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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte VIJIL ENARA CHENTHAMARAKSHAN,
NANDAKISHORE KAMBHATLA,
ROSE CATHERINE KANJIRANTHINKAL,
AMIT KUMAR RAMBACHAN SINGH,
and KARTHIK VISWESWARIAH

Appeal 2018-008847
Application 12/944,868¹
Technology Center 3600

Before: MARC S. HOFF, JOHN P. PINKERTON, and
SCOTT R. HOWARD, *Administrative Patent Judges*.

HOFF, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Examiner's Final rejection of claims 1, 4–10, 20, and 21.² We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Appellants state that International Business Machines Corporation is the real party in interest. Appeal Br. 3.

² Claims 2, 3, and 11–19 have been cancelled. Final Act. 2.

Appellants' invention is system and method for matching job candidates with positions through an automated scoring and ranking process. Candidates are ranked using a scoring function based on previous assignments. Embodiments provide for the ranking of candidates which includes identifying the position requirements, mining relevant candidate information, prioritizing mined information based on past assignments, and ranking candidates based on how well they match the position requirements. Spec. ¶ 2. Claim 1 is reproduced below:

1. A system comprising:

at least one processor; and

a memory operatively connected to the at least one processor;

wherein, responsive to execution of computer readable program code accessible to the at least one processor, the at least one processor is configured to:

access historical position assignment data, the historical position assignment data including data for at least one past job position related to at least one current position, wherein the data comprises a job description of the at least one past job position, at least one candidate assigned to the at least one past job position, and at least one candidate rejected from the at least one past job position;

analyze the historical position assignment data for the at least one past job position to generate a position profile, wherein the analyzing comprises extracting and using attributes of the at least one candidate rejected from the at least one past job position as negative examples and extracting and using attributes of the at least one

candidate assigned to the at least one past job position as positive examples to learn attributes of a suitable candidate, wherein the analyzing further comprises identifying, based upon the negative examples and positive examples, substitutable skills for at least one requirement of the at least one current position;

obtain, via a designated website, a plurality of candidate applications for the at least one current position;

extract, using a processor, candidate features from each of the plurality of candidate applications, wherein the extracted candidate features correspond to the at least one position feature;

generate, based on the relevant candidate features, a candidate profile for each of the plurality of candidate applications;

automatically score each of the candidate profiles using the generated position profile, the at least one position feature, and the at least one candidate attribute;

wherein to automatically score comprises utilizing the historical position assignment data to perform at least one of: creating a scoring model and weighting the at least one candidate attribute;

wherein the utilizing comprises analyzing the historical position assignment data and, relative to the at least one position to be matched with at least one candidate, modifying the at least one of: creating a scoring model and weighting the at least one candidate attribute; and

rank the plurality of candidate applications for the at least one current position based on the score for each of the candidate profiles.

The prior art relied upon by the Examiner as evidence is:

Name	Reference	Date
Magrino	US 2002/0198766 A1	Dec. 26, 2002
Levine	US 2006/0100919 A1	May 11, 2006
Kapoor	US 9,405,799 B1	Aug. 2, 2016

Claims 1, 4–10, 20, and 21 stand rejected under 35 U.S.C. § 101 as being directed to patent-ineligible subject matter. Final Act. 8–14; *see also* Reply Br. 5.

Claims 1, 4–10, 20, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Levine, Magrino, and Kapoor. Final Act. 14–24.

Claims 1, 4–10, 20, and 21 stand provisionally rejected on the ground of non-statutory obviousness type double patenting as being unpatentable over claims 1 and 3–10 of co-pending Application No. 13/596,817. Final Act. 24–26.

Throughout this decision, we make reference to the Appeal Brief filed April 16, 2018 (“Appeal Br.”); the Reply Brief filed Sept. 11, 2018 (“Reply Br.”); and the Final Office Action mailed Nov. 1, 2017 (“Final Act.”); and the Examiner’s Answer mailed July 11, 2018 (“Ans.”) for their respective details.

ISSUES

1. Does the claimed invention recite an abstract idea?
2. Is the recited abstract idea integrated into a practical application?
3. Does the claimed invention recite an inventive concept?
4. Does the combination of Levine, Magrino, and Kapoor teach or suggest analyzing historical position assignment data, including extracting

and using attributes of at least one rejected candidate as negative examples and extracting and using attributes of at least one accepted candidate as positive examples to learn attributes of a suitable candidate?

PRINCIPLES OF LAW

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 Supreme Court has long interpreted 35 U.S.C. § 101 to include implicit exceptions: “[l]aws of nature, natural phenomena, and abstract ideas” are not patentable. *See, e.g., Alice Corp. Pty. Ltd. 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 Supreme Court’s two-step 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, 69 (1972)).

Concepts determined to be patent eligible include physical and chemical processes, such as “molding rubber products” (*Diamond v. Diehr*, 450 U.S. 175, 192 (1981)); “tanning, dyeing, making waterproof cloth, vulcanizing India rubber, smelting ores” (*id.* at 184 n.7 (quoting *Corning v. Burden*, 56 U.S. 252, 267–68 (1854))); and manufacturing flour (*Benson*, 409 U.S. at 69 (citing *Cochrane v. Deener*, 94 U.S. 780, 785 (1876))).

In *Diehr*, the claim at issue recited a mathematical formula, but the Supreme Court held that “[a] claim drawn to subject matter otherwise statutory does not become nonstatutory simply because it uses a mathematical formula.” *Diehr*, 450 at 176, 192 (“We view respondents’ claims as nothing more than a process for molding rubber products and not as an attempt to patent a mathematical formula.”). Having said that, the Supreme Court also indicated that a claim “seeking patent protection for that formula in the abstract . . . is not accorded the protection of our patent laws,[] and this principle cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.” *Id.* at 192 (citing *Benson* and *Flook*), and 187 (“It is now commonplace that an *application* of a law of nature or mathematical formula to a known structure or process may well be deserving of patent protection.”).

If the claim is “directed to” an abstract idea, we turn to the second step 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.* (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.*

The PTO recently published revised guidance on the application of section 101. USPTO’s January 7, 2019 Memorandum, *2019 Revised Patent Subject Matter Eligibility Guidance* (“Memorandum, 84 Fed Reg.”) Memorandum, 84 Fed. Reg. 50.³ Under that guidance, we first look to whether the claim recites:

- (1) 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
- (2) additional elements that integrate the judicial exception into a practical application (*see* MPEP § 2106.05(a)–(c), (e)–(h)).

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 are not “well-understood, routine, conventional” in the field (*see* MPEP § 2106.05(d)); or

³ In response to received public comments, the Office issued further guidance on October 17, 2019, clarifying the 2019 Revised Guidance. USPTO, October 2019 Update: Subject Matter Eligibility (available at https://www.uspto.gov/sites/default/files/documents/peg_oct_2019_update.pdf).

(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 Memorandum.

ANALYSIS

SECTION 101 REJECTION

Appellant argues the rejected claims as a single unit. We select claim 1 as representative of the claims under appeal, pursuant to our authority under 37 C.F.R. § 41.37(c)(1)(vii).

Representative claim 1 recites the following limitations. Aspects of the claimed abstract idea are indicated in italics. Additional non-abstract limitations are noted in bold:

1. A system comprising:
at least one **processor**; and
a **memory** operatively connected to the at least one **processor**;
wherein, responsive to execution of **computer readable program code** accessible to the at least one processor, the at least one **processor** is configured to:
 - (a) *access historical position assignment data, the historical position assignment data including data for at least one past job position related to at least one current position,*
 - (b) *wherein the data comprises a job description of the at least one past job position, at least one candidate assigned to the at least one past job position, and at least one candidate rejected from the at least one past job position;*
 - (c) *analyze the historical position assignment data for the at least one past job position to generate a position profile,* wherein the analyzing comprises *extracting and using attributes of the at least one candidate rejected from the at least one past job position as negative examples and extracting and using*

attributes of the at least one candidate assigned to the at least one past job position as positive examples to learn attributes of a suitable candidate, wherein the analyzing further comprises identifying, based upon the negative examples and positive examples, substitutable skills for at least one requirement of the at least one current position;

*(d) obtain, via a designated **website**, a plurality of candidate applications for the at least one current position;*

*(e) extract, using a **processor**, candidate features from each of the plurality of candidate applications, wherein the extracted candidate features correspond to the at least one position feature;*

(f) generate, based on the relevant candidate features, a candidate profile for each of the plurality of candidate applications;

(g) automatically score each of the candidate profiles using the generated position profile, the at least one position feature, and the at least one candidate attribute;

(h) wherein to automatically score comprises utilizing the historical position assignment data to perform at least one of: creating a scoring model and weighting the at least one candidate attribute;

(i) wherein the utilizing comprises analyzing the historical position assignment data and, relative to the at least one position to be matched with at least one candidate, modifying the at least one of: creating a scoring model and weighting the at least one candidate attribute; and

(j) rank the plurality of candidate applications for the at least one current position based on the score for each of the candidate profiles.

These limitations, under the broadest reasonable interpretation, constitute steps to access data for at least one past job position related to a current position, including job description, data on at least one candidate selected for the position, and data on at least one candidate rejected for the position. A position profile is generated, using rejected candidate data as a

negative example and selected candidate data as a positive example. Candidate applications for the current position are obtained, candidate features are extracted, and a candidate profile is generated for each of the candidate applications. A scoring model is created and the candidate profiles are scored according to the model. The candidate applications are then ranked based on the score for each of the candidate profiles.

We determine that limitations (a), (b), and (d) correspond to the gathering of data. Limitations (a) and (b) concern gathering historical position data, and specifying what sort of data that is. Limitation (d) concerns obtaining a plurality of candidate applications for the current position to be filled.

The Memorandum recognizes that certain groupings of subject matter have been found by the courts to constitute judicially excepted abstract ideas: (a) mathematical concepts, (b) certain methods of organizing human activity, and (c) mental processes. Memorandum, 84 Fed Reg. 52. If a claim, under its broadest reasonable interpretation, covers performance in the mind but for the recitation of generic computer components, then it is still in the mental processes category unless the claim cannot practically be performed in the mind.⁴ We determine that the claim steps beyond those

⁴ See *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1318 (Fed. Cir. 2016) (“[W]ith the exception of generic computer implemented steps, there is nothing in the claims themselves that foreclose them from being performed by a human, mentally or with pen and paper.”); see also *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (Holding that computer-implemented method for “anonymous loan shopping” was an abstract idea because it could be “performed by humans without a compute.r”); *Versata Dev. Grp. v. SAP Am., Inc.*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) (“Courts have examined

directed to extra-solution activity (i.e., gathering, display, or storage of data) – generating a position profile from historical position data; extracting candidate features from candidate applications; generating a candidate profile from candidate applications; scoring each of the candidate profiles; and ranking the scores of the candidate profiles – constitute steps that may

claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person’s mind.”); *CyberSource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1375, 1372 (Fed. Cir. 2011) (Holding that the incidental use of “computer” or “computer readable medium” does not make a claim otherwise directed to process that “can be performed in the human mind, or by a human using a pen and paper.”) (patent eligible), 1376 (Distinguishing *Research Corp. Techs. v. Microsoft Corp.*, 627 F.3d 859 (Fed. Cir. 2010), and *SiRF Tech., Inc. v. Int’l Trade Comm’n*, 601 F.3d 1319 (Fed. Cir. 2010), as directed to inventions that “could not, as a practical matter, be performed entirely in a human’s mind.”). *Mayo*, 566 U.S. at 71 (“[M]ental processes[] and abstract intellectual concepts are not patentable, as they are the basic tools of scientific and technological work.”) (quoting *Benson*, 409 U.S. at 67); *Flook*, 437 U.S. at 589 (same); *Benson*, 409 U.S. at 67, 65 (Noting that the claimed “conversion of [binary-coded decimal] numerals to pure binary numerals can be done mentally,” i.e., “as a person would do it by head and hand.”); *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1139, (Fed. Cir. 2016) (Holding that claims to the mental process of “translating a functional description of a logic circuit into a hardware component description of the logic circuit” are directed to an abstract idea, because the claims “read on an individual performing the claimed steps mentally or with pencil and paper.”); *In re BRCA1 & BRCA2-Based Hereditary Cancer Test Patent Litig.*, 774 F.3d 755, 763 (Fed. Cir. 2014) (Concluding that concept of “comparing BRCA sequences and determining the existence of alterations” is an “abstract mental process.”); *In re Brown*, 645 F.Appx. 1014, 1017 (Fed. Cir. 2016) (non-precedential) (Claim limitations “encompass the mere idea of applying different known hair styles to balance one’s head. Identifying head shape and applying hair designs accordingly is an abstract idea capable, as the Board notes, of being performed entirely in one’s mind.”).

be performed in the mind, but for the recitation of generic computer components.

Appellant argues that the claims are not directed to an abstract idea. Appellant contends that the claims are directed to technological improvements to the technological field of filtering and selecting job candidates. Appeal Br. 22; *see also* Spec. ¶¶ 1, 18–25, and 33. Appellant alleges that the claim limitations provide a method for filtering and selecting job candidates using a machine trained system in order to provide a more consistent review of candidates and reduce time needed by users to screen and select job candidates. Appeal Br. 22.

We do not agree that Appellant has identified a “technological improvement to a technological field.” *Id.* Rather, we agree with the Examiner that Appellant’s invention is directed to an improvement to the abstract idea of matching job candidates with job openings. The application of computer technologies to data processing tasks does not amount to a patent-eligible technological improvement. Performing calculations more efficiently on a computer does not materially affect the patent eligibility of subject matter. *Bancorp Servs. v. Sun Life Assur. Co. of Canada*, 687 F.3d 1266 (Fed. Cir. 2012).

Appellant argues that the specification discloses benefits over conventional techniques for job candidate filtering and selection. Appeal Br. 23; *see also* Spec. ¶¶ 1, 18–25, and 33. Appellant’s argument is not persuasive to show patent eligibility. Appellant’s cited portions of its Specification are directed to describing prior art procedures for manual or automated job candidate screening. That Appellant discloses a solution to

the business problem of identifying highly qualified job candidates does not mean that Appellant has disclosed a patent-eligible invention.

Appellant argues that the claims are directed to an improvement in existing computer technology, as the Specification identifies benefits of the currently claimed limitations over conventional techniques for candidate selection and filtering. Appeal Br. 25. Appellant discloses that computers provide the capability to screen “thousands” of resumes and to avoid a “typical manual screening process.” Spec. ¶¶ 1, 23. Appellant’s argument is not persuasive on the topic of patent eligibility, because Appellant has disclosed the application of known computer technology to an abstract idea, rather than an improvement to the functioning of the computer itself. We agree with the Examiner that the invention under appeal uses known data querying and comparison techniques, executed on known computer components. Ans. 6.

Appellant refers to an allegedly “machine trained” system to provide a more consistent review of applications. Appeal Br. 23. First, claim 1 makes no mention of any such “machine training” or “machine learning.” Second, even in the context of the recitation of such a term (claim 21), we agree with the Examiner that the invention under appeal employs known data querying and comparison steps, where the processing of data is merely affected by the data itself. Ans. 7. It is evident from Appellant’s scant, passing mention of “machine learning” in the Specification that Appellant does not seek to patent any technological improvement in machine learning or machine training. Spec. ¶ 35.

Appellant argues that the Specification describes specific technical improvements to programming that permit its system to filter and select job

candidates in novel, non-obvious ways. Appeal Br. 26; *see also* Spec. ¶¶ 26, 27, 32, and 33. Appellant cites *Trading Technologies* to support its argument that such specific technological modifications “generally produce patent-eligible subject matter.” Appeal Br. 25; *see also Trading Techs. Int’l, Inc. v. CQG, Inc.*, 670 Fed.Appx. 1001, 1004 (Fed. Cir. 2017) (nonprecedential).

Appellant’s analogy to *Trading Technologies* is unpersuasive. There, the court found patent eligibility as a consequence of claims that “require a specific, structured graphical user interface paired with a prescribed functionality directly related to the graphical user interface’s structure that is addressed to and resolves a specifically identified problem in the prior state of the art.” *Trading Techs.*, 670 Fed.Appx. at 1004. In the invention under appeal, Appellant has not identified any such functionality, directly related to the technological structure, that resolves such a specifically identified problem in the art.

Accordingly, we conclude that the claims recite a mental process, one of the categories of abstract ideas recognized in the Memorandum. *See* Memorandum, 84 Fed. Reg. 52. We thus conclude that the claims recite an abstract idea.

INTEGRATED INTO A PRACTICAL APPLICATION

We next evaluate whether the claims integrate the identified abstract idea of filtering and selecting job applicants, including the analysis of historical position assignment data including rejected candidate attributes and accepted candidate attributes, into a practical application. *See* Memorandum, 84 Fed. Reg. 51. We consider whether there are any

additional elements beyond the abstract ideas that, individually or in combination, “integrate the [abstract ideas] into a practical application, using one or more of the considerations laid out by the Supreme Court and the Federal Circuit.” *Id.* at 54–55.

The Memorandum provides exemplary considerations that are indicative that an additional element may have integrated the exception (i.e., the abstract idea recited in the claim) into a practical application:

- (i) an improvement to the functioning of a computer;
- (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 Memorandum, 84 Fed Reg. 55; *see also* MPEP §§ 2106.05(a)–(c), and (e)–(h).

As noted *supra*, we note that the claims recite the additional elements of a “processor,” “memory,” “computer readable program code,” and “website.”

Appellant refers to a “processor” of a “general purpose computer, special purpose computer, or other programmable data processing apparatus.” Spec. ¶ 45. We determine that Appellant discloses a “processor” as a generic component.

Appellant defines “memory” (“system memory 630”) as “computer readable storage media in the form of volatile and/or nonvolatile memory such as read only memory (ROM) and/or random access memory (RAM). By way of example, and not limitation, system memory 630 may also

include an operating system, application programs, other program modules, and program data.” Spec. ¶ 38. We determine that Appellant has not disclosed memory as a non-generic component.

Appellant defines “computer readable program code” as being stored on one or more computer readable medium(s). Spec. ¶ 41. “Program code” may be transmitted using any appropriate medium. Spec. ¶ 43. Such compute program code may be written in “Java, Smalltalk, C++ or the like and conventional procedural programming languages.” Spec. ¶ 44. We determine that the disclosed computer readable program code is generically recited.

Appellant mentions a designated “website,” by which job candidates may apply for job 104, only once, with no description or elaboration. Appellant does not refer to or describe the “website” as anything other than a generic component.

Appellant contends that claim 1 “requires something more than a generic computer” by “automatically ranking a plurality of candidate application (sic) for a current job position using historical position assignment data.” Appeal Br. 28. Appellant cites to paragraphs 1, 18–25, and 33 of the Specification, but these paragraphs only describe *prior art* methods of manual or automatic resume screening. As mentioned supra, we determine that Appellant’s argument about “machine training” corresponds to mere data querying and comparison steps that provide for automatic processing of resumes.

Appellant asserts, without evidence, that known elements are combined in a manner that is unconventional and non-generic. Appeal Br. 29. Appellant argues, without evidence, that the claim limitations are not

well-understood, routine, or conventional activity. Appellant then mentions *BASCOM* without evidence or detail explaining why the case is analogous.⁵ Appeal Br. 30. Appellant’s arguments here wholly fail to establish that Appellant has disclosed a specific, discrete implementation of an abstract idea, and a technical improvement over prior art ways of performing the claimed method (here, of matching job candidates to job openings), as in *BASCOM*. We determine that Appellant has not demonstrated a non-conventional, non-generic arrangement of known, conventional components.

We conclude that the claims do not recite additional elements that integrate the recited abstract idea of using historical job position data and historical job candidate data to evaluate candidate applications for a present job opening into a practical application under the standards established by the Supreme Court and the Federal Circuit.

INVENTIVE CONCEPT

Last, we consider whether claims 1, 4–10, 20, and 21 express an inventive concept, i.e., whether any additional claim elements “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 573 U.S. at 217 (quoting *Mayo*, 566 U.S. at 78, 79). This requires us to evaluate whether the additional claim elements add “a specific limitation or combination of limitations that are not well-understood, routine, and conventional activity in the field” or “simply append[] well-understood, routine, conventional activities previously known to the industry, specified at a high level of generality.” Memorandum, 84 Fed. Reg. 50, 56.

⁵ *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341 (Fed. Cir. 2016).

As discussed *supra*, the claims recite the additional elements of a “processor,” “memory,” “computer readable program code,” and “website.” We determine *supra* that Appellant does not disclose any of these additional elements as being anything other than well-understood, routine, and conventional.

Regarding the use of the recited generic computer components identified, the Supreme Court has held that “the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention.” *Alice*, 573 U.S. at 223. Our reviewing court provides additional guidance: *See FairWarning*, 839 F.3d at 1096 (“[T]he use of generic computer elements like a microprocessor or user interface do not alone transform an otherwise abstract idea into patent-eligible subject matter.”); *see also OIP Techs*, 788 F.3d at 1363 (Claims reciting, *inter alia*, sending messages over a network, gathering statistics, using a computerized system to automatically determine an estimated outcome, and presenting offers to potential customers found to merely recite “‘well-understood, routine conventional activit[ies],’ either by requiring conventional computer activities or routine data-gathering steps.”). We determine from Appellants’ general disclosure of these elements that the claimed processor, memory, program code, and website are generic computer components. As such, they cannot transform the recited patent-ineligible abstract idea into a patent-eligible invention.

Appellants have presented no argument contesting the Examiner’s characterization of any additional claim element as well-understood, routine, and conventional. Appellants have not contended that the Examiner lacked factual support for any finding that a claim element is well-understood,

routine, and conventional. As a result, we determine that none of the claim elements, additional to those limitations we determined to constitute a mental process, recite a limitation or combination of limitations that are not well-understood, routine, and conventional activity in the field of user authentication.

SUBJECT MATTER ELIGIBILITY — CONCLUSION

We conclude that the claims recite a process of comparing job candidate applications to historical job listings and prior applicants (both accepted and rejected), extracting candidate features, generating candidate profiles, scoring each of the candidate profiles, and ranking the candidate applications according to score, which we determine to constitute a mental process, one of the categories of invention found by the courts to constitute an abstract idea.

We further conclude that the claims do not integrate the identified abstract idea into a practical application.

We further conclude that the claimed invention does not recite additional claim elements that transform the nature of the claim into a patent-eligible application of an abstract idea.

Accordingly, we sustain the Examiner's 35 U.S.C. § 101 rejection of claims 1, 4–10, 20, and 21.

35 U.S.C. § 103 Rejection of claims 1, 4–10, 20, and 21 over Levine,
Magrino, and Kapoor

The Examiner finds that Levine and Magrino do not teach analyzing the historical position assignment data for the at least one past job position to

generate a position profile, wherein the analyzing comprises extracting and using attributes at the at least one candidate rejected from the at least one past job position as negative examples and extracting and using attributes of the at least one candidate assigned to the at least one past job position as positive attributes to learn attributes of a suitable candidate. Final Act. 17. The Examiner then finds that Kapoor teaches extracting and using such information about rejected and assigned candidates. Final Act. 17–18.

We do not agree with the Examiner’s finding. The Examiner cites to various portions of column 43 of Kapoor as evidence. Kapoor’s disclosure at column 43 is concerned with the interface illustrated in Kapoor Figure 34B, which is an interface “for employee onboarding.” Kapoor col. 42:38–39. “A variety of information is displayed pertaining to job candidates.” Kapoor col. 42:40–41. “[T]he interface in Fig. 34B may further be applicable for current employees who are candidates for new positions, promotions, and/or the like, such as may require additional training, passing a test, and/or the like.” Kapoor col. 43:7–10. Figure 34B illustrates an interface that presents a plurality of columns of information to a user, presumably an administrator, such as a status column with information “reflecting performance on a test, performance in an interview;” columns for start date, location, name, and email; and columns where a user may enter information. *Id.* at col. 43:18-37. “In one implementation, the interface elements may allow an administrator to reject a candidate with respect to a particular job offer, promotion, title change, and/or the like, and/or to offer the same to the candidate.” *Id.* at col. 43:39-43.

While Kapoor discloses an invention generally related to the field of identifying appropriate job candidates, we do not find in Kapoor a disclosure

of the analysis of historical position assignment data that is cited by the Examiner. We find that Kapoor does not teach a system extracting and using attributes of at least one rejected candidates, to be used as negative examples, and does not teach extracting and using attributes of assigned candidates, to be used as positive attributes, to learn attributes of a suitable candidate.

We conclude that the Examiner erred in finding that the combination of Levine, Magrino, and Kapoor teaches all the limitations of the claimed invention. Thus, we do not sustain the Examiner's 35 U.S.C. § 103 rejection of claims 1, 4–10, 20, and 21.

Obviousness Double Patenting Rejection

Appellant argues that the claims of this application “are not identical and patentably distinct,” and of different classes of invention, from claims 1 and 3–10 of co-pending Application No. 13/596,817 (“the ’817 application”). Appeal Br. 36. With the exception of claim 10, we are not persuaded by Appellant's argument. We have reviewed the claims under appeal and the claims pending in the ’817 application, and we agree with the Examiner that the two sets of claims, while not identical, are substantially similar. We agree with the Examiner that the various steps of the method claimed herein, as contrasted with the system or computer program product claims of the ’868 application, are obvious variations of one another.

The subject matter of claim 10 is not recited in any claim of the ’817 application.

We sustain the Examiner’s provisional non-statutory double patenting rejection of claims 1, 4–9, 20, and 21. We do not sustain the provisional non-statutory double patenting rejection of claim 10.

DECISION

1. The claimed invention recites an abstract idea.
2. The recited abstract idea is not integrated into a practical application.
3. The claimed invention does not recite an inventive concept.
4. The combination of Levine, Magrino, and Kapoor does not teach or suggest analyzing historical position assignment data, including extracting and using attributes of at least one rejected candidate as negative examples and extracting and using attributes of at least one accepted candidate as positive examples to learn attributes of a suitable candidate.

The Examiner’s decision to reject claims 1, 4–10, 20, and 21 is affirmed.

CONCLUSION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1, 4–10, 20, 21	101	Patent Eligible Subject Matter	1, 4–10, 20, 21	
1, 4–10, 20, 21	103	Levine, Magrino, Kapoor		1, 4–10, 20, 21
1, 4–10, 20, 21		Obviousness-type double patenting	1, 4–9, 20, 21	10
Overall Outcome			1, 4–10, 20, 21	

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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