UNITED STATES PATENT AND TRADEMARK OFFICE

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PTOL-90A (Rev. 04/07)

UNITED STATES PATENT AND TRADEMARK OFFICE
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BEFORE THE PATENT TRIAL AND APPEAL BOARD
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Ex parte JOSEPH OVICK BJORN,
MARK CARLSON,
RYAN HAGEY,
PATRICK STAN,
KRIS KOGANTI,
PATRICK WRIGHT,
GLENN POWELL,
MARGARET REID,
and PHILLIP LYLE KUMNICK
_____

Appeal 2018-002777[1]
Application 13/676,535[2]
Technology Center 3600
_____

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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[1] The record includes a transcript of the oral hearing held August 19, 2019.
[2] According to Appellants, the real party in interest is Visa International Service Association (Appeal Br. 2).

STATEMENT OF THE CASE[3]

Joseph Ovick Bjorn, Mark Carlson, Ryan Hagey, Patrick Stan, Kris Koganti, Patrick Wright, Glenn Powell, Margaret Reid, and Phillip Lyle Kumnick (Appellants) seek review under 35 U.S.C. § 134 of a final rejection of claims 1–4, 8, 9, 12–18, and 20, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

The Appellants invented a way of processing transaction data, such as records of payments made via credit cards, debit cards, prepaid cards, etc., and/or providing information based on the processing of the transaction data. Specification para. 3.

An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below (bracketed matter and some paragraphing added).

1. A computer-implemented method, comprising:

[0] providing a computing apparatus having

> [0.1] a transaction handler configured in an electronic payment processing network that connects separate computers, the separate computers including:

>> [0.1.1] transaction terminals configured to generate transactions of payments made using identifiers of

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[3] Our decision will make reference to the Appellants' Appeal Brief ("Appeal Br.," filed July 20, 2017) and Reply Brief ("Reply Br.," filed January 11, 2018), and the Examiner's Answer ("Ans.," mailed November 15, 2017), and Final Action ("Final Act.," mailed March 15, 2017).

accounts in the electronic payment processing network;

[0.1.2] first computers controlling the accounts from which the payments are made in the electronic payment processing network;

[0.1.3] second computers controlling accounts in which the payments are received in the electronic payment processing network;

and

[0.1.4] the transaction handler interconnecting the first computers and the second computers in the electronic payment processing network;

[0.2] a data warehouse coupled with the transaction handler and storing

[0.2.1] an offer in association with an account of a user, wherein the offer identifies an amount of discount, and

[0.2.2] a trigger record specifying a set of conditions and identifying an action, wherein the set of conditions specified in the trigger record is a subset of requirements for redemption of the offer, and the action specified in the trigger record identifies the offer;

and

[0.3] memory storing instructions which, when executed on the computing apparatus, cause the computing apparatus to perform the method;

[1] receiving, in the transaction handler, authorization requests communicated in the electronic payment processing network for the transactions;

[2] checking, by the transaction handler, the authorization requests against the set of conditions specified in the trigger record;

[3] identifying, by the transaction handler from the authorization requests, an authorization request for a transaction

in the account of the user that satisfies the set of conditions specified in trigger record, the authorization request specifying a first transaction amount of the transaction and initiated on a transaction terminal on which the transaction is initiated;

[4] in response to the transaction being identified to satisfy the set of conditions specified in the trigger record, performing by the transaction handler the action specified in the trigger record, the performing of the action specified in the trigger record causing the computing apparatus to perform operations related to the offer identified by the action specified in the trigger record, the operations including:

[4.1] determining whether or not the requirements for redemption of the offer, including requirements not specified in the trigger record, are all satisfied by the transaction requested in the authorization request;

[4.2] in response to a determination that the requirements for redemption of the offer are all satisfied by the transaction requested in the authorization request,

[4.2.1] determining a second transaction amount by deducting the amount of the discount of the offer from the first transaction amount,

[4.2.2] replacing, by the transaction handler in the authorization request, the first transaction amount with the second transaction amount, as if the authorization request were initially received in the transaction handler for the second transaction amount,

[4.2.3] transmitting, by the transaction handler, the authorization request having the second transaction amount to a computer, among the first computers, that controls the account of the user,

[4.2.4] receiving, by the transaction handler from the computer that controls the account of the user in the electronic payment processing network, an authorization response for the second transaction amount,

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[4.2.5] embedding, by the transaction handler, offer information in the authorization response, the offer information configured to identify the offer applied to the transaction, and

[4.2.6] transmitting, by the transaction handler via the electronic payment processing network, the authorization response having the offer information embedded therein to the transaction terminal;

[4.2.7] wherein the offer information embedded in the authorization response causes the transaction terminal to print a receipt identifying the offer applied to the transaction via the transaction handler changing the first transaction amount to the second transaction amount.

The Examiner relies upon the following prior art:

White	US 2008/0133351 A1	June 5, 2008
Hammad	US 2009/0271262 A1	Oct. 29, 2009
Salmon	US 2011/0066483 A1	Mar. 17, 2011
Winters	US 2011/0087531 A1	Apr. 14, 2011

Claims 1–4, 8, 9, 12–18, and 20 stand rejected under 35 U.S.C. § 101 as directed to a judicial exception without significantly more.

Claims 1–4, 8, 9, 12, 13, 17, and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Hammad, and Salmon.

Claims 14–16 and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over White, Hammad, Salmon, and Winters.

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 the 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. 274.

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 a reward data source in communication with authorization systems and a rewards system. Reward data source stores data identifying payment card accounts participating in one

or more reward programs associated with authorization systems, as well as details about those reward programs. White para. 35.

Hammad

06. Hammad is directed to split messaging in the context of a payment transaction or the like. Hammad para. 8.

Salmon

07. Salmon is directed to a transaction with a merchant on an account held by an account holder, and more particularly relates to a rebate on the transaction. Salmon para. 2.

Winters

08. Winters is directed to processing of transaction data, such as records of payments made via credit cards, debit cards, prepaid cards, etc., and/or providing information based on the processing of the transaction data. Winters para. 2.

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 1–4, 8, 9, 12–18, and 20 rejected under 35 U.S.C. § 101 as directed
to a judicial exception without significantly more

STEP 1[4]

Claim 1, 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

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[4] For continuity of analysis, we adopt the steps nomenclature from 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019) ("Revised Guidance").

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 the claims recite a judicial exception, determining 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, 84 Fed. Reg. 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 1 recites receiving, checking, and identifying authorization requests, performing some generic action when a request meets criteria on a trigger record, determining a second transaction amount and replacing the original amount with the computed amount, transmitting the modified request,

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receiving a response, and embedding, transmitting, and printing offer data.
Identifying and checking are rudimentary forms of data analysis.
Performing a generic action is conventional data processing. Determining
an amount is mathematical analysis. Replacing data is data update.
Providing and communicating data are transmitting data. Thus, claim 1
recites receiving, analyzing, processing, updating, transmitting, and printing
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 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 1 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[5], (2) certain methods of organizing
human activity[6], and (3) mental processes[7]. Among those certain methods

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[5] *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 America, Inc. v. InvestPic, LLC*,
898 F.3d 1161, 1163 (Fed. Cir. 2018).
[6] *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.*

of organizing human activity listed in the Revised Guidance are commercial or legal interactions. Like those concepts, claim 1 recites the concept of a marketing promotional campaign. Specifically, claim 1 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. The advice to apply a promotional discount to a transaction authorization that meets criteria for the promotion involves identifying a transaction that satisfies the requirements for redemption of the offer, which is an economic act, and determining the amount after discount identified by the offer, which is an act ordinarily performed in the stream of commerce. For example, claim 1 recites "identifying. . . a transaction in the account of the user that satisfies the set of conditions," which is an activity that would take place whenever one is deciding to apply a marketing promotion. Similarly, claim 1 recites "determining . . . by deducting the amount of the discount of the offer from the first transaction amount," which is also characteristic of commercial marketing promotion.

The Examiner determines the claims to be directed to the recited steps. Final Act. 2–4. The preamble to claim 1 does not recite what it is to achieve, but the steps in claim 1 result in modifying a commercial transaction by incorporating the value of some promotion and inserting that modified

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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).

[7] *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).

transaction into the stream of commerce absent any technological mechanism other than a conventional computer for doing so.

As to the specific limitations, limitations 1 and 4.2.4 recite receiving data. Limitations 4.2.3 and 4.2.6 recite generic and conventional data transmission. Limitations 4.2.2 and 4.2.5 recite generic data update. Limitation 4.2.1 recites a mathematical calculation. Limitations 1.3 and 2 recite conventional data processing. Limitation 4.2.7 recites generic printing. Limitations 2, 3, and 4.1 recite generic analysis. All of these recite receiving, analyzing, processing, updating, transmitting, and printing of transaction data, which advise one to apply generic functions to get to these results. 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 transaction data, such as records of payments made via credit cards, debit cards, prepaid cards, etc., and/or providing information based on the processing of the transaction data. Thus, all this intrinsic evidence shows that claim 1 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 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 1 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. *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 715 (Fed. Cir. 2014)(advertising).

From this we conclude that at least to this degree, claim 1 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 1 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.[8]

> 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.

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[8] *See, e.g., Alice*, 573 U.S. at 223, discussing *Diamond v. Diehr*, 450 U.S. 175 (1981).

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 1 and 4.2.4 recite pure data gathering steps. Limitations describing the nature of the data do not alter this. Steps 1.3, 2, 4.2.2 and 4.2.5 recite basic conventional data operations such as processing, updating, and storing data. Steps 4.2.3–4.2.7 are insignificant post solution activity, such as storing, transmitting, or displaying the results. Steps 2, 3, 4.1, and 4.2.1 recite generic computer analysis. All of these recite generic 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, the Appellants' claim 1 simply recites the concept of a marketing promotional campaign by applying a promotional discount to a 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 1 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[9]

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[9] The Specification describes a computer terminal, a television set, a personal computer, a set-top box, a portable computer, a cellular phone,

and parameters that might be applied using this concept and the particular
steps such conventional processing would entail based on the concept of
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 1 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
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 1 is directed to achieving the result of a
marketing promotional campaign by advising one to apply a promotional

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a personal digital assistant (PDA), a pager, a security card, a wireless
terminal, or the like. Spec. para. 464.

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 1 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).

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"[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 receiving, analyzing, processing, updating, transmitting, and printing 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 s*ee 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 is used in some unconventional manner nor do any produce some unexpected result. The 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 the Appellants' claim 1 add nothing that is not already present when the steps are considered separately. The sequence of data reception-analysis-

processing-update-transmission-prinitng 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[10], such as most client-server architectures follow 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.

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[10] For example, see Donaldson, Designing a Distributed Processing System, ISBN 0470268891, 9780470268896 Wiley, 1979 as support for how old and conventional this is.
https://books.google.com/books?id=OzazAAAAIAAJ&q

It is equally conventional to embed information in an existing information flow, if only because doing so takes advantage of existing transmission processing.

We conclude that claim 1 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 1 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 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 marketing promotional campaign by advising one to apply a promotional discount to a transaction authorization that meets criteria for the promotion, without significantly more.

THE APPELLANTS' ARGUMENTS

We are not persuaded by the 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." Appeal Br. 18. 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 the Appellants' argument that the Examiner "erred in limiting the two steps of the *Mayo* Test to two different isolated parts of a claimed invention." Appeal Br. 21. 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 the 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)." Appeal Br. 22. 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 the Appellants' argument that "the *Bascom*[11] 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." Appeal Br. 23. Initially, we remind the 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 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.*

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[11] *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016)

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.* at 1350. 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."[12] 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 performance, as without the recited transaction handler, a merchant would manually modify the amount to have authorized according to the promotion

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[12] Horatio Nelson, The Battle of Trafalgar, October 1805.

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 the Appellants' argument that

> An inventive concept of the claimed invention, for example, is in the installation of a merchant discount tool at a specific location (a transaction handler on an electronic payment processing network), remote from merchants and their customers, with processing techniques that optimize the performance of the electronic payment processing network while adding the new functionality of merchant discount redemption to the electronic payment processing network, including the use of a trigger record technique to improve the efficiency in detecting an eligible transaction. A merchant discount is applied by simply changing the transaction amount during the routing of the authorization request for a qualified transaction from an acquirer processor to an issuer processor; and the details of the application of the merchant discount is communicated to a transaction terminal via information inserted in an authorization request communicated in the electronic payment processing network to the transaction terminal.

Appeal Br. 24. 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 "use of the trigger record (613) to trigger the transaction handler (103) to check the applicability of the offer (186) improves the efficiency of the transaction handler (103) 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. 274. This begs the question by saying efficiency is improved by optimized checking without explaining how optimization occurs. 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. "Filtering 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.

We are not persuaded by the Appellants' argument that "[t]here 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." Appeal Br. 25. 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 the 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 on-the-fly change of transaction amount in authorization request when the transaction handler of the electronic payment processing network routes the authorization request from an acquirer processor and an issuer processor in the electronic payment processing network.

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.

Appeal Br. 26. We discuss the use of the trigger record being no more than conventional *supra*. On the fly change in amount is a simple data file update. This is a computer assignment statement of the form field = value. This is among the most primitive and earliest operations programmers learn. To say that such an operation benefits from not having to create a different variable is to miss the very fact that this is because the operation is just that primitive. The benefits from being so primitive are not inventive, they are inherent. To claim invention to recognized attributes of existing operations misstates the meaning of invention.

Combining two separate functions performed by two separate modules of a transaction handler and a portal is simply conventional performance of plural functions by their respective modules.

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. The record shows no technological difficulty in doing so.

We are not persuaded by the 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.

Appeal Br. 27. 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.

The 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). Appeal Br. 26–28. 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. The 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.

We are not persuaded by the Appellants' argument that the
Specification details "how the present invention is directed to an improved
merchant discount tool on an electronic payment processing network."
Reply Br. 5–7.[13]

The Appellants contend that Specification paragraph 245 describes
how the claim "allows for the application of the offer to be integrated into
the transaction conducted at the transaction terminal during the time period
between transmitting the authorization request for the transaction and
approving the transaction based on the authorization response." *Id.* at 5.
This is equivalent to saying that a merchant offering a promotion at the time
of sale is more efficient than offering it at some other time. It is not the
technology, but the promotional offer temporal placement that provides such
advantage. This advantage stems from the conceptual idea to do so. The
record describes no technological hurdle to modifying the content of a data
field in an authorization request. The placement there is then no more than
the conceptual idea followed by doing it on a computer. And this advantage
is no more than that from automating a merchant's otherwise manual
adjustment to the amount.

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[13] We do not explicitly address other possible portions of the Specification
Appellants choose not to argue in the Appeal or Reply Brief. Determining
what portions might describe other benefits is too speculative in light of the
length of the Specification and absence of clear language identifying other
benefits.

The Appellants contend that Specification paragraph 248 describes how "information being transmitted advantageously allows the operator of the transaction terminal to make a decision on whether or not to accept the adjusted transaction amount or to request further details. This helps facilitate the decision of whether the transaction is to be accepted." *Id.* at 5–6. (citations omitted). Claim 1 recites nothing about such a decision, and so the argument is not commensurate with the scope of the claim. Even if claim 1 did recite such a decision, this would be no more than conventional data transmission and presentation, adding nothing technological to the claim, but only adding the conceptual idea of querying a customer within a transaction.

The Appellants contend that Specification paragraph 252 describes how "the modified (replaced) transaction amount combines the transaction to charge the consumer account of the user with the transaction to charge the merchant sponsoring the benefit of the offer." *Id.* at 6 (citations omitted). Claim 1 recites nothing about such dual charging, and so the argument is not commensurate with the scope of the claim. In any event, relying on the same set of data for more than one operation, such as relying on a combined transaction for charging two accounts, is conventional programming practice. Absent recital of an inventive technological algorithm, this is no more than a conceptual approach to programming.

The Appellants contend that Specification paragraph 274 describes how "the use of the trigger record improves the merchant discount tool on an electronic payment processing network." *Id.* at 6. We responded to this argument *supra*.

The Appellants contend that Specification paragraph 287 describes how the claim "provides a system <u>more efficient</u> than a system that implements the application of the offers at individual issuer processors. The present invention also <u>reduces the overall resource requirements of the entire system</u> and <u>reduces data communication requirements of the system</u>." *Id.* at 6–7. This is a repetition of the argument in support of centralized handling. As we determine *supra*, this is no more than the benefits from conceptual advice for distributed computing, such as client-server approaches generically.

> We are not persuaded by the Appellants' argument that
>
> an inventive concept of the claimed invention is in the installation of a merchant discount tool at a specific location (a transaction handler on an electronic payment processing network remote from merchants and their customers) with processing techniques that <u>optimize</u> the performance of the electronic payment processing network while adding the new functionality of merchant discount redemption to the electronic payment processing network.

Reply Br. 8. As this argument admits, it is a repetition of earlier arguments we respond to *supra*.

We are not persuaded by the Appellants' argument that "that the specific recitation of components in relation to these steps moots any concern of preemption." Reply Br. 9. "Where a patent's claims are deemed only to disclose patent ineligible subject matter under the *Mayo* [*/Alice*] framework, as they are in this case, preemption concerns are fully addressed and made moot." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.,* 788 F.3d 1371, 1379 (Fed. Cir. 2015).

Claims 1–4, 8, 9, 12, 13, 17, and 18 rejected under 35 U.S.C. § 103(a) as
unpatentable over White, Hammad, and Salmon

We are persuaded by the Appellants' argument that the art fails to describe the recited trigger record. Appeal Br. 14. The Examiner determines that White describes the data recited (Final Act. 8), but White only describes storing the data in a data source, not a record.

Claims 14–16 and 20 rejected under 35 U.S.C. § 103(a) as unpatentable
over White, Hammad, Salmon, and Winters

These claims depend from claims 1 and 18 and so the arguments for those claims are persuasive here.

CONCLUSIONS OF LAW

The rejection of claims 1–4, 8, 9, 12–18, and 20 under 35 U.S.C. § 101 as directed to a judicial exception without significantly more is proper.

The rejection of claims 1–4, 8, 9, 12, 13, 17, and 18 under 35 U.S.C. § 103(a) as unpatentable over White, Hammad, and Salmon is improper.

The rejection of claims 14–16 and 20 under 35 U.S.C. § 103(a) as unpatentable over White, Hammad, Salmon, and Winters is improper.

DECISION

The rejection of claims 1–4, 8, 9, 12–18, and 20 is affirmed.

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