UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte RAGHURAM KRISHNAPURAM, SUMIT NEGI,
DEEPAK S. PADMANABHAN, and
KARTHIK VISWESWARIAH

Appeal 2017-001297
Application 12/916,665
Technology Center 3600

Before JEREMY J. CURCURI, HUNG H. BUI, and AMBER L. HAGY,
Administrative Patent Judges.

HAGY, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the Examiner's
Final Rejection of claims 1, 4–7, 10–13, and 16–24, which are all of the
pending claims.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

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[1] Appellants identify the real party in interest as International Business
Machines Corporation. (App. Br. 2.)

[2] Appellants have canceled claims 2, 3, 8, 9, 14, and 15. (App. Br. 30, 32,
34 (Claims App'x).)

STATEMENT OF THE CASE

Introduction

According to Appellants, "[t]he present invention relates in general to data processing, and in particular, to optimized customer targeting based on template CRM offers." (Spec. ¶ 1.) Appellants' Specification further states:

> In some embodiments, a Customer Relationship Management (CRM) offer template is established in data storage and includes at least one variable field and having at least one offer attribute. For each of a plurality of customer groups, a data processing system calculates an expected benefit to be obtained by sending an instantiated CRM offer to a customer based upon historical responses, offer cost, and legal values of the at least one variable field. The data processing system outputs a CRM offer instance and target list of customers that maximizes the expected benefit.

(*Id.*, ¶ 3.)

Exemplary Claim

Claims 1, 7, 13, 19, 21, and 23 are independent. Claims 1 and 19, reproduced below with the disputed limitations italicized, are exemplary of the claimed subject matter:

> 1. A method of data processing useful in marketing via an electronic communication network, the method comprising:
>
> establishing in data storage a Customer Relationship Management (CRM) offer template from which multiple different CRM offers can be instantiated, wherein the CRM offer template includes a fixed element specifying a first term common to all CRM offers instantiated from the CRM offer template, a first variable field having an associated plurality of alternative legal values of a second term of CRM offers instantiated from the CRM offer template, and a second variable field having an associated plurality of alternative legal values of a third term of CRM offers instantiated from the CRM offer template, wherein CRM offers instantiated from the CRM offer template that target different customer groups employ different ones of the plurality

of alternative legal values and CRM offers instantiated from the CRM offer template that target different customers within a same customer group all employ common ones of the plurality of alternative legal values for the first variable field and for the second variable field, respectively;

for each of a plurality of customer groups, a data processing system coupled to the data storage calculating an expected benefit to be obtained by sending an CRM offer instance instantiated from the CRM offer template to customers based upon historical responses, offer cost, and the plurality of alternative legal values of the first and second variable fields, wherein the calculating includes adjusting the benefit obtained by a positive response based upon the historical responses and the adjusting includes applying a function to combine probabilities associated with the first and second variable fields; and

in response to the calculating, the data processing system instantiating and outputting, via an electronic communication network, a CRM offer instance including legal values for the first and second variable fields identified by the calculating as maximizing the expected benefit for a particular one of the customer groups.

19.   A method of data processing useful in marketing via an electronic communication network, the method comprising:

establishing in data storage a Customer Relationship Management (CRM) offer template from which multiple different CRM offers can be instantiated, wherein the CRM offer template includes a fixed element specifying a first term common to all CRM offers instantiated from the CRM offer template, a first variable field having an associated plurality of alternative legal values of a second term of CRM offers instantiated from the CRM offer template, and a second variable field having an associated plurality of alternative legal values of a third term of CRM offers instantiated from the CRM offer template, wherein CRM offers instantiated from the CRM offer template that target different customer groups employ different ones of the plurality

of alternative legal values and CRM offers instantiated from the CRM offer template that target different customers within a same customer group all employ common ones of the plurality of alternative legal values for the first variable field and for the second variable field, respectively;

for each of a plurality of customer groups, a data processing system coupled to the data storage calculating an expected benefit to be obtained by sending an CRM offer instance instantiated from the CRM offer template to customers based upon historical responses, offer cost, and the plurality of alternative legal values of the first and second variable fields, wherein:

calculating the expected benefit includes calculating the maximum expected benefit as P(G,O[vi]) * B(O[vi]) − C(O[vi]); and

vi is one of the plurality of alternative legal values of the variable field selected to yield the maximum expected benefit, C(O[vi]) is a cost of delivering an instance of the CRM offer O[vi], B(O[vi]) is the benefit attained when CRM offer O[vi] is accepted by an individual customer, and P(G,O[vi]) is the fraction of positive historical responses of customers in customer group G to CRM offer O[vi]; and

in response to the calculating, the data processing system instantiating and outputting, via an electronic communication network, a CRM offer instance including legal values for the first and second variable fields identified by the calculating as maximizing the expected benefit for a particular one of the customer groups.

References

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Boyd et al. ("Boyd")	US 7,072,848 B2	July 4, 2006
Thomas et al. ("Thomas")	US 7,523,167 B2	Apr. 21, 2009

Rejections

(1)   Claims 1, 4–7, 10–13, and 16–24 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter (abstract idea). (Final Act. 2–3, 10–12.)

(2)   Claims 1, 4–7, 10–13, and 16–24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas and Boyd. (Final Act. 3–10, 12–13.)

Issues

(1)   Whether the Examiner erred in rejecting claims 1, 4–7, 10–13, and 16–24 under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter.

(2)   Whether the Examiner erred in finding the combination of Thomas and Boyd teaches or suggests

> for each of a plurality of customer groups, a data processing system coupled to the data storage calculating an expected benefit to be obtained by sending an CRM offer instance instantiated from the CRM offer template to customers based upon historical responses, offer cost, and the plurality of alternative legal values of the first and second variable fields, wherein the calculating includes adjusting the benefit obtained by a positive response based upon the historical responses and the adjusting includes applying a function to combine probabilities associated with the first and second variable fields[,]

as recited in independent claim 1 and commensurately recited in independent claims 7 and 13.

(3)   Whether the Examiner erred in finding the combination of

Thomas and Boyd teaches or suggests

> calculating the expected benefit includes calculating the
> maximum expected benefit as $P(G,O[vi]) * B(O[vi]) - C(O[vi])$;
> and

> vi is one of the plurality of alternative legal values of the
> variable field selected to yield the maximum expected benefit,
> $C(O[vi])$ is a cost of delivering an instance of the CRM offer
> $O[vi]$, $B(O[vi])$ is the benefit attained when CRM offer $O[vi]$ is
> accepted by an individual customer, and $P(G,O[vi])$ is the
> fraction of positive historical responses of customers in customer
> group G to CRM offer $O[vi][,]$

as recited in independent claims 19, 21, and 23.

ANALYSIS

A.   Section 101 Rejection

Patent eligibility is a question of law. *Dealertrack, Inc. v. Huber*, 674

F.3d 1315, 1333 (Fed. Cir. 2012). The Supreme Court has set forth an

analytical two-step "framework for distinguishing patents that claim laws of

nature, natural phenomena, and abstract ideas from those that claim patent-

eligible applications of those concepts." *Alice Corp. Pty. Ltd. v. CLS Bank

Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v.

Prometheus Labs., Inc.*, 566 U.S. 66, 71–73 (2012)). In the first step of the

analysis, we determine whether the claims at issue are "directed to" a

judicial exception, such as an abstract idea. *Alice*, 134 S. Ct. at 2355. If not,

the inquiry ends. *Thales Visionix Inc. v. U.S.*, 850 F.3d 1343, 1346 (Fed.

Cir. 2017); *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1339 (Fed. Cir.

2016). If the claims are determined to be directed to an abstract idea, then

we consider under step two whether the claims contain an "inventive

concept" sufficient to "'transform the nature of the claim' into a patent-eligible application." *Alice*, 134 S. Ct. at 2355 (quotations and citation omitted).

Noting that "the two stages involve overlapping scrutiny of the content of the claims," the Federal Circuit has described "the first-stage inquiry" as "looking at the 'focus' of the claims, their 'character as a whole,'" and "the second-stage inquiry (where reached)" as "looking more precisely at what the claim elements add—specifically, whether, in the Supreme Court's terms, they identify an 'inventive concept' in the application of the ineligible matter to which (by assumption at stage two) the claim is directed." *Electric Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016). In considering whether a claim is directed to an abstract idea, we acknowledge, as did the Court in *Mayo*, that "all inventions at some level embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas." *Mayo*, 566 U.S. at 71. We, therefore, look to whether the claims focus on a specific means or method that improves the relevant technology or are instead directed to a result or effect that itself is the abstract idea and merely invoke generic processes and machinery. *See Enfish*, 822 F.3d at 1336.

In rejecting claims 1, 4–7, 10–13, and 16–24 under § 101, the Examiner concludes the claims "are directed to the abstract idea of selecting and providing a targeted offer to a customer[,] which is a fundamental economic practice." (Final Act. 2.) The Examiner also finds:

> The additional element(s) or combination of elements in the claim(s) other than the abstract idea per se amount(s) to no more than: either mere instructions to implement the idea on a computer, and/or recitation of generic computer structure that

serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry. Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself.

(*Id.* at 2–3.)

Appellants argue all claims together. (App. Br. 13.) We select claim 1 as representative. Claims 4–7, 10–13, and 16–24 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

Step One: Whether the Claims Are Directed to a Patent-Ineligible Concept (Abstract Idea)

Appellants argue the Examiner has failed to consider each claim individually and as a whole. (App. Br. 12–14.) In particular, Appellants argue the Examiner overly summarizes the claims by characterizing them as directed to "selecting and providing a targeted offer to a customer," noting that "such a phrase appears nowhere in exemplary Claim 1." (*Id.* at 15.) We are not persuaded of error.

The Examiner explicitly points out that each claim was considered as a whole (Final Act. 2; *see also* Ans. 14–21), and the Examiner's overall analysis, provided in greater detail in the Examiner's Answer (Ans. 16–21), bears this out. The Examiner's characterizing the claims, as required by *Alice*, by using phrasing not explicitly stated in the claims does not render the Examiner's analysis improper. To the contrary, the Examiner's characterization follows the first step of the *Alice* inquiry by looking at the "focus" of the claims, an analysis that frequently results in distilling verbose claims into simplified phrasing. For example, in *Alice*, the claims were characterized by the Court as being directed to the abstract idea of

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"intermediated settlement," even though that simplified phrase appeared nowhere in the claims. *See Alice*, 134 S. Ct. at 2355 & n.2. In addition, the Examiner's characterizing the claims as directed to "selecting and providing a targeted offer to a customer" (Final Act. 2, 10) is consistent with Appellants' statement in the Specification that the "present invention relates in general to data processing, and in particular, to optimized customer targeting based on template CRM offers." (Spec. ¶ 1.)

Appellants next argue claim 1 is "directed not to an abstract idea, but to a *specific method* of data processing by which a data processing system optimizes the values of fields to maximize an overall benefit." (App. Br. 15 (emphasis added).) In particular, Appellants insist the claimed calculation "is not some generic process of calculating a 'benefit' in the abstract, but instead a *specific technique* of calculating the benefit based upon specific data, including 'historical responses, offer cost, and the plurality of alternative legal values of the first and second variable fields.'" (*Id.* (emphasis added).) We are not persuaded of error.

The specificity of the technique claimed by Appellants does not, of itself, remove Appellants' claims from the realm of abstract ideas. Even limiting a claimed abstract idea to a particular content or context does not render the claims patent eligible. For example, as many cases make clear, even if a process of collecting and analyzing information is "limited to particular content" or a particular "source," that limitation does not remove the collection and analysis from the realm of the abstract. *Electric Power*, 830 F.3d at 1353, 1355 (citing cases). Nor is a claim to an abstract idea rendered patentable because it is "[g]roundbreaking, innovative, or even brilliant." *See SAP America, Inc. v. Investpic, LLC*, 890 F.3d 1016, 1018

(Fed. Cir. 2018). As our reviewing court has made clear, where, as here, "the advance lies entirely in the realm of abstract ideas," the claims to that advance are ineligible for patenting. *See id.*

Thus, regardless of the specificity (or alleged novelty) of Appellants' claims, we agree with the Examiner's determination that the claims here are directed to abstract ideas. In particular, as the Examiner determines, and we agree, Appellants' claims are directed to the fundamental economic practice of targeting information (e.g., advertisements) to consumers. (Final Act. 2, 10; Ans. 14, 16.) As such, Appellants' claims are similar to claims that have been determined by courts to be directed to abstract ideas. *See Intellectual Ventures I LLC v. Capital One Bank*, 792 F.3d 1363, 1369–70 (Fed. Cir. 2015) (finding the practice of tailoring advertising to individual customers to be a "fundamental . . . practice long prevalent in our system").

Also unpersuasive of Examiner error is Appellants' reliance on the claims' recitation of numerous limitations to create the targeted advertisements. (*E.g.*, App. Br. 4.) As the Examiner determines, and we agree, the various limitations recite only abstract concepts. In particular, the Examiner determines the claims include limitations that amount to using a mathematical formula or algorithm to obtain a result. (Ans. 18 (referring to the formula recited in independent claims 19, 21, and 23).) Such subject matter is not patent eligible. *See Parker v. Flook*, 437 U.S. 584, 595 (1978) (noting that "'if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory,'" *quoting In re Richman*, 563 F.2d 1026, 1030 (CCPA 1977)). The Examiner further determines the claims include limitations that amount to using categories to organize, store, and

transmit information, such as, for example, establishing a template and storing and collecting data to be included in the template. (Ans. 17–18.) In that regard, the claimed "establishing in data storage a Customer Relationship Management (CRM) offer template" is similar to claims addressed in *Wells Fargo*, in which our reviewing court held that the concepts of collecting data, recognizing certain data within the collected data set, and storing the recognized data, are abstract. *See Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343 (Fed. Cir. 2014) (addressing claims including "interactive template creation mode"), *cert. denied*, 136 S. Ct. 119 (2015).

Thus, as the Examiner determines, and we agree, the claims' recitation of multiple abstract concepts, combined to carry out the overall abstract idea of creating advertisements targeted to particular customers, does not render them patent-eligible. As our reviewing court has held, combining several abstract ideas does not render the combination any less abstract. *RecogniCorp, LLC v. Nintendo Co., Ltd.*, 855 F.3d 1322, 1327 (Fed. Cir. 2017) ("Adding one abstract idea . . . to another abstract idea . . . does not render the claim non-abstract."); *see also FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016) (patent-ineligible claims were directed to a combination of abstract ideas).

Finally, we are not persuaded of Examiner error by Appellants' argument that the "[c]laim 1 does not attempt to preempt all possible uses of the claimed method . . . ." (App. Br. 16.) We agree the Supreme Court has described "the concern that drives this exclusionary principle [i.e., the exclusion of abstract ideas from patent eligible subject matter] as one of pre-emption." *Alice*, 134 S. Ct. at 2354. But characterizing preemption as a

driving concern for patent eligibility is not the same as characterizing preemption as the sole test for patent eligibility. As our reviewing court has explained, "[t]he Supreme Court has made clear that the principle of preemption is the basis for the judicial exceptions to patentability" and "[f]or this reason, questions on preemption are inherent in and resolved by the § 101 analysis." *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) (citing *Alice*, 134 S. Ct. at 2354). And although "preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility." *Id.* Moreover, "[w]here a patent's claims are deemed only to disclose patent ineligible subject matter under the [*Alice/Mayo*] framework . . . , preemption concerns are fully addressed and made moot." *Id.*; *see also OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362–63 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 701 (2015)("[T]hat the claims do not preempt all price optimization or may be limited to price optimization in the ecommerce setting do not make them any less abstract.").

Thus, at step one of the analysis, we are not persuaded that the Examiner erred in determining that the claims are directed to a patent-ineligible subject matter—that is, to an abstract idea.

Step Two: Whether Additional Elements Transform The Idea Into Patent-Eligible Subject Matter

Having found that the claims are directed to one or more abstract ideas, the Examiner also finds that the additional elements or combinations of elements "do not add significantly more to the abstract idea of selecting and providing a targeted offer to a customer." (Final Act. 12.) In particular, with regard to representative claim 1, the Examiner finds the claim "merely instructs the practitioner to implement the concept of selecting and providing

a targeted offer to a customer with routine, conventional activity specified at a high level of generality in a particular technological environment." (*Id.* at 11–12.) The Examiner further finds the claims "are similar to the [*Ultramercial*], and [*Planet Bingo*] cases in which the claims merely describe management, organization, and/or performance of a fundamental economic practice using a general purpose computer in communication with a network." (*Id.*)[3]

We agree. Representative claim 1 recites storing data ("establishing in data storage a Customer Relationship Management (CRM) offer template"), manipulating data mathematically in a "data processing system," and outputting data "via an electronic communication network." (App. Br. 30 (Claims App'x).) As the Examiner finds, and we agree, the components recited in these steps are general purpose computer components. (Ans. 19.) This finding is consistent with Appellants' Specification, which describes these components in generic terms. (*See* Spec. ¶ 11 ("data storage 120"); ¶ 16 ("data processing system 110"); ¶ 9 ("networks 104").) As the Supreme Court has explained, "[T]he mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *Alice Corp.*, 134 S. Ct. at 2358. Thus, automating the recited generation of targeted advertisements (even based on the selection of particular data and analysis of that data according to particular rules), through the use of generic computing equipment, does not transform Appellants' claims into patent-eligible subject matter. (*See also* Ans. 18–21.)

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[3] *See Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709 (Fed. Cir. 2014); *Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005 (Fed. Cir. 2014).

Appellants argue the Examiner's findings are in error because the claims recite "unconventional steps that confine the claim to a particular useful application." (App. Br. 17.) This argument is not persuasive of error. Not only do Appellants fail to provide support for the assertion that the claimed steps are "unconventional," but, as noted above, even unconventional abstract ideas are not patent-eligible. *See SAP*, 890 F.3d at 1018. And to the extent Appellants maintain that the limitations of the claims necessarily amount to "significantly more" than an abstract idea because the claimed method is allegedly patentable over the prior art (a point addressed in the next section), Appellants misapprehend the controlling precedent. Although the second step in the *Alice/Mayo* framework is termed a search for an "inventive concept," "the concept of inventiveness [under § 101] is distinct from that of novelty" and "[t]he inventiveness inquiry of § 101 should therefore not be confused with the separate novelty inquiry of § 102 or the obviousness inquiry of § 103." *See Amdocs (Israel) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1312 (Fed. Cir. 2016). Instead, the analysis is based on a search for "'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*, 134 S. Ct. at 2355. A novel and nonobvious claim directed to a purely abstract idea is, nonetheless, patent-ineligible. *See Mayo*, 132 S. Ct. at 1304. For similar reasons, we are also not persuaded of error by Appellants' argument that the Examiner's rejection is undermined by the Examiner's failure to "simply take official notice that the claimed elements were well known in the art." (App. Br. 18.)

Appellants also argue the Examiner's rejection is contrary to the Federal Circuit's decision in *BASCOM Global Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016). (Reply Br. 5–6.) In particular, Appellants assert *BASCOM* stands for the proposition that claims may recite use of known conventional pieces (such as known computer components) and still qualify as patent eligible subject matter if they are arranged in a non-conventional and non-generic manner. (*Id.* at 6–7)

Appellants' argument is not persuasive of Examiner error. Appellants' claims stand rejected because they are directed to abstract ideas, however allegedly novel or detailed, and, accordingly, the fact that the ideas are implemented in software using generic computer components merely as tools only further underscores the ineligibility of those claims. As the Federal Circuit recently explained in *SAP America*: "In accordance with the Supreme Court's conclusion in *Alice*, . . . this court has ruled many times that 'such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea.'" *SAP America*, 890 F.3d at 1023 (quoting *Electric Power*, 830 F.3d at 1355; *citing Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1055–56 (Fed. Cir. 2017); *Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1374–75 (Fed. Cir. 2017); *Secured Mail Solutions LLC v. Universal Wilde, Inc.*, 873 F.3d 905, 909 (Fed. Cir. 2017)). The court in *SAP America* further observed:

> Under those decisions, an invocation of such computers and networks is not enough to establish the required "inventive concept" in application. Indeed, we think it fair to say that an invocation of already-available computers that are not themselves plausibly asserted to be an advance, for use in carrying out improved mathematical calculations, amounts to a

recitation of what is "well-understood, routine, [and] conventional."

SAP America, 890 F.3d at 1024 (quoting *Mayo*, 566 U.S. at 73).

In that regard, the claims here are critically different from the claims at issue in *BASCOM*, in which the claims were deemed patent-eligible "because they were directed to improvements in the *way* computers and networks carry out their basic functions." *SAP America*, 890 F.3d at 1022 (citing *BASCOM*, 827 F.3d at 1348–49). In particular, in *BASCOM*, an inventive concept was found in the ordered combination of limitations providing for "the installation of a filtering tool at a specific location, remote from the end users, with customizable filtering features specific to each end user." *BASCOM*, 827 F.3d at 1350. In contrast, Appellants' claims are properly characterized as ones in which generic computer technology is used merely as a tool to implement the claimed abstract ideas. Indeed, Appellants make no attempt to argue that their claims represent an improvement to computer functionality, nor do Appellants assert that the underlying computer technology operates in an unconventional manner in carrying out the claimed invention.

For the foregoing reasons, we are not persuaded the Examiner erred in rejecting the pending claims, which are all argued collectively, as directed to patent-ineligible subject matter under 35 U.S.C. § 101.

B.   *Section 103(a) Rejections*

1.   *Claims 1, 4–7, 10–13, 16–18, 20, 22, and 24*

The Examiner finds Thomas teaches most of the limitations of representative claim 1 including "determining the dynamic component of the offer" (Final Act. 3–5), but the Examiner further finds

> [Thomas] does not specifically state that the determining is done by calculating an expected benefit to be obtained by sending an CRM offer instance instantiated from the CRM offer template to customers based upon historical responses, offer cost, and the plurality of legal values of the first and second variable field, wherein the calculating includes adjusting the benefit obtained by a positive response based upon the historical responses and the adjusting includes applying a function to combine probabilities associated with the first and second variable fields.

(*Id.* at 5.) With regard to that limitation, the Examiner relies on Boyd for teaching that "it is known to determine the dynamic components by calculating an expected benefit to be obtained[,]" as recited in claim 1.[4] (*Id.* at 6 (citing Boyd 4:8–46, 5:4–16, 5:45–54, 6:26–56, 14:45–16:24, 17:1–29); *see also* Ans. 26–28 (citing 4:8–46, 4:64–5:3, 5:34–44, 5:45–54, 13:40–52, 6:64–7:23, 13:1–14:19).) We agree the Examiner's findings are supported by the cited teachings, and we adopt the Examiner's findings as our own.

Appellants argue the Examiner's reliance on Boyd is in error because the passages of Boyd cited by the Examiner "do not disclose: (1) that probabilities are associated with first and second variable fields of a CRM offer template or (2) that adjusting the benefit obtained by a positive response includes 'applying a function to combine probabilities associated with the first and second variable fields' as claimed." (App. Br. 25.) We are not persuaded of error. Read in their entirety, Appellants' arguments

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[4] Appellants collectively argue the rejection of claims 1, 4–7, 10–13, 16–18, 20, 22, and 24 with regard to the Examiner's obviousness rejections of claim 1 under 35 U.S.C. § 103(a). (App. Br. 18–26.) Separate patentability is not argued for independent claims 7 or 13 or dependent claims 4–6, 10–12, 16–18, 20, 22, or 24. (*Id.*) Therefore, based on Appellants' arguments, we decide the appeal of claims 1, 4–7, 10–13, 16–18, 20, 22, and 24 based on claim 1 alone. *See* 37 C.F.R. § 41.37(c)(1)(iv).

amount to no more than large block quotes of the Examiner's cited portions
Boyd (*id.* at 19–25 (quoting Boyd 4:8–46, 5:4–16, 5:45–54, 6:26–56, 14:45–
16:24, 17:1–29)), followed by a conclusory statement that those passages
from Boyd do not disclose or render obvious the disputed limitation (*Id.* at
25; *see also* Reply Br. 7–12 (quoting Boyd 6:64–7:23, 13:1–14:19)). Such
conclusory attorney assertions have little or no value in identifying the
Examiner's alleged error, and, consequently, have little persuasive value.
See 37 C.F.R. § 41.37(c)(iv) ("A statement which merely points out what a
claim recites will not be considered an argument for separate patentability of
the claim."); *see also In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011).
And contrary to Appellants' protestations that "it is impossible to 'prove a
negative'" (App. Br. 26), Appellants fail to persuasively rebut the
Examiner's findings—which, as noted above, we agree are supported by the
cited teachings.

For the foregoing reasons, we are not persuaded of error in the
Examiner's 35 U.S.C. § 103(s) rejection of claim 1 or of claims 4–7, 10–13,
16–18, 20, 22, and 24, argued collectively with claim 1. We, therefore,
sustain the rejection of those claims.

2.   *Claims 19, 21, and 23*

In rejecting claim 19,[5] the Examiner applies similar reasoning as
applied to claim 1. (Final Act. 7–10.) With regard to the formula recited in

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[5] Appellants collectively argue the rejection of claims 19, 21, and 23 with
regard to the Examiner's obviousness rejections of claim 19 under 35 U.S.C.
§ 103(a). (App. Br. 26–29.) Separate patentability is not argued for
independent claims 21 or 23. (*Id.*) Therefore, based on Appellants'
arguments, we decide the appeal of claims 19, 21, and 23 based on claim 19
alone. *See* 37 C.F.R. § 41.37(c)(1)(iv).

claim 19, the Examiner states that it is interpreted "to be the expected number of sales of a promotional item [P(G, O[vi])*B(o[vi])] minus the cost of delivering the offer." (*Id.* at 10.) Appellants argue the Examiner's interpretation of the formula is in error, stating: "[A]s explicitly defined in the claim itself, 'P(G,O[*vi*]) is the fraction of positive historical responses of customers in customer group G to CRM offer O[*vi*],' and B(O[*vi*]), the term multiplied by P(G,O[*vi*]), is 'the benefit attained when CRM offer O[*vi*] is accepted by an individual customer.'" (App. Br. 28.)

We are persuaded of error. The Examiner's characterization of claim 19 as merely "claiming calculating the maximum expected benefit by taking the *price of the product times* the expected sales and subtracting out the sales cost and thus arriving at the expected profit (maximum expected benefit)" (*see* Ans. 28 (emphasis added)) is not supported by the language of the claims. As Appellants note, claim 19 requires multiplying the "fraction of historical positive responses of customers in customer group G to CRM offer O[*vi*]" by "the benefit attained when CRM offer O[*vi*] is accepted by an individual customer." (App. Br. 36 (Claims App'x).) The Examiner does not adequately explain how the claimed "benefit attained" when the particular CRM offer is "accepted by an individual customer," as recited in claim 19, reads on merely the price of the product, as purportedly taught by Boyd.

Because the Examiner's findings regarding claim 19 are premised on an untenable construction of the claims, we do not sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 19, nor do we sustain the rejection claims 21 and 23, which contain the same limitation and are rejected on the same basis.

DECISION

The Examiner's 35 U.S.C. § 101 rejection of claims 1, 4–7, 10–13, and 16–24 is affirmed.

The Examiner's 35 U.S.C. § 103(a) rejection of claims 1, 4–7, 10–13, 16–18, 20, 22, and 24 is affirmed.

The Examiner's 35 U.S.C. § 103(a) rejection of claims 19, 21, and 23 is reversed.

Because we have affirmed at least one ground of rejection with respect to each claim on appeal, the Examiner's decision is affirmed. *See* 37 C.F.R. § 41.50(a)(1).

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

AFFIRMED