at 1337.

Accordingly, notwithstanding Appellant reasonably characterizes the claim as being directed to minimizing undesirable user responses in an automated business process, we are unpersuaded that the claim is thereby rendered not directed to an abstract idea and failing to fall within the enumerated “[c]ertain methods of organizing human activity” grouping of abstract ideas set forth in the 2019 Revised 101 Guidance. For the foregoing reasons, the record supports the Examiner’s determination that claim 11 is directed to an abstract idea.

We note that Appellant also argues that:

Even if, *arguendo*, claim 11 is directed to an abstract idea, Prong Two of the *Guidance* directs examiners to evaluate whether the claim as a whole integrates the recited judicial exception into a practical application of the exception. *Id.* at p. 54. In performing this evaluation, several considerations are indicative that an additional element has integrated the exception into a practical application. *Id.* One of these considerations is that an element effects a transformation or reduction of a particular article to a different state or thing. *Id.* Appellants submit that claim 11 meets this consideration.

Appeal Br. 12.

“[E]ffect[ing] a transformation or reduction of a particular article to a different state or thing” (*id.*) implicates the machine–or–transformation test that was in vogue prior to *Bilski v. Kappos*, 561 US 593 (2010). Appellant appears to recognize that under that test an article had to be transformed. Yet, according to Appellant, “although the transformed article can be a physical article, it is not **required** to be a physical article. *Enfish, LLC v.*

*Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir. 2016); *see also* MPEP 2106.05(c).” Appeal Br. 12.

We have reviewed *Enfish* and MPEP 2106.05(c) but do not see there stated that when seeking to show a “transformation” under the old machine–or–transformation test<sup>11</sup> an *article* was unnecessary. Different points are made there – that “[t]he machine-or-transformation test is not the sole test for deciding whether an invention is a patent-eligible ‘process.’” (*Bilski*, 561 at 604) and, under that test, a change in an article’s function may be evidence of an article’s transformation, respectively.

Be that as it may, we are unpersuaded that claim 11 transforms an article. Appellant duplicates the claim and argues that, inter alia, “a change in the automated business process to reduce subsequent undesirable responses” amounts to a transformation in the article. *See, e.g.*, Appeal Br. 12. Appellant does not help us understand what exactly has been transformed. The generic device employed to perform the claimed steps remains the same. At best the process changes the information; that is, the steps manipulate undesirable user responses so as to minimize them. But this does not amount to a transformation of an article. *Cf. In re Bilski*, 545 F.3d 943, 963 (Fed. Cir. 2008) (en banc) (“Purported transformations or manipulations simply of public or private legal obligations or relationships, business risks, or other such abstractions cannot meet the test because they are not physical objects or substances, and they are not representative of

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<sup>11</sup> “Under the Court of Appeals’ formulation, an invention is a ‘process’ only if: ‘(1) it is tied to a particular machine or apparatus, or (2) it transforms a particular article into a different state or thing.’ [*In re Bilski*, 545 F.3d 943, 954 (Fed. Cir. 2008)].” *Bilski v. Kappos*, 130 S.Ct. 3218, 3225–26 (U.S. 2010).

physical objects or substances, and they are not representative of physical objects or substances.”)

*Alice step two — Does the Claim Provide an Inventive Concept?*<sup>12</sup>

Step two 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.’” *Alice*, 573 U.S. at 217–18 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 73 (2012)).

In that regard, the Examiner determined, *inter alia*, that:

The claim(s) does/do not include additional elements that are sufficient to amount to significantly more than the judicial exception because they, whether taken separately or as a whole, merely use conventional computer components to retrieve, process, transmit and store data and thus do not provide an inventive concept in the claims.

Non-Final Act. 8. We agree.

Appellant does not appear to challenge the Examiner’s determination under step two of the *Alice* framework.

We addressed the matter of whether the claim presented any purported specific asserted technical improvements in our analysis above under

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<sup>12</sup> This corresponds to Step 2B, of the 2019 Revised 101 Guidance, 84 Fed. Reg. at 56 “if a claim has been determined to be directed to a judicial exception under revised Step 2A, examiners should then evaluate the additional elements individually and in combination under Step 2B to determine whether they provide an inventive concept (*i.e.*, whether the additional elements amount to significantly more than the exception itself).” (emphasis added).



step one of the *Alice* framework. This is consistent with the case law. *See Ancora Techs., Inc. v. HTC Am., Inc.*, 908 F.3d 1343, 1347 (Fed. Cir. 2018) (“We have several times held claims to pass muster under *Alice* step one when sufficiently focused on such improvements.”).

We cited the Specification in our earlier discussion. It is intrinsic evidence that the claimed devices as claimed are conventional. In doing so, we have followed “Changes in Examination Procedure Pertaining to Subject Matter Eligibility, Recent Subject Matter Eligibility Decision (*Berkheimer v. HP Inc.*), 881 F.3d 1360 (Fed. Cir. 2018)],” USPTO Memorandum, Robert W. Bahr, Deputy Commissioner For Patent Examination Policy, April 19, 2018 (the “*Berkheimer* Memo”).

No other persuasive arguments having been presented, we conclude that no error has been committed in the determination under *Alice* step two that claim 11 does not include an element or combination of elements circumscribing the patent-ineligible concept it is directed to so as to transform the concept into a patent-eligible application.

We have considered all of the Appellant’s arguments (including those made in the Reply Brief) and find them unpersuasive.

Accordingly, because we are not persuaded as to error in the determinations that representative claim 11, and claims 12–20 which stand or fall with claim 11, are directed to an abstract idea and do not present an “inventive concept,” we sustain the Examiner’s conclusion that they are directed to patent-ineligible subject matter for being judicially-excepted from 35 U.S.C. § 101. *Cf. LendingTree, LLC v. Zillow, Inc.*, 656 F. App’x 991, 997 (Fed. Cir. 2016) (“We have considered all of LendingTree’s remaining arguments and have found them unpersuasive. Accordingly,

because the asserted claims of the patents in suit are directed to an abstract idea and do not present an ‘inventive concept,’ we hold that they are directed to ineligible subject matter under 35 U.S.C. § 101.”); *see, e.g., OIP Techs.*, 788 F.3d at 1364; *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1098 (Fed. Cir. 2016).

*Claims 11–16 and 18–20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, and Kalns.*

Independent claims 11 and 20 call for “[a] change compris[ing] removing a step from the automated business process.”

According to the Examiner,

Naik: Figs. 1-4 and Cols. 6-9: Specific events associated with a dialog can be obtained by mining call logs from existing or new applications in real-time to generate events of interest. Classified interaction data can be used to train models which can be used to perform classification in an online manner. As was the case with offline classification, a variety of techniques can be used for the training of models. For instances records could be classified as "good" or "bad" using finite state machine based on the meanings of responses given by a caller. Once a model for online classification has been trained, that model can actually be used to determine whether to replace the automated interaction process [automated business process] by transferring a call from an automated interaction to a live interaction. Specifically, the classification model uses a log likelihood ratio as a basis for good/bad classification. If the "good" log likelihood falls below a set threshold, then the automated interaction process is replaced by a live operator; thereby increasing customer satisfaction and subsequently reducing undesirableness.).

*Id.* at 14.

It would have been obvious to one of ordinary skill in the art at the time of the effective filing date to combine Fitterer with

Naik's automated business process and emotion detection because the references are analogous/compatible since each is directed toward features for detecting emotion in user communication, and because incorporating Naik's automated business process and emotion detection in Fitterer would have served Fitterer's pursuit of promoting effective communication (See Fitterer ¶¶ 0001-0009) and further obvious since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

*Id.* at 14–15.

We have reviewed Naik, specifically Figs. 1-4 and cols. 6–9, but have been unable to discern what the Examiner is relying upon as evidencing “[a] change compris[ing] removing a step from the automated business process” as claimed.

The Examiner may be referring to this passage:

For example, it is possible that a classification model could be used directly to predict whether an interaction is "good" and therefore should continue in automation or "bad" and therefore should be transferred to a live individual (e.g., using a language model as described above, the interaction could be transferred to a live individual if  $P(x_{ILM}^{good})$  falls below a set threshold, or if  $P(x_{ILM}^{bad})$  rises above a set threshold).

Naik, 8:57–64. But we do not see how transferring a customer to a live individual amounts to “removing a step from the automated business process” as claimed.

We agree with Appellant that:

the only remedy for a poor automated customer interaction Naik teaches is to transfer the customer to a human actor. This remedy

cannot reasonably be interpreted as teaching or suggesting selecting a modification of the automated business process, wherein the modification causes a change in the automated business process to reduce subsequent undesirable responses in the automated business process below the threshold amount, wherein the change applies to the user, and **wherein the change comprises removing a step from the automated business process; and modifying a timeline of a future portion of the present transaction**, as in claim 11, either.

App. Br. 15.

The rejection is not sustained on the ground that a prima facie case of obviousness has not been made out in the first instance for the subject matter of claim 11 and that of claims 12–16 and 18–20 that depend from claim 11.

*Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, Kalns, and Hakkani-Tur.*

This rejection of dependent claim 17 is not sustained for the reasons given above in not sustaining the rejection of independent claim 11 from which it depends.

#### CONCLUSION

The decision of the Examiner to reject claims 11–20 is affirmed.

More specifically:

The rejection of claims 11–20 are provisionally rejected on the ground of nonstatutory double patenting over claims 1–10 of copending Application No. 14/332,609.

The rejection of claims 11–20 under 35 U.S.C. § 101 as being directed to judicially-excepted subject matter is affirmed.

The rejection of claims 11–16 and 18–20 under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, and Kalns is reversed.

The rejection of claim 17 under 35 U.S.C. § 103(a) as being unpatentable over Fitterer, Mintz, Naik, Kalns, and Hakkani-Tur is reversed.

### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
11–20		Nonstatutory Double Patenting	11–20	
11–20	101	Eligibility	11–20	
11–16, 18–20	103(a)	Fitterer, Mintz, Naik, Kalns		11–16, 18–20
17	103(a)	Fitterer, Mintz, Naik, Kalns, Hakkani-Tur		17
<b>Overall Outcome</b>			11–20	

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

**AFFIRMED**