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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WILLIAM CLAY, KRISTEN MOUGEOT,
BRENTLY BARROW, BRIDGET FARRIS,
STEVE MANATT, and CHARLES ZINSMEYER

Appeal 2019–003515
Application 14/338,215
Technology Center 3600

BEFORE ERIC B. GRIMES, RICHARD M. LEBOVITZ, and
TAWEN CHANG, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

The Examiner rejected the claims under 35 U.S.C. § 102 as anticipated, under 35 U.S.C. § 103 as obvious, and under 35 U.S.C. § 101 as reciting patent ineligible subject matter. Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner’s decision to reject the claims.¹ We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Acxiom Corporation. Appeal Br. 2.

STATEMENT OF THE CASE

The claims stand finally rejected by the Examiner as follows:

Claims 1–9, 12–17, and 20–22 under 35 U.S.C. § 103 as obvious in view of Lewis (US 2011/0066476 A1, published Mar. 17, 2011) (“Lewis”) and Dagnino (US 2007/0150293 A1, published Jun. 28, 2007) (“Dagnino”).
Final Act. 8.

Claims 18 and 19 under 35 U.S.C. § 102(a)(1) as anticipated by Lewis. Final Act. 23.

Claims 1–9 and 12–22 under 35 U.S.C. § 101 because the claimed invention is directed to a judicial exception. Final Act. 3.

Claim 1 is representative of the rejected claims and reads as follows:

1. A computer-implemented method for self-assessment of the marketing capability of an organization, comprising the steps of:
 - a. receiving at the processor a pre-defined configuration from a normative database, wherein the normative database comprises peer group average data and peer group leader data for a plurality of business organizations, and wherein the normative database is dynamically updated with additional peer group average data and peer group leader data for a plurality of business organizations over time;
 - b. generating at a processor a set of business challenges based on the pre-defined configuration and building a computer display of business challenges outputting the set of business challenges;
 - c. receiving at the processor a selection instruction selecting at least a subset of the set of business challenges;
 - d. retrieving from a body of knowledge (BOK) a plurality of attributes for each of the business challenges in the at least a subset of business challenges, wherein the BOK comprises a global, multi-channel database comprising a plurality of business challenges and business attribute definitions and questions associated with each of the plurality of business

challenges, and further comprising sets of industry knowledge, channel knowledge, and geography knowledge;

e. sending from the processor each of the plurality of attributes to a computer display of attributes, wherein the computer display of attributes comprises a selection tool for selecting a current attribute maturity level for each of the attributes on the computer display of attributes;

f. receiving at the processor the current attribute maturity level for each of the plurality of attributes;

g. receiving at the processor a targeted desired state from the normative database; and

h. generating a report comprising an indicator of current maturity for each of the at least a subset of the set of business challenges and the targeted desired state, and generating a computer display report.

§ 103 REJECTION

Claim 1

Claims 1–9, 12–17, and 20–22 stand rejected over Lewis and Dagnino. Lewis describes “an automated system and method for managing the delivery of management knowledge and other resources.” Lewis, Abstract. Lewis also teaches that its invention “includes the design of assessment instrument(s) based on affiliate/service provider objectives. Assessments include the evaluation and scoring on seven management practices.” *Id.* Lewis explains that these “practices and the Management Maturity Model (M3) are used to help users understand their business’ or organization’s maturity level.” *Id.* Similar to Lewis, claim 1 is also directed to an assessment tool (“computer-implemented method for self-assessment”) and also determines the maturity level of the organization (“f. receiving at the processor the current attribute maturity level for each of the plurality of attributes”).

The Examiner found that Lewis describes steps a), b), and d)–h) of claim 1. Final Act. 8–12. The Examiner found that Lewis does not describe step c) of claim 1 (“c. receiving at the processor a selection instruction selecting at least a subset of the set of business challenges”), but found that Dagnino describes this limitation. Final Act. 12. The Examiner determined it would have been obvious to one of ordinary skill in the art to use Dagnino’s selection step in Lewis for its expected function. Final Act. 12–13.

Does Lewis describe step a) of claim 1?

Appellant contends that Lewis does not describe step a) of claim 1 in which the “normative database . . . is dynamically updated with additional peer group average data and peer group leader data for a plurality of business organizations over time.” Appeal Br. 23 (emphasis omitted).

The Examiner found step a) of claim 1 to be described in paragraphs 27 and 41 of Lewis. Final Act. 8–9. These paragraphs are reproduced below:

FIG. 5 is an illustration of the above-noted implementation showing the relationships between the server, where the software is stored, and the various roles that the system manages interaction between, according to at least one embodiment of the present invention. As shown, the present invention is generally implemented in a server 100 that is accessed by an administrator 102, an affiliate 104, an advisor 108 and a user 110. As will be explained in further detail hereinbelow, the administrator 102 accesses the server 100 to provide all the back-end data in the tool (i.e. inputs the assessment questions, establishes the criteria for resources, develop codes for affiliates, set-up affiliate, advisor and user profiles, and updates content on the web site). Affiliates 104 use the system to view and manage their affiliate members

(users) and can also use the system to assign and manage affiliate advisors. Affiliates may have their own resources and databases that may[]be made available on their website 106 through the system. The advisors 108 use the system to view assessment results and prescribe resources, reports and proposals to users 110. The users 110 interface with the system server 100 to take assessments, receive knowledge and other resources, and request reports and request other consulting assistance. As noted above, users 100 may also access affiliate websites 106 if such access is given to the user depending on their relationship to the affiliate and/ or their level of subscription.

Lewis ¶ 27.

At Step (31), after each assessment is completed and the data is calculated, the assessment results are stored in the system database to use for several purposes: matching up criteria definitions to the results to determine knowledge distribution, exporting data, and presenting the changes results associated with average and top scores.

Lewis ¶ 41.

Paragraph 27 describes a server that “provide[s] all the back-end data in the tool.” The tool is part of the “systems and methods for assessing an organization’s management maturity by evaluating its current management processes against a set of standards.” Lewis ¶ 2. We understand the “back-end data” on the server which is accessed by the tool to meet the claimed limitation of a “database” as recited in claim 1. Lewis specifically describes databases (“Affiliates may have their own resources and databases that may[]be made available on their website 106 through the system.”). *Id.* ¶ 27 (emphasis omitted). The database can be accessed through the internet. *See* Lewis ¶¶ 18, 27.

The claim requires that the database “is dynamically updated with additional peer group average data and peer group leader data.” We address this limitation below, beginning with the discussion of who are the users of Lewis’s database.

Lewis explains that “Affiliates 104 use the system to view and manage their affiliate members (users).” Lewis ¶ 27. Lewis doesn’t provide an express definition of “affiliate.” However, in the context of Lewis’s disclosure, we understand “affiliate” to be a business organization using the assessment system “for evaluating an organization’s level of maturity, and management capability and practices to complete a desired change successfully.” Lewis ¶ 18. The affiliate has affiliate members or users who use the system. Lewis ¶ 27. “The users 110 interface with the system server 100 to take assessments, receive knowledge and other resources, and request reports and request other consulting assistance.” *Id.* Lewis explains that the users are assessed by collecting information from them (“The invention embodies an on-line assessment by collecting information from users, using the responses to the assessment to calculate a result.”). Lewis ¶¶ 18, 32–34 (describing the user taking an assessment online and the system performing a calculation based on the assessment question responses).

Lewis further explains that after the assessment is completed, “the data is calculated” and “the assessment results [for the affiliate users] are stored in the system database to use for several purposes: matching up criteria definitions to the results to determine knowledge distribution, exporting data, and presenting the changes results associated with *average and top scores*.” Lewis ¶ 41 (emphasis added). The latter, as explained

below, correspond to the claimed “peer group average data and peer group leader data.”

Lewis teaches that “[i]n addition to the user’s results, the user can also be displayed an average score of all users who took the assessment and the highest score of all users.” Lewis ¶ 35. The “average and top scores” are the scores of users of an affiliate organization because the users register and access an affiliate website to take the assessment. Lewis ¶ 27. The Examiner found that the users constitute a “peer group.” Final Act. 9. The term “peer” means “a person of the same legal status” or “a person who is equal to another in abilities, qualifications, age, background, and social status.”² Thus, the Examiner reasonably found that the users of the same affiliate organization are in the same “peer group” (Ans. 39) because each user of the affiliate would be considered equal with respect to their membership in the affiliate. The average and top scores therefore correspond to the claimed “peer group average data and peer group leader data.”

Appellant argues “there is no teaching or suggestion in Lewis of a normative database that is dynamically updated with additional peer group average data and peer group leader data for a plurality of business organizations over time.” Appeal Br. 23 (emphasis omitted). Appellant acknowledges that in paragraph 27 of Lewis “content” is updated, but argues that the content is undefined and there is “no mention of any update of peer group average data or peer group leader data.” *Id.* at 24.

As explained above, Lewis teaches peer group average and leader data based on the users of an affiliate. Appellant recognizes that this calculation

² <https://www.dictionary.com/browse/peer> (lasted accessed Jan. 1, 2020).

is made, but argues that “[c]omparing a business’s maturity in various categories to all other businesses, rather than comparing only to businesses in the same peer group, is of little or no value to the business.” Appeal Br. 24.

We are not persuaded. Appellant did not explain why the calculation of average and top scores is for users of *all* businesses, and not only users in the same peer group of the affiliate organization or affiliates of the same type of business. Indeed, in paragraph 27, which is cited by the Examiner, Lewis teaches that “Affiliates may have their own resources and databases that may[]be made available on their website 106 through the system.” Lewis ¶ 27. When the affiliate uses its own database, the resulting calculation of user average and top score would reasonably be understood to represent the users of the affiliate. *See also* Lewis ¶ 24 (“Provide additional targeted assessments to a user — assessments can be assigned to a code so that assessment will only be available to users who have a matching code. This allows the dedicating of individual resources to affiliates and those users associated with that affiliate.”). Lewis also teaches that “the system can then export the results and the data through the use of queries for analysis across a large group of users and across a large group of affiliates.” Lewis ¶ 18 (referenced in Ans. 39). Because Lewis is interested in comparing peer group scores, as evidenced by Lewis’s calculation of the average and top scores for the peers of a single affiliate organization, it would be obvious to one ordinary skill in the art that to compare peer group scores of related business organizations when querying data “across a large group of users and across a large group of affiliates.” Lewis ¶ 18. Accordingly, we are not persuaded by Appellant’s argument that Lewis

compares “a business’s maturity in various categories to all other businesses, rather than comparing only to businesses in the same peer group.” Appeal Br. 24. Appellant recognized the disclosure of Lewis in paragraph 35 of average and top scores,³ but did not consider it in the context of the complete teachings in Lewis. Appeal Br. 24–25.

As to the disclosure in Lewis of updating of the “content” (Lewis ¶ 27), the user scores are content on the affiliate’s server, and thus would generally be understood to be part of the content which is updated. Moreover, if the average and top scores are to have meaning, they must be updated periodically to determine the actual average and top scores as more users take the assessment. The scores would not be average and top scores, if they did not represent all users who use the assessment instrument. Appellant did not provide a definition of “dynamically updated” with the additional data that would differentiate the updating of the database content to determine current user average and top scores. Appeal Br. 24.

Does Dagnino describe step c) of claim 1?

Appellant argues that Dagnino does not describe step c of claim 1 of “receiving at the processor a selection instruction selecting at least a subset of the set of business challenges.”

Appellant contends that the “process areas” cited by the Examiner as being equivalent to the business challenges of claim 1 are, in fact, “wholly different.” Appeal Br. 26. To make this distinction, Appellant refers to

³ Appellant cited paragraph 34, but the cited disclosure is from paragraph 35 of Lewis.

paragraph 21 of Dagnino. *Id.* Paragraph 21 of Dagnino is reproduced below:

At present, the main disciplines that CMMI covers include: (1) systems engineering; (2) software engineering; (3) integrated product and process development; and (4) supplier sourcing. These four disciplines described in the CMMI are addressed or defined by what are referred to as “Process Areas” associated with each discipline. A Process Area may be defined as a *cluster of related best practices* in an area that, when implemented collectively, satisfies a set of goals considered important for making significant improvement in that Process Area.

Dagnino ¶ 21 (emphasis added).

Appellant argues:

A process area is thus a cluster of best practices for an area that are intended to be implemented collectively by the business. By contrast, *the business challenges of claim 1 are not a cluster of anything*; they are individual business challenges that are not grouped together by area or by any other criteria. In the invention of claim 1, the user is able to select the specific business challenges of interest to that user.

Appeal Br. 26 (emphasis added).

This argument is not persuasive. Claim 1 recites in step d) that “a plurality of attributes for each of the business challenges” is retrieved. Thus, each business challenge comprises a plurality of attributes, which could be alternatively characterized as a “cluster” of attributes because they are a group of attributes associated with same business challenge. Appellant did not distinguish the claimed business challenges,⁴ and claimed attributes,

⁴ Figure 4 of the Specification lists examples of Business Challenges: Analytics, Consumer Connections, Data Quality, Engagement Across

from the process areas⁵ and best practices described by Dagnino. Indeed, Dagnino’s “best practices” serve the same function as the claimed “attributes.” Specifically, Dagnino teaches that the “best practices” are set as goals for making improvements in a Process Area. *See* Dagnino ¶ 21. Similarly, the Specification teaches that the levels of each attribute are measured as a “level of maturity” and are considered as relevant for meeting a desired business challenge, i.e., a goal for improving the maturity level of the business challenge. Spec. ¶¶ 43 (“The integration of attribute ranking definitions from BOK 12 aids the user in accurately identifying the level for each of the attributes being considered as are relevant to the most pressing business challenges for the user’s organization.”), 45 (“After the user has scored the level of maturity for each of the attributes 82 on associated attributes page 80 and clicked the attribute page next button 92, the calculations are performed in order to determine a marketing maturity quotient (MMQ) for each of the selected business challenges.”), and 47 (“On slider bar display page 100, the user is requested to indicate how far the user wishes to advance the maturity of the user’s organization in the next one-year period, or other designated period, with respect to each of the selected business challenges.”).

Appellant argues that, in Dagnino, “once the user selects the process area using the GUI, the system then generates goals related to that process

Channels, Risk Management, Segmentation, Single View of consumers, Support Resources, and Technology Resources.

⁵ Dagnino discloses examples of process areas as Requirements Management 302, Project Planning 304, Project Monitoring and Control 306, Supplier Agreement Management 308, Measurement and Analysis 310, Process and Product Quality Assurance 312, Configuration Management 314. *See* Dagnino ¶ 24.

area. The user has no choice, however, in which goals are generated.”
Appeal Br. 26. Claim 1, however, does not require the selection of goals. Rather, the selection is of business challenges, which as discussed above, are the same as the process areas described in Dagnino. Appellant acknowledges that process areas are selected. Appeal Br. 26 (“once the user selects the process area”). Thus, Appellant’s argument regarding the selection of goals is unavailing because the claim does not require these to be selected. Appeal Br. 26–27.

For the foregoing reasons, we conclude that a preponderance of the evidence supports the Examiner’s determination that claim 1 is obvious in view of Lewis and Dagnino.

Claim 2

Dependent claim 2 is directed to the computer-implemented method of claim 1, “further comprising the step of calculating at the processor a marketing maturity quotient (MMQ) for each of the business challenges.” Appellant contends that Lewis does not teach this calculation. Appeal Br. 28. Appellant states that “claim 2 calls for the calculation of a new metric (the MMQ)” which is not taught or suggested in either Lewis or Dagnino. *Id.* at 29. Appellant also argues that the claims relate to marketing, and neither of the cited publications teaches or suggests “any application of capability maturity models to marketing in any manner.” *Id.* at 28–29.

The Examiner determined that Lewis at paragraph 34 and Figure 3 shows percentages that represent normalization, and which correspond to the MMQ calculation described in paragraph 45 of the Specification. Final Act. 13; *see also* Ans. 40–41. Appellant did not identify a defect in the

Examiner’s fact-finding or reasoning. Appellant’s only argument is that the value in Lewis is not applied to marketing. Appeal Br. 28–29. However, each of Lewis and Dagnino contain express statements that their methods are not limited to the disclosed embodiments. Lewis ¶ 104; *see also* Dagnino ¶ 57. Lewis describes various aspects of management that are assessed (customer relations, supplier/partner relations, business planning) (Lewis, Fig. 3) which would reasonably suggest marketing, e.g., in customer relations and business planning.

Claim 6

Dependent claim 6 is directed to the computer-implemented method of claim 3, reciting the following limitation (emphasis added):

wherein each of the MMQ for each of the subset of business challenges may comprise a not applicable value and wherein the step of calculating the MMQ for each of the subset of business challenges *comprises the step of generating the not applicable value for each of the business challenges* for which more than a threshold percentage of the associated plurality of attributes have the not applicable value.

The Examiner found that Lewis does not describe “the step of calculating the MMQ for each of the subset of business challenges comprises the step of generating the *not applicable* value for each of the business challenges” as recited in claim 6. Final Act. 14 (emphasis added). Citing paragraph 46, however, the Examiner found that Dagnino teaches using a “not applicable value” and determined it would have been obvious to have included such value in Lewis’s method. Final Act. 14–15. For clarity, paragraph 46 of Dagnino is reproduced below:

A Heuristic Appraisal Expertise KB 714 may also be accessed by the inference engine 708. The Heuristic Appraisal Expertise

KB 714 may contain heuristic knowledge of appraiser human experts that may help in the formulation of the subsequent or follow-on questions 716 that the system may asks [sic] the respondent or respondents after the initial seed questions 712 have been presented and responded to by the respondent or respondents or users. Based on the role and profile of the respondents there may be sets of Process Areas and questions that may be relevant to them. For example, if diagnostic activity is focused on members of a development organization answering questions, depending on the roles of the members, certain Process Areas will not apply while others will be relevant. In such cases, the Heuristic Appraisal Expertise KB 714 may guide the system 700 in identifying which Process Areas may be applicable. The questions for both the CMMI Process Areas KB 710 and the Heuristic Appraisal Expertise KB 714 may be organized according to the Process Areas and the questions may be triggered or generated based on the previous responses from the user or users.

Paragraph 46 of Dagnino describes triggering questions based on previous responses. While such trigger may relate to a “threshold” as recited in claim 6, there is no mention in this paragraph of using a “not applicable value” in the manner recited in the claim.

The Examiner, in response to Appellant’s argument regarding claim 6, cited the disclosure in paragraph 46 of Dagnino that “certain Process Areas will not apply while others will be relevant.” Ans. 42 (emphasis omitted). Dagnino teaches in this paragraph that the system may determine which process areas “may be applicable,” and that “the questions may be triggered or generated based on the previous responses from the user or users,” indicating that such questions may be involved in identifying additionally relevant “applicable” process areas. Dagnino ¶ 46. In other words, an answer to a question may trigger the presentation of additional questions from the same or different process area. However, this disclosure has not

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been adequately shown by the Examiner to use a “not applicable” value in the calculation of the MMQ. Dagnino’s disclosure is focused on identifying applicable process areas, not using a non-applicable value to calculate the maturity level of a business challenge as required by claim 6.

Claims 9 and 20

Appellant separately argues claims 9 and 20, but the arguments are the same as for claim 1. Appeal Br. 32. Thus, we find the arguments unpersuasive for the same reasons.

Summary

For the foregoing reasons, the obviousness rejection of claims 1, 2, 9, and 20 are affirmed. Separate arguments were not made for claims 2–5, 7, 8, 12–17, 21, and 22, these claims therefore fall with claim 1. 37 C.F.R § 41.37(c)(1)(iv). The obviousness rejection of claim 6 is reversed.

§ 102 REJECTION

Claims 18 and 19 stand rejected by the Examiner as anticipated by Lewis. Final Act. 23. Appellant makes the same unpersuasive arguments they did for claims 1 and 2. Appeal Br. 33. Consequently, we affirm the anticipation rejection of claims 18 and 19 for the same reasons.

§ 101 REJECTION

Under 35 U.S.C. § 101, an invention is patent-eligible if it claims a “new and useful process, machine, manufacture, or composition of matter.”

However, not every discovery is eligible for patent protection. *Diamond v. Diehr*, 450 U.S. 175, 185 (1981). “Excluded from such patent protection are laws of nature, natural phenomena, and abstract ideas.” *Id.* The Supreme Court articulated a two-step analysis to determine whether a claim falls within an excluded category of invention. *See Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 573 U.S. 208 (2014); *see also Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 566 U.S. 66, 75–77 (2012).

In the first step, it is determined “whether the claims at issue are directed to one of those patent-ineligible concepts.” *Alice*, *Alice*, 573 U.S. at 218–219. If it is determined that the claims are directed to an ineligible concept, then the second step of the two-part analysis is applied in which it is asked “[w]hat else is there in the claims before us?” *Id.* The Court explained that this step involves “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.” *Id.* (citing from *Mayo*, 566 U.S. at 75–77).

Alice, relying on the analysis in *Mayo* of a claim directed to a law of nature, stated that in the second part of the analysis, “the elements of each claim both individually and ‘as an ordered combination’” must be considered “to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *Id.*

The PTO has published revised guidance on the application of 35 U.S.C. § 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance*, 84 Fed. Reg. 50, 51–57 (2019) (hereinafter “Eligibility Guidance” and/or “Eligibility Guidance, 84 Fed.

Reg.”). This guidance provides additional direction on how to implement the two-part analysis of *Mayo* and *Alice*.

Step 2A, Prong One, of the 2019 Guidance, looks at the specific limitations in the claim to determine whether the claim recites a judicial exception to patent eligibility. In Step 2A, Prong Two, the claims are examined to identify whether there are additional elements in the claims that integrate the exception in a practical application, namely, is there a “meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” *See* Eligibility Guidance, 84 Fed. Reg. 54 (2. Prong Two).

If the claim recites a judicial exception that is not integrated into a practical application, then as in the *Mayo/Alice* framework, Step 2B of the Eligibility Guidance instructs us to determine whether there is a claimed “inventive concept” to ensure that the claims define an invention that is significantly more than the ineligible concept, itself. *See* Eligibility Guidance, 84 Fed. Reg. 56.

With these guiding principles in mind, we proceed to determine whether the claimed subject matter in this appeal is eligible for patent protection under 35 U.S.C. § 101.

Discussion

Claim 1 recites a “computer-implemented method for self-assessment of the marketing capability of an organization.” Following the first step of the *Mayo* analysis, we find that the claims are directed to a method, and therefore fall into one of the broad statutory categories of patent-eligible

subject matter under 35 U.S.C. § 101. We thus proceed to Step 2A, Prong One, of the Eligibility Guidance.

Step 2A, Prong One

In Step 2A, Prong One, of the Eligibility Guidance, the specific limitations in the claim are examined to determine whether the claim recites a judicial exception to patent eligibility, namely whether the claim recites an abstract idea, law of nature, or natural phenomenon.

The Examiner found that the claims are directed to an abstract idea, which the Examiner also identified as “organizing human activity.” Final Act. 3. The Eligibility Guidance lists “[c]ertain methods of organizing human activity,” including “advertising, marketing or sales activities or behaviors,” as one of the three groupings of abstract ideas. Eligibility Guidance, 84 Fed. Reg. 52.

Claim 1 is directed to a “computer-implemented method for self-assessment of the marketing capability of an organization.” The steps of the claims comprise generating and outputting business challenges (step b), receiving instructions for selecting a subset of business challenges (step c), retrieving and displaying attributes of the business challenges (steps d and e), receiving the maturity level for the attributes (step f), and receiving a targeted desired state (step g). The method uses peer group data from the organization to determine the targeted desired state (step a and step g), i.e., the level of capability the organization desires to achieve for each business challenge. Spec. ¶¶8–9. Each of these steps are part of the self-assessment process of measuring marketing capability, which are integral to the abstract idea of organizing human activity.

The self-assessment of the attributes of each business challenge is performed by individual users of the organization. Spec. ¶¶ 7 and 16–20; *see also* Appeal Br. 17. Examples of business challenges are analytics, consumer connections, data quality, engagement across channels, and risk management. Spec., Fig. 4. Examples of attributes are offline data collection/assembly, analytic skillset, online data collection, and analytics strategy. Spec., Fig. 5.

After steps a–g are accomplished, a “report” is generated “comprising an indicator of current maturity for each of the at least a subset of the set of business challenges and the targeted desired state” (step h). The claimed method therefore is a self-assessment of the “marketing capability” of users of the organization.

The Specification explains that capability maturity models (“CMM”) for measuring an organization’s “capability” were first developed “in the 1980’s for the purpose of evaluating the capability of software contractors working for the U.S. Department of Defense.” Spec. ¶ 4. The Specification further teaches that “[t]he successful deployment of CMMs in these various areas has led to significant improvement in the measured processes by identifying the level of maturity and further by identifying those steps required in order for an organization to advance to a greater level of capability in the areas measured.” *Id.* The Specification describes the “capability framework” of these models as “a specific type of analytical tool that provides a common structure to measure the current performance of capabilities, identify desired performance, determine the gaps between current and desired performance, and perform a series of diagnostic and analytical tests to establish priorities for capability improvement.” *Id.* ¶ 5.

Thus, the claimed method of self-assessing “marketing capability of an organization” is directed to organizing human activity involved in marketing because it assesses the capability of the organization based on the users who take the self-assessment test. The 2019 Eligibility Guidance lists “marketing or sales activities” as an example of patent-ineligible methods of organizing human activity. *See* Eligibility Guidance, 84 Fed. Reg. 52 (under grouping “(b)”).

Appellant contends that the claimed method is not directed to organizing human activity because the “conventional method of performing any type of capability maturity model analysis is for human experts to perform the process by hand.” Appeal Br. 17. Appellant argues that “[a]mong the advantages of the applicant’s invention is that the intervention of human experts to perform the analysis is eliminated.” *Id.* (emphasis omitted).

This argument is not persuasive. Appellant did not explain how executing the capability maturity model on a computer makes it any less directed to the abstract idea of organizing human activity. The Court in *Alice* made clear that a claim directed to an abstract idea does not move into section 101 “eligibility territory” by “merely requir[ing] generic computer implementation.” *Alice*, 573 U.S. at 221; *see also buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014). Therefore, while we acknowledge Appellant’s statement that “invention is directed to a programmed machine and a programmed machine-implemented method that eliminates human activity” (Appeal Br. 18), the implementation of the method on a computer does not, itself, make it eligible for a patent under §

101 and certainly does not make it any less a method of organizing human activity.

Step 2A, Prong Two

Prong Two of Step 2A under the 2019 Eligibility Guidance asks whether there are additional elements that integrate the exception into a practical application. As in the *Mayo/Alice* framework, we must look at the claim elements individually and “as an ordered combination” to determine whether the additional elements integrate the recited abstract idea into a practical application. As discussed in the Eligibility Guidance, “[a] claim that integrates a judicial exception in a practical application will apply, rely on, or use the judicial exception in a manner that places a meaningful limit on the judicial exception, such that the claim is more than a drafting effort designed to monopolize the judicial exception.” Eligibility Guidance, 84 Fed. Reg. 54.

Integration into a practical application is evaluated by identifying whether there are *additional elements* individually, and in combination, which go beyond the judicial exception. Eligibility Guidance, 84 Fed. Reg. 54–55. As explained in the October 2019 Update to Subject Matter Eligibility,⁶ “first the specification should be evaluated to determine if the disclosure provides sufficient details such that one of ordinary skill in the art would recognize the claimed invention as providing an improvement.” PEG Update 12. According to the PEG Update, the “specification need not

⁶ Available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf (last accessed Nov. 15, 2019) (“PEG Update”).

explicitly set forth the improvement, but it must describe the invention such that the improvement would be apparent to one of ordinary skill in the art.”

Id.

The Specification describes how “CMMs have been used in industry to achieve business improvement for decades,” but states that “attempts to use CMMs for marketing analysis have been limited in their utility because they are not based on objective criteria.” Spec. ¶ 7. To address this problem, the Specification describes using a normative database (step a of claim 1) and a body of knowledge database (“BOK”) (step d of claim 1). Spec. ¶¶ 8, 27. Each of these elements constitutes information. “Claim limitations directed to the content of information and lacking a requisite functional relationship are not entitled to patentable weight because such information is not patent eligible subject matter under 35 U.S.C. § 101.” *Praxair Distribution, Inc. v. Mallinckrodt Hospital Products IP Ltd.*, 890 F.3d 1024, 1032 (Fed. Cir. 2018). To be given patentable weight, the printed matter must be “functionally related to the substrate on which the printed matter is applied. E.g., *In re DiStefano*, 808 F.3d 845, 848 (Fed. Cir. 2015); *In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983).” *Praxair*, 890 F.3d at 1031–1032. In this case, while the information in the database is used to assess the organization’s marketing capability, it does not have the requisite functional relationship to the substrate because it does not change how the method is performed. In contrast, in *Gulack*, where a band was printed with digits, the court found that the digits imparted a functional relationship to the band because the printed digits enabled the band to display various aspect of number theory. *See Gulack*, 703 F.2d at 1383, 1385, 1387 (“the digits exploit the endless nature of the band.”). The

normative and BOK databases do not have a functional relationship to the substrate on which they are stored as the digits did in *Gulack*.

Appellant argues, however, that the normative and BOK databases “represent non-abstract elements, despite the fact that they are implemented in software, because the structure of these elements themselves is distinct from the ordinary, conventional method of implementing a database.”

Appeal Br. 16. Appellant describes how the BOK “is able to organize the various capabilities necessary to meet multi-channel challenges.” *Id.*

Appellant explains that utilizing the BOK “for generating the appropriate questions related to business challenges, and then utilizing the industry data from the normative database, it is possible to generate a maturity report that also includes comparisons with industry (i.e., peer) norms and industry leaders.” *Id.* Appellant also identifies the dynamic updating of the normative database as “technological structure of the invention itself.” *Id.* at 16–17. Appellant concludes that “just as with the database structure” in *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327 (Fed. Cir. 2016), “the structure of the present invention is non-conventional and leads to improvements in the function of the technological system as a whole.”

Appeal Br. 17.

Appellant’s arguments are not persuasive.

In *Enfish*, the claims were directed to a data storage and retrieval system for a computer memory. *Enfish*, 822 F.3d at 1336. The system comprised a system for configuring the memory according to logical table, where the logical table included:

a plurality of logical rows, each said logical row including an object identification number (OID) to identify each said logical

row, each said logical row corresponding to a record of information;

a plurality of logical columns intersecting said plurality of logical rows to define a plurality of logical cells, each said logical column including an OID to identify each said logical column; and

means for indexing data stored in said table.

Id.

The court found that the claimed “self-referential table functions differently than conventional database structures.” *Enfish*, 822 F.3d at 1337. The court found the claims were not simply directed to the concept of organizing information, but instead “are directed to an improvement in the functioning of a computer.” *Id.* at 1338. Specifically, the court found that “self-referential table recited in the claims on appeal is a specific type of data structure designed to improve the way a computer stores and retrieves data in memory.” *Id.* at 1339.

Here, we have not been directed to disclosure in the Specification that describes a different structure for the BOK and normative databases. Appellant explains how the databases are *used* differently to achieve the desired result of determining maturity levels and a targeted desired state, but Appellant does describe not how the database structures improve the functioning of the computer as they did in *Enfish*. Appeal Br. 16.

Appellant contends that the claims are significantly more because the claims recite “unique, unconventional architectural elements” which include the BOK and normative databases which “enable the dynamic, evolving system to perform the functions of the claimed invention in an unconventional manner.” Appeal Br. 20. Appellant points out that “the normative database is dynamic, such that the peer group norms and peer

group leader data are changing with each use of the overall system. The system thus grows in complexity and accuracy over time.” *Id.* Appellant cites *Amdocs (Israel) Limited v. Openet Telecom, Inc.*, 841 F.3d 1288 (Fed. Cir. 2016) to support this argument. Appeal Br. 18–19.

In *Amdocs*, the representative claim was directed to “[a] computer program product embodied on a computer readable storage medium for processing network accounting information.” *Amdocs*, 841 F.3d at 1299. The claim comprised “computer code for using the accounting information with which the first network accounting record is correlated to enhance the first network accounting record.” *Id.* The court construed the term “enhance” to invoke the “invention’s distributed architecture” which the court found was “a critical advancement over the prior art” because it “reduce[s] congestion in network bottlenecks but still allows the data to be accessible from a central location.” *Id.* at 1300. The court explained that the claim “entails an unconventional technological solution (enhancing data in a distributed fashion) to a technological problem (massive record flows which previously required massive databases)” which “necessarily requires that these generic components operate in an unconventional manner to achieve an improvement in computer functionality.” *Id.* at 1300–1301.

Appellant asserts that the rejected claims, like those in *Amdocs*, have an unconventional architecture to improve computer function. Appeal Br. 2–21. However, the only improvement that Appellant has guided us to is in how the databases are used to perform the self-assessment survey. Appeal Br. 16 (The BOK “is able to organize the various capabilities necessary to meet multi-channel challenges;” utilizing BOK “for generating the appropriate questions related to business challenges, and then utilizing the

industry data from the normative database, it is possible to generate a maturity report that also includes comparisons with industry (i.e., peer) norms and industry leaders.”). Appellant has not identified how the architecture of the databases is different from conventional databases nor does Appellant identify the technological problem solved by the database which improves computer or internet function. The problem addressed by the claims, as explained in the Specification, is improving business assessment using the databases in a self-assessment tool. Spec. ¶ 8. The steps involving the use of the databases are integral to the abstract idea of organizing human activity. As discussed above, an additional element, beyond the abstract idea of organizing human activity, is necessary to integrate the idea into a practical application. *See supra* at pp. 16–17, 21. The improvement asserted by Appellant is to the content of the databases and their application to assessing marketing capability. Appeal Br. 16. The latter represent the abstract idea, itself, and therefore cannot serve as the “additional element” necessary to integrate the abstract idea into a practical application.

Appellant further argues:

In the present case, the claims are also an ordered combination that achieves functionality greater than that of its individual components because of a non-generic arrangement. In creating the presently claimed invention, the inventors combined a body of knowledge (BOK) and normative database in a particular arrangement so that the system dynamically improves its function over time as the invention is applied to more and more organizations.

Appeal Br. 21.

However, Appellant has not identified an arrangement of the system that is responsible for the dynamic improvement in function to take place

over time. The claim recites “wherein the normative database is dynamically updated with additional peer group average data and peer group leader data for a plurality of business organizations over time.” The step does not recite how the dynamic updating is achieved. Rather, only the result is claimed. As discussed in *McRO*, the “abstract idea exception has been applied to prevent patenting of claims that abstractly cover results where ‘it matters not by what process or machinery the result is accomplished.’ [*O’Reilly v. Morse*, 56 U.S. 62, 113, (1853)]; see also *Mayo*, 132 S.Ct. at 1301.” See *McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314 (Fed. Cir. 2016). *McRO* stated that therefore, a court must “look to whether the claims in these patents 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.” *McRO*, 837 F.3d at 1314. In this case, while the dynamic updating of the normative database (step a) may facilitate the self-assessment, the claim does not require it to be executed in any specific manner.

The claimed steps, as a whole, recite the desired result, but not specific rules that would deter preemption of the abstract idea of organizing human activity. In *McRO*, the court held that the “limitations in claim 1 prevent preemption of all processes for achieving automated lip-synchronization of 3–D characters.” *McRO*, 837 F.3d at 1315. The court explained that “[t]he specific structure of the claimed rules would prevent broad preemption of all rules-based means of automating lip synchronization.” *Id.* Here, the steps in rejected claim 1 are recited in such general terms – “dynamically updated” (step a), generating and receiving

business challenges and a subset of challenges (steps b and c), receiving attributes from a BOK (step d), receiving attributes and maturity levels for attributes (steps e and f) – that generating a report based on such steps would preempt the abstract idea embodied in the claims. The step of using the normative database by “g. receiving at the processor a targeted desired state from the normative database” is also stated as a result and does not explain how the desired state is derived from the database. Thus, the claim limitations that led to the claims in *McRO* being held patent-eligible are not present here.

Appellant has not provided sufficient evidence that the computer functionality is improved or that the databases are arranged in unique combination to have solved a technological problem. Rather, the claims in this appeal are deficient for the same reasons as in *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281 (Fed. Cir. 2018). As explained by the court:

[T]he asserted claims are directed to the abstract idea of considering historical usage information while inputting data. . . . Claim 1 of the ’699 patent recites a method of indexing wherein a user adds data to a database using “a mechanism for posting the data as parametized items” after receiving “summary comparison usage information” about parameters and values selected by prior users. ’699 patent col. 10 l. 64–col. 11 l. 10. *BSG Tech* does not purport to have invented database structures that allow database users to input item data as a series of parameters and values. . . . Rather, the claim’s “focus” is guiding database users by presenting summary comparison information to users before they input data. . . . This is not a method “necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of” wide access databases. *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014).

BSG Tech, 899 F.3d at 1286.

The benefits described by Appellant – dynamically updating a normative database and the BOK database – “are not improvements to database functionality. Instead, they are benefits that flow from performing an abstract idea in conjunction with a well-known database structure.” *Id.* at 1288.

Accordingly, for the foregoing reason, we conclude that the abstract idea of organizing human activity is not integrated into a practical application.

Step 2B

Because we determined that the judicial exception is not integrated into a practical application, we proceed to Step 2B of the Eligibility Guidance, which asks, as in the *Mayo/Alice* framework, whether there is an inventive concept. In making this Step 2B determination, we must consider whether there are specific limitations or elements recited in the claim “that are not well-understood, routine, conventional activity in the field, which is indicative that an inventive concept may be present” or whether the claim “simply appends well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality, to the judicial exception, indicative that an inventive concept may not be present.” Eligibility Guidance, 84 Fed. Reg. 56 (footnote omitted). We must also consider whether the combination of steps in the claim perform “in an unconventional way and therefore include an ‘inventive step,’ rendering the claim eligible at Step 2B.” *Id.* In this part of the analysis, we consider “the elements of each claim both individually and ‘as an ordered combination’”

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must be considered “to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *See Alice*, 573 U.S. at 217.

Appellant asserts:

[T]he [A]pplicant’s invention cannot be fully understood by simply looking at each step, and each particular component, in a vacuum. The ordered combination of these components allows the invention to provide revised outputs for each iteration, while also improving the invention's accuracy after each iteration. This combination is not routine or conventional; it is a dramatic step forward in achieving the solution to which the invention is addressed.

Appeal Br. 21.

The stated “ordered combination” is said to reside in the arrangement of BOK and normative databases to improve in function over time. *Id.* However, while the recited steps in the claims are performed on a computer, “a particular way of programming or designing the software” is not recited. *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241 (Fed. Cir. 2016).

Appellant asserts that the solution provided by the claims is an improvement to the abstract idea of organizing human activity using the dynamically updated normative database. However, while Appellant asserts the “ordered combination” improves the invention’s accuracy, Appellant did not identify what step(s) operates in combination with the dynamic updating of step a of claim 1. Appeal Br. 16, 20. Appellant also has not explained how the recited processor in the steps operates in an unconventional way to achieve the dynamic updating of the normative database.

Consequently, under Step 2B, we are not persuaded that the Examiner erred in determining that the additional limitations of claim 1 do not transform the claim into significantly more than the abstract idea.

Summary

For the foregoing reasons, we affirm the rejection of claim 1 under 35 U.S.C. § 101. Claims 2–9 and 12–22 fall with claim 1 for the same reasons.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–9, 12–17, 20–22	103	Lewis, Dagnino	1–5, 7–9, 12–17, 20–22	6
18, 19	102	Lewis	18, 19	
1–9, 12–22	101	Eligibility	1–9, 12–22	
Overall Outcome			1–9, 12–22	

TIME PERIOD

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