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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* JOSEPH BJORN OVICK, MARK CARLSON, RYAN HAGEY,  
MARGARET REID, PATRICK STAN, PATRICK WRIGHT,  
KRISHNA PRASAD KOGANTI, and  
GLENN POWELL

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Appeal 2018-003098<sup>1</sup>  
Application 13/865,101<sup>2</sup>  
Technology Center 3600

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Before ANTON W. FETTING, AMEE A. SHAH, and  
MATTHEW S. MEYERS, *Administrative Patent Judges*.

FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

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<sup>1</sup> The record includes a transcript of the oral hearing held August 19, 2019.

<sup>2</sup> According to Appellants, the real party in interest is Visa U.S.A. Inc. (Appeal Br. 2).

### STATEMENT OF THE CASE<sup>3</sup>

Joseph Bjorn Ovick, Mark Carlson, Ryan Hagey, Margaret Reid, Patrick Stan, Patrick Wright, Krishna Prasad Koganti, and Glenn Powell (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1, 2, 5–13, 21, 22, and 24–33, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

Appellants invented a way of processing of payment transactions, such as payments made via credit cards, debit cards, prepaid cards, etc., and the redemption of the benefits of offers, such as coupons, deals, discounts, rewards, etc. Specification para. 3.

An understanding of the invention can be derived from a reading of exemplary claim 21, which is reproduced below (bracketed matter and some paragraphing added).

21. A method, comprising:

[0] providing a computing apparatus having:

a transaction handler configured in an electronic payment processing network;

and

a data warehouse coupled with the transaction handler and storing at least:

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<sup>3</sup> Our decision will make reference to Appellants' Appeal Brief ("App. Br.," filed July 20, 2017) and Reply Brief ("Reply Br.," filed January 30, 2018), and the Examiner's Answer ("Ans.," mailed November 30, 2017), and Final Action ("Final Act.," mailed April 7, 2017).

data associating an offer with a consumer account identified by account information, wherein:

the consumer account is configured to make payments on behalf of a user of the consumer account in the electronic payment processing network, and the offer is configured to have requirements and a benefit which is to be provided to the user after the requirements are satisfied;

and

a trigger record specifying:

a requirement subset of the requirements;

and

an action to process the offer, where the action is to be performed in response to the requirement subset being satisfied by any transaction processed by the transaction handler;

[1] processing, by the transaction handler configured in the electronic payment processing network, transactions made in the electronic payment processing network;

[2] monitoring, by the transaction handler, the transactions based on the trigger record stored in the data warehouse to detect any transaction that satisfies the requirement subset;

[3] receiving, in the transaction handler in the electronic payment processing network, a first authorization request transmitted from a transaction terminal of a merchant for a particular transaction in the consumer account;

[4] determining, by the transaction handler based on the monitoring, that the particular transaction as requested by the first authorization request satisfies the requirement subset specified in the trigger record;

and

[5] in response to the first authorization request received in the transaction handler and a determination that the particular

transaction as requested by the first authorization request satisfies the requirements of the offer, performing the action specified in the trigger record,

wherein performing the action for the particular transaction causes the computing apparatus to process the offer by determining whether the requirements of the offer are satisfied in entirety by the particular transaction;

[6] in response to a determination that the requirements of the offer are satisfied in entirety by the particular transaction:

[6.1] generating, by the transaction handler, a first authorization response for the first authorization request;

[6.2] providing, in the first authorization response, offer information identifying the offer;

and

[6.3] transmitting the first authorization response, from the transaction handler to the transaction terminal without communicating, for the first authorization request, with an issuer of the consumer account, wherein the first authorization response causes the transaction terminal to:

modify the particular transaction to generate a modified transaction, based on the offer information provided in the first authorization response, in accordance with the benefit of the offer,

and

transmit into the electronic payment processing network a second authorization request for the modified transaction in the consumer account;

[6.4] receiving, by the transaction handler in the electronic payment processing network, the second authorization for the modified transaction submitted from the transaction terminal;

[6.5] routing, by the transaction handler, the second authorization request to the issuer in the electronic payment processing network;

and

[6.6] routing, by the transaction handler, a second authorization response, from the issuer to the transaction terminal, for the second authorization request.<sup>4</sup>

The Examiner relies upon the following prior art:

Ruckart	US 2006/0085270 A1	Apr. 20, 2006
Buchheit	US 2008/0040270 A1	Feb. 14, 2008
White	US 2008/0133351 A1	June 5, 2008
Winters	US 2011/0087531 A1	Apr. 14, 2011
Ciancio	US 8,123,125 B2	Feb. 28, 2012

Claims 1, 2, 5–13, 21, 22, and 24–33 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1, 2, 5, 8, 10, 21, 22, 24, 27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White and Ciancio.

Claims 6, 11, 12, 25, 31, and 32 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Ruckart.

Claims 7 and 26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Winters.

Claims 9 and 28 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Winters.

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<sup>4</sup> The paragraph indentation of claim 21 as presented in the Amendment filed December 8, 2016 and in the Appeal Brief Claims Appendix would have limitations 6.4–6.6 outdented once from the above, so as to not be part of the limitation 6 “in response to.” But this would imply a second authorization irrespective of limitation 6. Yet limitation 6.1, the step that generates the second authorization request, is dependent on limitation 6. The original indenting would then recite to a second authorization that might not exist. The indenting supra appears to be what is meant.

Claims 13 and 33 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Buchheit.

### ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of results desired.

The issues of obviousness turn primarily on whether the art describes all limitations.

### FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

#### Facts Related to Claim Construction

01. The disclosure contains no lexicographic definition of “trigger record.”

#### Facts Related to Appellants’ Disclosure

02. In one embodiment, a trigger record is configured to determine whether the transaction handler is to check the offer for the application of the offer. When the account information provided in the authorization request and/or other information as identified in the authorization request, such as the identity of the merchant operating the transaction terminal, satisfies the requirement of the trigger record, the trigger record instructs the transaction handler to determine the applicability of the offer to the transaction for which the authorization request is submitted (or for which the authorization response is provided). The use of the trigger record to trigger the transaction handler to check the applicability of the

offer improves the efficiency of the transaction handler by optimized requirement checking operations relative to the trigger records and by filtering out transactions that do not meet the requirements of the trigger records. Spec. para. 267.

#### Facts Related to the Prior Art

##### White

03. White is directed to payment systems, and in particular, processing rewards at the point of interaction (e.g., such as at point of sale (“POS”) locations). White para. 2.
04. White describes one or more rewards programs funded in whole or in part by one or more entities (e.g., one or more merchants, issuers, payment systems, payment processors, or product manufacturers) are implemented via a payment transaction authorization network. A rewards system computer and/or a reward data source is associated with the payment transaction authorization network. **The rewards system computer and/or the reward data source store information that defines the rewards programs**, including information indicating which purchase transactions qualify for rewards, merchant and acquirer information identifying qualifying transactions, the amounts of the rewards, and any reward messaging to be delivered to the point of interaction for communication to the customer. In some embodiments, the rewards system computer and/or the reward data source also store information associated with individual reward accounts, including, for example, the reward point balance associated with each account. White para. 20.

05. White describes payment transaction authorization requests being screened to identify payment transactions that qualify for rewards. **Authorization requests associated with qualifying purchases are supplemented with appropriate reward messaging data for delivery to the point of interaction.** Details about the rewards are transmitted to a point of interaction for communication to the customer during the transaction. The rewards may be delivered to the customer in the current transaction as a reduction in the overall transaction amount. Messaging may be delivered informing the customer of a reward or a discount they can receive at a later visit to the merchant, or of the number or amount of additional transactions or purchases needed to qualify for a reward or discount. White para. 21.
06. White describes using a previously existing payment processing network as the vehicle for identification, communication and delivery of rewards (including, for example, statement rebates, discounts, and points redemptions). Little or no modification of the payment processing network itself is required, since a separate rewards system computer is associated with or in communication with the payment processing network to generate the rebate transactions to be handled through existing mechanism of the payment processing network. White para. 22.
07. White describes each reward program being administered using data identifying the types of transactions that qualify for a reward, as well as other eligibility criteria (such as program eligibility dates, etc.). Payment card accounts may qualify based on account

ranges (e.g., an issuer may specify that accounts in a certain account number range are eligible for participation in a reward program), or based on individual accounts. Individual accounts (or account ranges) may have different levels of rebate or reward program eligibility. Eligibility may be determined using statistical analysis based on prior transaction information associated with individual accounts. Eligibility may be determined based on spend triggers or amounts at a participating merchant which causes the customer to become eligible for a discount at a second merchant. Eligibility may be determined based on transactions conducted during a specific period of time (e.g., a customer who has not used their account for a while may be given a specific period of eligibility to receive a reward to encourage the customer to use their account). Reward data source stores the data (**or a subset of the data**) needed to perform such a lookup, either on an individual account or an account range basis. White para. 36.

08. White describes an approach that uses payment card account number ranges and merchant ID data elements for the identification of participating merchants and specific customer segments who qualify for a reward, a discount, or a points redemption. Specific merchandise items can be targeted through the use of “Promotion Codes” populated in a Promotion Code field of the authorization request record. White para. 90.
09. White describes a rewards datastore that stores data identifying one or more reward account ranges, one or more merchant/acquirer combinations, transaction thresholds, rewards,

and reward messages. For example, in some embodiments the eligibility for reward programs may be defined based on payment card account ranges (or specific account identifiers), the merchant locations at which rewards may be earned, and qualifying transaction thresholds. Further, the terms of rewards earned in qualifying transactions may include fixed rewards or percentage discounts or complementary services and offers. Different reward messages may be stored in the datastore for insertion into authorization response messages for delivery to merchant point of sale locations for ultimate display or communication to customers. Those skilled in the art will appreciate that other qualifying conditions and program specifications may also be included in rewards datastore to administer and deliver rewards messages.

White para. 91.

Ciancio

10. Ciancio is directed to discount pricing of merchandise and fuel, and in particular, to a system and method having an in-store point-of-sale system communicate with a fuel center point-of-sale system to create a combined point-of-sale system that provides fuel discount pricing. Ciancio 1:14–19.
11. Ciancio describes how a customer may present his/her customer loyalty card at any time during the purchasing process. Once a customer enters a valid customer loyalty card, any discount pricing on a purchased product may be shown at the time of presenting the product for purchase, or at the end of all purchased products when the terminal handler is calculating a total price

owed. Also, to calculate the total price, for each selected product the terminal handler queries the checkout manager which provides a regular price and a discounted price based on the product purchased and customer information via the sales information database and potentially the target manager and market manager. Ciancio 8:27–39.

12. Ciancio describes how the customer submits payment to the terminal handler after the customer is presented with a total price for the purchased products. The terminal handler processes the customer's payment by conventional means. However, if the customer submits payment by a credit or bank card, the terminal handler submits the payment request, including the customer's card/account number, type of card, card's sponsoring institution (bank name), and the total purchase amount, to the checkout manager. The checkout manager in turn submits the payment request to the electronic payment handler. Accessing the customer account database, the electronic payment handler determines whether to authorize the payment request as discussed above. The electronic payment handler returns an authorization code to the checkout manager which in turn passes the authorization code to the requesting terminal handler. Ciancio 8:40–61.

## ANALYSIS

Initially, we construe the limitation “trigger record” because although on its face, the term describes a record modified by the word “trigger,” how

such modification manifests is not immediately apparent. There is no lexicographic definition. Claim 1 does not recite how the record is structured or used as a record, but only what it contains, viz, data describing a set of conditions and an action. According to the Specification, this data is used to determine whether the transaction handler is to check an offer for the application of the offer. The data in the record specifies criteria that, when met, leads the process to perform the action also recited in the record, which includes further checking for promotion applicability. The action is itself left as generic, except that it includes further selection criteria checking. The manner and implementation of specifying this data is itself unspecified. It may be no more than a code that specifies data scattered among other records. In such a case, it would be hard to find efficiencies. Thus, a trigger record is a record containing data describing course filter criteria, that when met, lead the process to further refine the selection process. It is not a record that itself triggers or performs something, but only a record that contains data. That data, when read, is used to determine whether some further step will be performed. It is in that sense the record is characterized as a trigger record. We construe a trigger record as a record containing data describing criteria and some action.

*Claims 1, 2, 5–13, 21, 22, and 24–33 rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more*

STEP 1<sup>5</sup>

Claim 21, as a method claim, nominally recites one of the enumerated categories of eligible subject matter in 35 U.S.C. § 101. The issue before us is whether it is directed to a judicial exception without significantly more.

STEP 2

The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the claims before us? To answer that question, . . . consider the elements of each claim both individually and “as an ordered combination” to determine whether the additional elements “transform the nature of the claim” into a patent-eligible application. [The Court] described step two of this analysis as 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 Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217–18 (2014) (citations omitted) (*citing Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66 (2012)). To perform this test, we must first determine what the claims are directed to. This begins by determining whether the claims recite one of the judicial exceptions (a law of nature, a natural phenomenon, or an abstract idea). Then, if claims recite a judicial exception, determining

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<sup>5</sup> For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 FR 50 (Jan. 7, 2019) (“Revised Guidance”).

whether the claims at issue are directed to the recited judicial exception, or whether the recited judicial exception is integrated into a practical application of that exception, i.e., that the claims “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.” Revised Guidance at 54. If the claims are directed to a judicial exception, then finally determining whether the claims provide an inventive concept because the additional elements recited in the claims provide significantly more than the recited judicial exception.

STEP 2A Prong 1

At a high level, and for our preliminary analysis, we note that method claim 21 recites processing transactions, monitoring the transactions, receiving a request, determining that the request meets criteria, performing an unspecified action to process an offer, generating a response and providing information, transmitting the response without communicating the request, modifying a transaction and transmitting a request, receiving an authorization, and routing the request and response. Processing transactions is generic data processing. Monitoring transactions is receiving data. Determining that criteria are met is rudimentary data analysis. Performing an unspecified action to process data is generic data processing. Providing information is transmitting data. Modifying a transaction is updating data. Routing data is transmitting data. Thus, claim 21 recites processing, receiving, analyzing, generating, transmitting, and updating data. None of the limitations recite technological implementation details for any of these steps, but instead recite only results desired by any and all possible means.

There is an additional prefatory step of providing a computing apparatus, but this is no more than reciting the computer context for the steps recited. The limitations listed under this step are high level functional descriptions of what software modules and data in the computer would provide, and so only serve to recite labels for the software that perform the subsequent steps.

From this we see that claim 21 does not recite the judicial exceptions of either natural phenomena or laws of nature.

Under Supreme Court precedent, claims directed purely to an abstract idea are patent in-eligible. As set forth in the Revised Guidance, which extracts and synthesizes key concepts identified by the courts, abstract ideas include (1) mathematical concepts<sup>6</sup>, (2) certain methods of organizing human activity<sup>7</sup>, and (3) mental processes<sup>8</sup>. Among those certain methods of organizing human activity listed in the Revised Guidance are commercial or legal interactions. Like those concepts, claim 21 recites the concept of a marketing promotional campaign. Specifically, claim 21 recites operations that would ordinarily take place in advising one to apply a promotional discount to a transaction authorization that meets criteria for the promotion.

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<sup>6</sup> See, e.g., *Gottschalk v. Benson*, 409 U.S. 63, 71–72 (1972); *Bilski v. Kappos*, 561 U.S. 593, 611 (2010); *Mackay Radio & Telegraph Co. v. Radio Corp. of Am.*, 306 U.S. 86, 94 (1939); *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018).

<sup>7</sup> See, e.g., *Bilski*, 561 U.S. at 628; *Alice*, 573 U.S. at 219-20; *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed Cir. 2014); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1383 (Fed. Cir. 2017); *In re Marco Guldenaar Holding B.V.*, 911 F.3d 1157, 1160–61 (Fed. Cir. 2018).

<sup>8</sup> See, e.g., *Benson*, 409 U.S. at 67; *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1371–72 (Fed. Cir. 2011); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016).

The advice to apply a promotional discount to a transaction authorization that meets criteria for the promotion involves routing an authorization response, from the issuer to the transaction terminal, which is an economic act, and modifying the particular transaction to generate a modified transaction, based on the offer, which is an act ordinarily performed in the stream of commerce. For example, claim 21 recites “routing . . . authorization response, from the issuer to the transaction terminal,” which is an activity that would take place whenever one is charging a payment in commerce. Similarly, claim 1 recites “modify the particular transaction to generate a modified transaction, based on the offer,” which is also characteristic of applying a commercial promotion.

The Examiner determines the claims to be directed to managing transactions between customers, merchants and other entities. Final Act. 4.

The preamble to claim 21 does not recite what it is to achieve, but the steps in claim 21 result in modifying a commercial transaction and transmitting authorization information absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations 2, 3, and 6.4 recite receiving data. Limitations 1 and 5 recite conventional data processing. Limitation 4 recites conventional generic data analysis. Limitation 6.1 recites generating data. Limitations 6.2, 6.3, 6.5, and 6.6 recite transmitting data.

The limitations thus recite advice for applying a promotional discount to a transaction authorization that meets criteria for the promotion. To advocate applying a promotional discount to a transaction authorization that meets criteria for the promotion is conceptual advice for results desired and not technological operations.

The Specification at paragraph 3 describes the invention as relating to the processing of payment transactions, such as payments made via credit cards, debit cards, prepaid cards, etc., and the redemption of the benefits of offers, such as coupons, deals, discounts, rewards, etc. Thus, all this intrinsic evidence shows that claim 21 is directed to a marketing promotional campaign. This is consistent with the Examiner's determination.

This in turn is an example of commercial or legal interactions as a certain method of organizing human activity because marketing promotions are organized human behavior to promote further commerce. The concept of a marketing promotional campaign by applying a promotional discount to a transaction authorization that meets criteria for the promotion is one idea for inducing customers to buy more. The steps recited in claim 21 are part of how this might conceptually be premised.

Our reviewing court has found claims to be directed to abstract ideas when they recited similar subject matter. *Ultramerical, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)(advertising).

From this we conclude that at least to this degree, claim 21 is directed to a marketing promotional campaign by applying a promotional discount to a transaction authorization that meets criteria for the promotion, which is a commercial and legal interaction, one of certain methods of organizing human activity identified in the Revised Guidance, and, thus, an abstract idea.

#### STEP 2A Prong 2

The next issue is whether claim 21 not only recites, but is more precisely directed to this concept itself or whether it is instead directed to

some technological implementation or application of, or improvement to, this concept i.e. integrated into a practical application.<sup>9</sup>

At the same time, we tread carefully in construing this exclusionary principle lest it swallow all of patent law. At some level, “all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.” Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. “[A]pplication[s]” of such concepts “ ‘to a new and useful end,’ ” we have said, remain eligible for patent protection. Accordingly, in applying the § 101 exception, we must distinguish between patents that claim the “‘buildin[g] block[s]’ ” of human ingenuity and those that integrate the building blocks into something more.

*Alice*, 573 U.S. at 217 (citations omitted).

Taking the claim elements separately, the operation performed by the computer at each step of the process is expressed purely in terms of results, devoid of implementation details. Steps 2, 3, and 6.4 are pure data gathering steps. Limitations describing the nature of the data do not alter this. Steps 6.1–6.6 are insignificant post solution activity, such as storing, transmitting, or displaying the results. Steps 1, 4, and 5 recite generic computer processing expressed in terms of results desired by any and all possible means and so present no more than conceptual advice. All purported inventive aspects reside in how the data is interpreted and the results desired, and not in how the process physically enforces such a data interpretation or in how the processing technologically achieves those results.

Viewed as a whole, Appellants’ claim 21 simply recites the concept of a marketing promotional campaign by applying a promotional discount to a

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<sup>9</sup> See, e.g., *Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

transaction authorization that meets criteria for the promotion as performed by a generic computer. This is no more than conceptual advice on the parameters for this concept and the generic computer processes necessary to process those parameters, and do not recite any particular implementation.

Claim 21 does not, for example, purport to improve the functioning of the computer itself. Nor does it effect an improvement in any other technology or technical field. The Specification spells out different generic equipment<sup>10</sup> and parameters that might be applied using this concept and the particular steps such conventional processing would entail based on the concept of a marketing promotional campaign by applying a promotional discount to a transaction authorization that meets criteria for the promotion under different scenarios. It does not describe any particular improvement in the manner a computer functions. Instead, claim 21 at issue amounts to nothing significantly more than an instruction to apply a marketing promotional campaign by applying a promotional discount to a transaction authorization that meets criteria for the promotion using some unspecified, generic computer. Under our precedents, that is not enough to transform an abstract idea into a patent-eligible invention. *See Alice*, 573 U.S. at 225–26.

None of the limitations reflect an improvement in the functioning of a computer, or an improvement to other technology or technical field, applies or uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition, implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture

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<sup>10</sup> The Specification describes a mobile phone, a mobile computer, a personal media player, a personal digital assistant, a tablet computer, a digital wallet, a social networking site, an email inbox. Spec. para. 72.

that is integral to the claim, effects a transformation or reduction of a particular article to a different state or thing, or applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment, such that the claim as a whole is more than a drafting effort designed to monopolize the exception.

We conclude that claim 21 is directed to achieving the result of a marketing promotional campaign by advising one to apply a promotional discount to a transaction authorization that meets criteria for the promotion, as distinguished from a technological improvement for achieving or applying that result. This amounts to commercial or legal interactions, which fall within certain methods of organizing human activity that constitute abstract ideas. The claim does not integrate the judicial exception into a practical application.

#### STEP 2B

The next issue is whether claim 21 provides an inventive concept because the additional elements recited in the claim provide significantly more than the recited judicial exception.

The introduction of a computer into the claims does not generally alter the analysis at *Mayo* step two.

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “to a particular technological environment.” Stating an abstract idea while adding the words “apply it with a computer” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “implement[t]” an abstract

idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “additional feature[e]” that provides any “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

*Alice*, 573 U.S. at 223–24 (citations omitted).

“[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea [] on a generic computer.” *Alice*, 573 U.S. at 225. They do not.

Taking the claim elements separately, the function performed by the computer at each step of the process is purely conventional. Using a computer for processing, receiving, analyzing, generating, transmitting, and updating data amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are generic, routine, conventional computer activities that are performed only for their conventional uses. *See Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). Also see *In re Katz Interactive Call Processing Patent Litigation*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming”). None of these activities are used in some unconventional manner nor do any produce some unexpected result. Appellants do not contend they invented any of these activities. In short, each step does no more than require a generic computer to perform generic computer functions. As to the data operated upon, “even

if a process of collecting and analyzing information is ‘limited to particular content’ or a particular ‘source,’ that limitation does not make the collection and analysis other than abstract.” *SAP America, Inc. v. InvestPic LLC*, 898 F.3d 1161, 1168 (Fed. Cir. 2018).

Considered as an ordered combination, the computer components of Appellants’ claim 21 add nothing that is not already present when the steps are considered separately. The sequence of data processing-reception-analysis-generation-transmission-update is equally generic and conventional. *See Ultramercial*, 772 F.3d at 715 ( sequence of receiving, selecting, offering for exchange, display, allowing access, and receiving payment recited an abstraction), *Inventor Holdings, LLC v. Bed Bath & Beyond, Inc.*, 876 F.3d 1372, 1378 (Fed. Cir. 2017) (sequence of data retrieval, analysis, modification, generation, display, and transmission), *Two-Way Media Ltd. v. Comcast Cable Communications, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (sequence of processing, routing, controlling, and monitoring). The ordering of the steps is therefore ordinary and conventional.

In terms of how the processing is physically apportioned, again, this is conventional. The recital of a handler is no more than a label for a conceptual modular boundary for conceptually analyzing transactions for marketing promotion. Placement of the handler in the stream of transactions is dictated by the data it operates upon. It is conventional to place a function amid the data stream that feeds the function and accepts its results. As an example, see Figure 3 of the White reference. Beyond that, much distributed computing architectures<sup>11</sup>, such as most client-server architectures follow

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<sup>11</sup> For example, *see* Donaldson, *Designing a Distributed Processing System*, ISBN 0470268891, 9780470268896 Wiley, (1979), as support for how old

this formulation, where a separate device performs specialized functions. Thus, the concept of applying promotions to transactions conventionally engenders the concept of performing the function in the transaction stream, and distributing the processing with separate devices is conventional and generic.

We conclude that claim 21 does not provide an inventive concept because the additional elements recited in the claim do not provide significantly more than the recited judicial exception.

#### REMAINING CLAIMS

Claim 21 is representative. The remaining method claims merely describe process parameters. We conclude that the method claims at issue are directed to a patent-ineligible concept itself, and not to the practical application of that concept.

As to the structural claims, they:

are no different from the method claims in substance. The method claims recite the abstract idea implemented on a generic computer; the system claims recite a handful of generic computer components configured to implement the same idea. This Court has long “warn[ed] ... against” interpreting § 101 “in ways that make patent eligibility ‘depend simply on the draftsman’s art.’

*Alice*, 573 U.S. at 226. As a corollary, the claims are not directed to any particular machine.

#### LEGAL CONCLUSION

From these determinations we further determine that the claims do not recite an improvement to the functioning of the computer itself or to any

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and conventional this is.

<https://books.google.com/books?id=OzazAAAIAAJ&q>

other technology or technical field, a particular machine, a particular transformation, or other meaningful limitations. From this we conclude the claims are directed to the judicial exception of the abstract idea of certain methods of organizing human activity as exemplified by the commercial and legal interaction of a marketing promotional campaign by advising one to apply a promotional discount to a transaction authorization that meets criteria for the promotion, without significantly more.

#### APPELLANTS' ARGUMENTS

We are not persuaded by Appellants' argument that the Examiner "erred in focusing on piecemeal analyses of individual pieces and lost sight of the claimed invention as a whole and as an ordered combination." App. Br. 13. The analysis *supra* considers the exemplary claim both as individual limitations and as a whole. The argument does not make any particular contentions as to how the analysis should be applied to the specific claim limitations and the claim as a whole.

We are not persuaded by Appellants' argument that the Examiner "erred in limiting the two steps of the *Mayo* Test to two different isolated parts of a claimed invention." App. Br. 16. The analysis *supra* applies the tests to all parts of the exemplary claim. The argument does not make any particular contentions as to how the analysis should be applied to the specific claim as a whole.

We are not persuaded by Appellants' argument that "the Office Action failed to consider an ordered combination of elements that have been considered in the first stage, Directed-To Inquiry (Step 2A) and additional elements that have not been considered in the first stage, Directed-To Inquiry (Step 2A)." App. Br. 17. An analysis of the ordered combination is

provided supra. The argument does not make any particular contentions as to how the analysis should be applied to the specific claim as an ordered combination.

We are not persuaded by Appellants' argument that "the *Bascom*<sup>12</sup> decision shows that in the analysis of the ordered combination, an explanation of a reason to combine is required, in addition to recognizing that each claim element, by itself, was known in the art." App. Br. 18. Initially, we remind Appellants that *BASCOM* did not find claims eligible on the substance, but rather that the Appellees did not provide sufficient evidence to support a 12(b)(6) motion to dismiss in which facts are presumed in the non-movant's favor.

The key fact in *BASCOM* was the presence of a structural change in "installation of a filtering tool at a specific location, remote from the end-users, with customizable filtering features specific to each end user. This design gives the filtering tool both the benefits of a filter on a local computer and the benefits of a filter on the ISP server." *BASCOM*, 827 F.3d at 1350. This structural change occurred in the context of the internet as it existed at filing in March 1997 when dial up internet service was still prevalent. It was not the idea of having user customizable filtering located separately from the user that was inventive, but the manner of accomplishing it in that context, as the relatively primitive internet architecture at that time did not readily lend itself to such filtering. Filtering located separately from the user was already performed. "To overcome some of the disadvantages of installing filtering software on each local computer, another prior art system relocated

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<sup>12</sup> *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)

the filter to a local server.” *Id.* at 1344. But it was known that allowing user customization there was desirable. “However, the one-size-fits-all filter on the local server was not ideal.” *Id.*

The BASCOM filter was invented prior to the now prevalent use of self identifying devices with media access control (MAC) addresses. Thus, absent that, “BASCOM explains that the inventive concept rests on taking advantage of the ability of at least some ISPs to identify individual accounts that communicate with the ISP server, and to associate a request for Internet content with a specific individual account.” *Id.* Thus, BASCOM solved the problem of how to create the structural relationship known to be desired by finding a way to relate a user to a centrally located filter at a time when how to do so was unclear. It was not the structural relation per se, but how it was accomplished that was inventive. No analogous technological hurdle is described in the instant record. Indeed the whole point appears to be to simply use existing transaction streams and devices to introduce market promotions by adding a record containing parameters and a server to introduce the promotional data.

As we determine supra, the concept for the ordered combination of placing a transaction handler in the stream of transactions is engendered by the functional concept itself, of applying promotions to transactions. This is a historic, not to say conventional common sense concept As Admiral Nelson advised, “no captain can do very wrong if he places his ship alongside that of the enemy.”<sup>13</sup> The conventional place for a naval ship whose function was defense was in the stream of the enemy to be defended against. Similarly, the conventional place for a software function is in the stream of its data feed. In this case, it is also analogous to manual

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<sup>13</sup> Horatio Nelson, The Battle of Trafalgar, October 1805.

performance, as without the recited transaction handler, a merchant would manually modify the amount to have authorized according to the promotion after ascertaining the before promotion amount, essentially manually replacing the original amount with the adjusted amount. Again, the concept of using distributed processing for doing so is just that, a concept.

We are not persuaded by Appellants' argument that:

An inventive concept of the claimed invention, for example, is in the installation of an offer processing tool at a specific location (a transaction handler on an electronic payment processing network) with a non-conventional, non-generic network communication protocol in the electronic payment processing network to allow the application of the benefit of an offer during the authorization of a payment transaction, where a transaction terminal is configured to transmit and receive two rounds of authorization request/response. The initial authorization request generated by the transaction terminal causes the transaction handler of the electronic payment processing network to generate an initial authorization response containing offer information without actually communicating with the issuer processor for its authorization such that a subsequent authorization request can be generated by the transaction terminal for a modified transaction by the transaction terminal for the actual authorization by the issuer processor.

App. Br. 19. As we determine *supra*, the location of the transaction handler is conventional with respect to its data feed. Simply being remote does not add an inventive element as network components are conventionally placed relative to their function. Servers and other specialized distributed computing devices are conventionally separate from presentation devices such as clients. The argument does not explain in what manner performance is optimized. The Specification states that "The use of the standardized set of requirements for trigger records (613) can reduce and limit the

performance impact on the transaction handler (103) in processing payment transactions, since not all requirements are initially examined by the transaction handler (103) and the standardization permits optimized operation efficiency.” Spec. para. 56. As we determine supra, the trigger record is no more than a data repository for criteria. It appears the argument is that using decision criteria retrieved from a record is a form of optimization. But this is conventional data filtering in data processing. “[F]iltering content is an abstract idea because it is a long standing, well-known method of organizing human behavior, similar to concepts previously found to be abstract.” *BASCOM*, 827 F.3d at 1348. Storing data processing search criteria as data on a record is entirely conventional, as evidenced by the use of data in databases for search criteria. Presenting related parameters on a single record is notoriously conventional as anyone who has brought up parameters under Windows Control Panel understands. As to the contention regarding standardization, standardizing is a conceptual idea, not a technological improvement, as evidenced by its applicability to manual and mental steps as well.

We are not persuaded by Appellants’ argument that “there is insufficient similarity between the set of abstract ideas and the claimed invention; and the set of abstract ideas identified in the Office Action does not reflect the focus of the claimed invention as a whole.” App. Br. 20. This is a conclusory argument with no specific contentions. As we determine supra, the claims as a whole are directed to applying a promotional discount to a transaction authorization that meets criteria for the promotion. The claims recite doing so using conventional computer operations. We determine that the use of the recited trigger record and

transaction handler is also conventional parameter storage and distributed processing.

We are not persuaded by Appellants' argument that:

one technological solution includes the use of trigger records to allow a transaction handler to operate on a subset of conditions, optimized for the operation of transaction handler, to detect transactions that may potentially satisfy the requirements of offers and filter out transactions that cannot satisfy the requirements of offers and perform actions specified in the trigger records for further processing of the detected transactions.

For example, one technological solution includes the generation of an initial authorization response containing the offer information, without communicating with the issuer processor for the actual authorization of the transaction requested in the initial authorization request.

The technological solutions minimize the impact of the implementation of the merchant discount redemption tool on the performance of the electronic payment processing network in processing the authorization of payment transactions.

App. Br. 20–21. We discuss the use of the trigger record being no more than conventional *supra*. Adding offer information prior to communicating with the issuer is no more than an information flow decision, and not a technological decision. It is equivalent to the merchant communicating the offer information prior to submitting the authorization.

To offload work from a device such as that at a merchant to a central processing module such as a transaction handler is conventional distributed computing, e.g. client-server, processing. The record shows no technological difficulty in doing so.

We are not persuaded by Appellants' argument that:

The claimed invention of the present application provides an improvement in computer-related technology by allowing a computing device in an electronic payment processing network (e.g., as an enhanced transaction handler (116)) to perform a function that is not previously performable by a conventional transaction handler or a generic computer. More specifically, the “rules” of operations of the improved computing device allows the computer performance of not only the processing the authorization of a payment transactions between accounts controlled by different computers on an electronic payment processing network but also the redemption of a merchant discount offer, in a specific way that minimizes the impact of the merchant discount offer redemption tool on the processing of authorization requests in the electronic payment processing network.

App. Br. 22. The argument does not contend it was not technologically performable. The nature of the claims shows it was not performable only because the concept was not formulated and reduced to software. This is true for all novel abstract ideas mirrored on a computer. The rules of operation are conventional filtering and data update of existing transaction data. Processing of payments on different computers is the ordinary course of commerce as evidenced by the various hardware at various merchants. To offload work from a device such as that at a merchant to a central processing module such as a transaction handler is conventional distributed computed, e.g. client-server, processing. Such techniques are too conventional to be considered inventive.

Appellants also attempt to analogize the claims to those involved in *McRO, Inc. v. Bandai Namco Games America Inc.*, 837 F.3d 1299 (Fed. Cir. 2016). App. Br. 22. In *McRO*, the court held that, although the processes were previously performed by humans, “the traditional process and newly claimed method . . . produced . . . results in fundamentally

different ways.” *FairWarning v. Iatric Systems*, 839 F.3d 1089, 1094 (Fed. Cir. 2016) (differentiating the claims at issue from those in *McRO*). In *McRO*, “it was the incorporation of the claimed rules not the use of the computer, that improved the existing technology process,” because the prior process performed by humans “was driven by subjective determinations rather than specific, limited mathematical rules.” 837 F.3d at 1314 (internal quotation marks, citation, and alterations omitted). In contrast, the claims of the instant application merely implement an old practice of using decision criteria in making sales decisions in a new environment. Appellants have not argued that the claimed processes of selecting promotions apply rules of selection in a manner technologically different from those which humans used, albeit with less efficiency, before the invention was claimed. Merely pigeonholing the objects of decision making to aid decision making is both old and itself abstract.

The claims in *McRO* were not directed to an abstract idea, but instead were directed to “a specific asserted improvement in computer animation, i.e., the automatic use of rules of a particular type.” We explained that “the claimed improvement [was] allowing computers to produce ‘accurate and realistic lip synchronization and facial expressions in animated characters’ that previously could only be produced by human animators.” The claimed rules in *McRO* transformed a traditionally subjective process performed by human artists into a mathematically automated process executed on computers.

*FairWarning*, 839 F.3d at 1094.

The Reply Brief does not add any further substantive arguments.

*Claims 1, 2, 5, 8, 10, 21, 22, 24, 27, 29, and 30 rejected under 35 U.S.C. § 103(a) as unpatentable over White and Ciancio*

We are persuaded by Appellants' argument that the art fails to describe the recited trigger record. App. Br. 9. The Examiner determines that White describes the data recited (Final Act. 9), but White only describes storing the data in a data source, not a record.

*Claims 6, 11, 12, 25, 31, and 32 rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Ruckart*

These claims depend from claims 1, 21, and 30 and so the arguments for those claims are persuasive here.

*Claims 7 and 26 rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Winters*

These claims depend from claims 1 and 21 and so the arguments for those claims are persuasive here.

*Claims 9 and 28 rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Winters*

These claims depend from claims 1 and 21 and so the arguments for those claims are persuasive here.

*Claims 13 and 33 rejected under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Buchheit*

These claims depend from claims 1 and 30 and so the arguments for those claims are persuasive here.

#### CONCLUSIONS OF LAW

The rejection of claims 1, 2, 5–13, 21, 22, and 24–33 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

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The rejection of claims 1, 2, 5, 8, 10, 21, 22, 24, 27, 29, and 30 under 35 U.S.C. § 103(a) as unpatentable over White and Ciancio is improper.

The rejection of claims 6, 11, 12, 25, 31, and 32 under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Ruckart is improper.

The rejection of claims 7 and 26 under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Winters is improper.

The rejection of claims 9 and 28 under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, and Winters is improper.

The rejection of claims 13 and 33 under 35 U.S.C. § 103(a) as unpatentable over White, Ciancio, Ruckart, and Buchheit is improper.

#### DECISION

The rejection of claims 1, 2, 5–13, 21, 22, and 24–33 is affirmed reversed.

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) (2011).

AFFIRMED