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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER
IOSIF, MARIO CINCINAT

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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 RENE HAASE, AATIF SAHIB DIN, and PANKAJ KUMAR

_____

Appeal 2019-000586
Application 14/212,511
Technology Center 3600

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Before JEAN R. HOMERE, JAMES B. ARPIN, and
DANIEL N. FISHMAN, *Administrative Patent Judges.*

FISHMAN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the
Examiner's decision to reject claims 1–8 and 10–27, all of the pending
claims. Claim 9 is cancelled. Claims App'x. We have jurisdiction under
35 U.S.C. § 6(b).

We affirm.

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[1] We use the word Appellant to refer to "applicant" as defined in 37 C.F.R.
§ 1.42(a). Appellant identifies the real party in interest as Groupon, Inc.
Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a "method, apparatus and computer program product . . . provided for calculating profits associated with a promotion or group of promotions offered by a promotion and marketing service." Spec. ¶ 40 (Abstract). Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method for calculating profit for a promotion and marketing service with an application programming interface (API), the method comprising:
>
> providing an interface to an internal user;
>
> receiving a request via the interface to display a plurality of promotions and associated profits;
>
> generating an API call to the promotion and marketing service that is configured to request a gross booking dollars, wherein the gross booking dollars is a hypothetical consumer cost of at least one promotion offered for sale by the promotion and marketing service, and wherein the at least one promotion is redeemable by the consumer at a provider, each promotion having a provider margin representing a percent of gross booking dollars payable to the respective provider;
>
> with a processor, dynamically determining one or more costs associated with the at least one promotion, wherein the one or more costs comprise at least a payment to the provider and a deal factory cost, and storing the one or more costs in a metadata database;
>
> wherein dynamically determining the one or more costs associated with the at least one promotion comprises:
>
>> calculating the deal factory cost by accessing a remote data warehouse via the API, wherein the data warehouse is remote from the promotion and marketing service and is configured to communicate with a plurality of data sources relating to promotions, providers and expenses, the deal factory cost being a cost associated with offering a particular promotion in response to a lapse of time between purchases by a particular consumer, the promotion offered at a higher than average provider

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margin to the provider for agreeing to offer such a promotion; and

utilizing the higher than average provider margin to override determined or estimated costs in the metadata database;

calculating the profit associated with the at least one promotion and for the promotion and marketing service based on at least the dynamically determined one or more costs retrieved from the metadata database;

ranking the plurality of promotions according to the request and calculated associated profits; and

causing display of the profit associated with the at least one promotion and for the promotion and marketing service on the interface in ranked order.

REJECTION[2]

Claims 1–8 and 10–27 are rejected under 35 U.S.C. § 101 as patent ineligible. Final Act. 2–4.

OPINION

We have reviewed the Examiner's rejection in light of Appellant's arguments (Appeal Brief and Reply Brief) that the Examiner has erred. Arguments not made are waived. *See* 37 C.F.R. § 41.37(c)(1)(iv). We disagree with Appellant.

Section 101

An invention is patent-eligible if it claims a "new and useful process, machine, manufacture, or composition of matter." 35 U.S.C. § 101. However, the U.S. Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: "[l]aws of nature, natural phenomena, and

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[2] The Examiner has withdrawn the rejection of claims 1–8 and 10–27 under 35 U.S.C. § 103. Ans. 3.

abstract ideas" are not patentable. *E.g.*, *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208, 216 (2014).

In determining whether a claim falls within an excluded category, we are guided by the Court's two-part framework, described in *Mayo* and *Alice*. *Id.* at 217–18 (citing *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 566 U.S. 66, 75–77 (2012)). In accordance with that framework, we first determine what concept the claim is "directed to." *See Alice*, 573 U.S. at 219 ("On their face, the claims before us are drawn to the concept of intermediated settlement, *i.e.,* the use of a third party to mitigate settlement risk."); *see also Bilski v. Kappos*, 561 U.S. 593, 611 (2010) ("Claims 1 and 4 in petitioners' application explain the basic concept of hedging, or protecting against risk.").

Concepts determined to be abstract ideas, and thus patent ineligible, include certain methods of organizing human activity, such as fundamental economic practices (*Alice*, 573 U.S. at 219–20; *Bilski*, 561 U.S. at 611); mathematical formulas (*Parker v. Flook*, 437 U.S. 584, 594–95 (1978)); and mental processes (*Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)). Concepts determined to be patent eligible include physical and chemical processes, such as "molding rubber products" (*Diamond v. Diehr*, 450 U.S. 175, 191 (1981)); "tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores" (*id.* at 182 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1853))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

If the claim is "directed to" an abstract idea, we turn to the second part of the *Alice* and *Mayo* framework, where "we must examine the elements of the claim to determine whether it contains an 'inventive concept' sufficient

to 'transform' the claimed abstract idea into a patent-eligible application."
Alice, 573 U.S. at 221 (quotation marks omitted). "A claim that recites an abstract idea must include 'additional features' to ensure 'that the [claim] is more than a drafting effort designed to monopolize the [abstract idea].'" *Id.* (alterations in original) (quoting *Mayo*, 566 U.S. at 77). "[M]erely requir[ing] generic computer implementation[] fail[s] to transform that abstract idea into a patent-eligible invention." *Id.*

Patent Office Guidance

The U.S. Patent and Trademark Office (USPTO) published revised guidance on the application of § 101. USPTO's January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50 ("January 2019 Memorandum").[3] Under that guidance, we first look to whether the claim recites:

> (1) (*see* January 2019 Memorandum at 54, Step 2A – Prong One) any judicial exceptions, including certain groupings of abstract ideas (i.e., mathematical concepts, certain methods of organizing human activity such as a fundamental economic practice, or mental processes); and

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[3] The Office issued a further memorandum on October 17, 2019 (the "October 2019 Memorandum") clarifying guidance of the January 2019 Memorandum in response to received public comments. *See* https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf. Moreover, "[a]ll USPTO personnel are, as a matter of internal agency management, expected to follow the guidance." January 2019 Memorandum at 51; *see also* October 2019 Memorandum at 1.

(2) (*see* January 2019 Memorandum at 54, Step 2A – Prong Two)

additional elements that integrate the judicial exception into a

practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).[4]

Only if a claim (1) recites a judicial exception and (2) does not integrate that

exception into a practical application, do we then look to whether the claim:

(3) adds a specific limitation beyond the judicial exception that is not

"well-understood, routine, conventional" in the field (*see* MPEP

§ 2106.05(d)); or

(4) simply appends well-understood, routine, conventional activities

previously known to the industry, specified at a high level of

generality, to the judicial exception.

See January 2019 Memorandum at 56, Step 2B.

Step 1 – Claims Directed to Statutory Categories

Claims 1–8 are directed to methods (i.e., processes), claims 10–18 are

directed to computer program products (i.e., articles of manufacture), and

claim 19 is directed to an apparatus (i.e., a machine). Thus, the pending

claims are directed to recognized statutory categories of § 101, and we turn

to the two-part *Alice/Mayo* analysis. January 2019 Memorandum at 53,

Step 2A Prong 1 – Claims Recite Abstract Ideas

Applying the *Alice/Mayo* analysis, the Examiner determines that the

claims "are first and foremost directed towards a processor implemented

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[4] We acknowledge that some of these considerations may be properly
evaluated under second part of the *Alice/Mayo* analysis (Step 2B of Office
guidance). Solely for purposes of maintaining consistent treatment within
the Office, we evaluate it under first part of *Alice/Mayo* analysis (Step 2A of
Office guidance). *See* January 2019 Memorandum at 51.

method (a process) for calculating profit for a promotion and marketing
service with an application programming interface (API)."[5] Final Act. 2.
The Examiner determines these claims are similar to "organizing and
manipulating information through mathematical correlations," found to be
an abstract idea in *Digitech*.[6] Final Act. 3; Ans. 4. The Examiner also
determines the claims "are also similar to 'collecting information, analyzing
it, and displaying certain results of the collection and analysis' which was
found to be an abstract idea by a controlling court in [*Electric Power Group,
LLC, v. Alstom*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) ("*EPG*")]." Final Act
3; Ans. 4. Specifically, the Examiner determines:

> In particular, the claims comprise steps of: "collecting
> information" e.g., collecting and storing different values
> associated with costs (known baseline metrics, and some
> assumptions), "analyzing the collected information" by defining

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[5] We observe that independent claim 10 recites a computer program product
(an article of manufacture) and independent claim 19 recites an apparatus
(i.e., a machine). Appellant notes that only independent claim 1 is a method
claim but the Examiner's analysis is limited only to methods—not a
computer program product or an apparatus. Appeal Br. 12. Both claims 10
and 19 recite functions performed similar to the methods steps of claim 1.
We find no error in the Examiner's focus on independent method claim 1.
See Accenture Global Servs. GmbH v. Guidewire Software, Inc., 728 F.3d
1336, 1341 (Fed. Cir. 2013) ("Although [*CLS Bank Int'l v. Alice Corp.*, 717
F.3d 1269 (Fed. Cir. 2013) (en banc)] issued as a plurality opinion, in that
case a majority of the court held that system claims that closely track method
claims and are grounded by the same meaningful limitations will generally
rise and fall together." *Id.* at 1274 n.1 (parenthetical omitted)); *Alice Corp.
v. CLS Bank Int'l*, 573 U.S. 208, 226–27 (2014) ("Put another way, the
system claims are no different from the method claims in substance.").

[6] *Digitech Image Techs., LLC v. Elecs. for Imaging, Inc.*, 758 F.3d 1344,
1350 (Fed. Cir. 2014) (holding that claims to a "process of organizing
information through mathematical correlations" are directed to an abstract
idea) ("*Digitech*").

rules and by plugging these costs into a mathematical
function/formula reflective of the rules, scoring/ranking, and
comparing the results (to each other or to some to some known
values in order to determine a profit metric); and "displaying the
results of the collection and analysis".

Final Act. 3. Still further, the Examiner determines the claims comprise

"selecting certain information, analyzing it using mathematical techniques,

and reporting or displaying the results of the analysis" as was found to be an

abstract idea in *SAP America, Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163

(Fed. Cir. 2018) (holding that claims to a "series of mathematical

calculations based on selected information" are directed to abstract ideas)

("*SAP*"). Ans. 4

Appellant contends the Examiner fails to identify what the claims as a

whole are directed to. Appeal Br. 11–12. Appellant further contends the

Examiner has failed to identify what *each* rejected claim is directed to. *Id*. at

14 ("First, there is no focus alleged for each rejected claim and, second, the

Office Action does not compare such alleged focus to concepts that the

courts have identified as abstract."). Appellant contends the Examiner's

rejection fails to consider the claims as a whole as required by earlier Office

guidance and by the Federal Circuit case law. *Id*. at 14–15 (citing *Enfish,

LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016) and *McRO, Inc. v.

Bandai Namco Games Am. Inc.*, 837 F.3d 1299 (Fed. Cir. 2016)); *see also*

Reply Br. 3[7] ("the claims have not been considered as whole combinations,

but that the Office has considered individual elements in isolation, and

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[7] We note Appellant's Reply Brief is devoid of page numbers. We refer to
the caption page as page number 1 and increment subsequent page numbers
sequentially.

without appreciation for the overall focus of the claims or benefits provided by example embodiments").

Initially, we are not persuaded that the Examiner failed to "identify what the claims as a whole are directed to." To the contrary, in rejecting the pending claims under 35 U.S.C. § 101, the Examiner analyzed the claims using the *Mayo/Alice* two-part framework, and identified the claims (*all* claims) as directed to an abstract idea analogous to the abstract ideas found in the *Digitech*, *EPG*, and *SAP* cases and further found the additional elements or combination of elements, other than the abstract idea, does not provide meaningful limitations to transform the abstract idea into a patent-eligible application of the abstract idea, such that the claims amount to significantly more than the abstract idea itself. Final Act. 3–4. The Examiner, thus, set forth the statutory basis of the rejection in a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132. In doing so, the Examiner set forth a proper rejection under § 101, such that the burden shifted to Appellant to demonstrate that the claims are patent-eligible. *See In re Jung*, 637 F.3d 1356, 1362 (Fed. Cir. 2011) (holding that the USPTO carries its procedural burden of establishing a prima facie case when its rejection satisfies the requirements of 35 U.S.C. § 132).

We agree with the Examiner's determinations that the claims recite an abstract idea. Claim 1 recites, in essence:

(1) providing an interface to an internal user;

(2) receiving a request via the interface to display a plurality of promotions and associated profits;

(3) generating an API call to the promotion and marketing service that is configured to request a gross booking dollars, . . . each promotion having a provider margin . . . ;

(4) . . . determining . . . costs associated with the . . . promotion, . . . , and storing the . . . costs in a metadata database; wherein . . . determining . . . costs . . . comprises:

(4.1) calculating the . . . cost by accessing a remote data warehouse via the API, . . . , the . . . cost being a cost associated with offering a particular promotion . . . , the promotion offered at a higher than average provider margin to the provider for agreeing to offer such a promotion; and

(4.2) utilizing the higher than average provider margin to override determined or estimated costs in the metadata database;

(5) calculating the profit associated with the . . . promotion and for the promotion and marketing service based on at least the . . . determined . . . costs retrieved from the metadata database;

(6) ranking the plurality of promotions according to the request and calculated associated profits; and

(7) causing display of the profit associated with the . . . promotion and for the promotion and marketing service on the interface in ranked order.

Method steps (1) and (2) recite collecting information (providing an interface and receiving a request via the interface)—mere extra-solution activity. Steps (3) through (6) recite analysis of the collected information to calculate a profit for various promotions and to rank the promotions based, in part, on the calculated profit. Step (7) displays the results of the

analysis—again, extra-solution activity. The preamble of claim 1 makes clear, these steps recite a "method for calculating profit for a promotion and marketing service."

The Specification supports the Examiner's determination that the focus of the claimed invention is determining profit for promotions. For example, the title of the application ("METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR CALCULATING PROFIT FOR A PROMOTION AND MARKETING SERVICE") makes clear that the focus of the invention (of *all* claims) is to determine profit for a promotion and marketing service. The Specification also clearly identifies the problems to be addressed, namely, "problems and related opportunities relating to internal users [(of a promotion and marketing service)] efficiently analyzing profit related to sales of promotions." Spec. ¶ 1. The Specification further identifies problems of associating certain expenses with the sale of a particular promotion in determining profit of the particular promotion. Spec. ¶ 21. Figures 6 and 7 of the Specification depict the method steps for calculating the profit, and the Specification discloses improvements in determining profit for sales of such promotions by a promotion and marketing service. *See, e.g.*, *id.* ¶¶ 22–25.

The above-identified limitations of claim 1 recite steps for determining and ranking profit for promotions for a promotion and marketing service, which is similar to mitigating risk, a fundamental economic practice as in *Bilski*.[8] Such a fundamental economic practice is a certain method of organizing human activity and, thus, claim 1 recites an

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[8] *Bilski*, 561 U.S. at 611–612.

abstract idea. January 2019 Memorandum at 52. These steps of claim 1 also recite determining profit by mathematical calculations as in *Digitech* and *SAP* and, thus, the claims recite an abstract idea. *Id.*

Step 2A Prong 2 – Abstract Idea Not Integrated Into A Practical Application

Having determined that the claims recite an abstract idea, and, thus, a judicial exception to subject matter eligibility, we next determine whether the claims include additional elements that integrate the judicial exception into a practical application. January 2019 Memorandum at 54. The Office guidance identifies exemplary practical applications as including:

1) Improvement in the functioning of a computer, or an improvement to other technology or technical field;

2) Uses a judicial exception to effect a particular treatment or prophylaxis for a disease or medical condition;

3) Uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim;

4) Transformation or reduction of a particular article to a different state or thing; and

5) Uses a judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological environment.

Id. The guidance further identifies exemplary additional elements that are *not* practical applications of a judicial exception as including:

1) An additional element that merely recites "apply it" or similar language, or that merely includes instructions to implement an

abstract idea on a computer, or that merely uses a computer as a

tool to perform an abstract idea;

2) An additional element that adds insignificant extra-solution

activity to the judicial exception; and

3) An additional element that does no more than generally link the

use of a judicial exception to a technological environment or

field of use.

Id.

The Examiner determines the additional elements of an application program interface ("API") and a processor "are merely used to carry out the functions of the invention previously identified as an abstract idea and offer[] no further technical distinctions of the 'computers.'" Final Act. 4. The Examiner further determines the particular data acquired by the API "does not represent an improvement to API technology." *Id.* at 3–4; Ans. 9.

Appellant contends the claims address problems that only arise in the context of the Internet due to the volume of data and the need for real-time transaction processing speed. Appeal Br. 15–17. Specifically, Appellant contends, "[t]he claims as a whole therefore provide, among other improvements, a unique and particular way of analyzing variations of promotions by utilizing data from remote sources, require a strictly computational implementation (APIs were not used before the Internet), overriding some particular costs, and providing the dynamic calculations to a user." *Id.* at 16–17.

We are not persuaded by Appellant's contentions that the claimed features improve technology of the Internet or computers used in processing promotions. The processor merely performs calculations to determine profit

of promotions and the users merely access the promotion profit information *via the Internet using APIs*. The claims do not improve computers, the Internet, or APIs, but merely apply these known technologies to perform the abstract idea of determining profit of promotions for a promotion and marketing service.

Moreover, we agree with the Examiner that,

> [T]he additional elements noted above, appear to merely apply the abstract concepts to a technical environment in a very general sense – i.e. generic computers used for receiving and transmitting information, accessing a database of values, tracking data, performing calculations, making determinations as the result of some of these steps and displaying the results.

Ans. 5–6.

We remain unpersuaded by Appellant's new contention, presented for the first time in its Reply Brief, that the Examiner failed to consider the purported additional elements of: storing costs of promotions in a metabase database, integration of the API with a remote data warehouse to obtain additional expenses of a promotion, accessing a remote data warehouse in performing the profit calculations, overriding costs in the metabase database, efficient utilization of network resources, offering promotions over the Internet and storing data in the network. Reply Br. 7–8. As above, we discern nothing in these purported additional elements that improves a technology but, instead, merely apply the technology of calculating using computers, accessed, via APIs, over the Internet. The Specification makes reference only to general purpose computers and related technologies. *See, e.g.*, Spec. ¶¶ 108–112

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Accordingly, we are not persuaded that the claims include additional elements that integrate the judicial exception into a practical application. Specifically, we conclude the pending claims do not recite:

(i)   an improvement to the functioning of a computer [(or a mobile device)];
(ii)   an improvement to another technology or technical field;
(iii)   an application of the abstract idea with, or by use of, a particular machine;
(iv)   a transformation or reduction of a particular article to a different state or thing; or
(v)   other meaningful limitations beyond generally linking the use of the abstract idea to a particular technological environment.

See MPEP §§ 2106.05(a)–(c), (e)–(h). Thus, we conclude that the claims are directed to an abstract idea.

Step 2B – Not Significantly More Than The Abstract Idea

Having determined that the claims recite an abstract idea and the claims do not include additional elements to integrate the judicial exception into a practical application, we next determine whether the claims recite significantly more to transform the abstract idea into an inventive concept. *Alice*, 573 U.S. at 221.

The Examiner determines,

The steps of using an API, plugging particular values of costs into the formula, retrieving values from a remote database, or ranking the results, in association with calculating a profit function, when taken both individually and/or as an ordered combination, execute in a manner routinely and conventionally expected of these elements, so that these steps do not provide significantly more than abstract ideas identified for the independent claim.

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Final Act. 4. In particular, the Examiner determines "APIs are known in the art [] and are therefore well-understood, routine, conventional activity in particular fields." *Id.* at 5 (citing *Walker*[9] ¶ 174); Ans. 9. Specifically, the Examiner finds "API calls is what API's do" and "[t]he claims method merely uses an API to make API calls in the expected way that APIs are used and in the expected way that API calls are made." *Id.*

We are not persuaded of Examiner error in Appellant's contentions to the contrary. Appeal Br. 17–21; Reply Br. 7–10. As above, in considering the second prong of Step 2A, the claims as a whole do not recite significantly more than using APIs in the manner they are normally used in computing technology, on generic computers, accessing data in a database in the normal manner, and applying all of these elements in a computing network environment, all to determine profits for promotions offered by a promotion and marketing service—an abstract idea.

CONCLUSION

Accordingly, the Examiner's decision rejecting claims 1–8 and 10–27 is affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–8, 10–27	101	Patent eligibility	1–8, 10–27	

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[9] Walker et al., U.S. 2006/0282323 A1 ("*Walker*" cited by the Examiner in the withdrawn rejection under § 103).

TIME PERIOD FOR RESPONSE

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

AFFIRMED