

Petition for Post-Grant Review
U.S. Patent No. 12,353,917

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

WEALTH, INC.
Petitioner

v.

VANILLA TECHNOLOGIES, INC.
Patent Owner

Case PGR2026-00042

U.S. Patent No. 12,353,917
Title: EVENT-BASED RESOURCE ALLOCATION SYSTEM
Filing Date: 11/27/2024
Issue Date: 07/08/2025

PETITION FOR POST-GRANT REVIEW OF
U.S. PATENT NO. 12,353,917

Mail Stop Patent Board
Patent Trial and Appeal Board
U.S. Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

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All citations to 35 U.S.C. §§ 102, 103, and 112 in this paper refer to the AIA statutes.

This paper includes color illustrations and should be viewed in color.

PETITIONER'S EXHIBIT LIST

Exhibit	Description
1001	U.S. Patent No. 12,353,917.
1002	U.S. Provisional App. No. 63/603,985.
1003	File History of U.S. Patent No. 12,353,917.
1004	Declaration of Jules White, Ph.D. (cited as “White Decl.”).
1005	Int’l Patent App. Pub. No. WO2020/028252 A2 to Racanelli et al. (cited as “ <i>Racanelli</i> ”).
1006	U.S. Patent No. 7,031,935 to Chhabra et al.
1007	U.S. Patent App. Pub. No. 2015/0286630 to Bateman et al. (cited as “ <i>Bateman</i> ”).
1008	Michael Curtotti and Eric McCreath, <i>Corpus Based Classification of Text in Australian Contracts</i> , PROCEEDINGS OF AUSTRALASIAN LANGUAGE TECHNOLOGY ASSOCIATION WORKSHOP, 18-26 (2010) (cited as “ <i>Curtotti</i> ”).
1009	U.S. Patent App. Pub. No. 2017/0076381 to Dintenfass et al. (cited as “ <i>Dintenfass</i> ”).
1010	U.S. Patent App. Pub. No. 2025/0245763 to McMillen et al. (cited as “ <i>McMillen</i> ”).
1011	Alice Saebom Kwak et al., <i>Validity Assessment of Legal Will Statements as Natural Language Inference</i> , FINDINGS OF THE ASSOCIATION FOR COMPUTATIONAL LINGUISTICS, EMNLP 2022, 6047-6056 (Dec. 7-11, 2022) (cited as “ <i>Kwak</i> ”).
1012	Wayne Xin Zhao et al., <i>A Survey of Large Language Models</i> , arXiv:2303.18223v13 (Nov. 24, 2023).
1013	Georgios Fatouros et al., <i>Transforming Sentiment Analysis in the Financial Domain with ChatGPT</i> , 14 MACHINE LEARNING WITH APPLICATIONS 100508 (Nov. 4, 2023).
1014	Internet Archive Record of Krystal Hu, ChatGPT Sets Record for Fastest Growing User Base - Analyst Note, REUTERS (Feb. 2, 2023), https://web.archive.org/web/20230202011533/https://www.reuters.com/technology/chatgpt-sets-record-fastest-growing-user-base-analyst-note-2023-02-01/(captured Feb. 2, 2023).
1015	Paula Maddigan & Teo Susnjak, <i>Chat2VIS: Generating Data Visualizations via Natural Language Using ChatGPT, Codex and GPT-3 Large Language Models</i> , 11 IEEE ACCESS 45181 (May 12, 2023).

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1016	Yiheng Liu et al., <i>Summary of ChatGPT-Related Research and Perspective Towards the Future of Large Language Models</i> , 1 META-RADIOLOGY 100017 (Aug. 18, 2023).
1017	David L. Morgan, <i>Exploring the Use of Artificial Intelligence for Qualitative Data Analysis: The Case of ChatGPT</i> , 22 INT’L J. QUALITATIVE METHODS 1 (Oct. 2023).
1018	Jules White et al., <i>A Prompt Pattern Catalog to Enhance Prompt Engineering with ChatGPT</i> , arXiv:2302.11382 (Feb. 21, 2023).
1019	Internet Archive Record of Sawdah Bhaimiya, ChatGPT may be the fastest-growing consumer app in internet history, reaching 100 million users in just over 2 months, UBS report says, BUSINESS INSIDER (Feb. 2, 2023), https://web.archive.org/web/20230203044225/https://www.businessinsider.com/chatgpt-may-be-fastest-growing-app-in-history-ubs-study-2023-2 (captured Feb. 3, 2023).
1020	Alec Radford et al., <i>Learning Transferable Visual Models From Natural Language Supervision</i> , arXiv:2103.00020 (Feb. 26, 2021).
1021	Jean-Baptiste Alayrac et al., <i>Flamingo: a Visual Language Model for Few-Shot Learning</i> , arXiv:2204.14198v2 (Nov. 15, 2022).
1022	Internet Archive Record of Kyle Wiggers, OpenAI releases GPT-4, a multimodal AI that it claims is state-of-the-art, TECHCRUNCH (Mar. 14, 2023), https://web.archive.org/web/20250817160037/https://techcrunch.com/2023/03/14/openai-releases-gpt-4-ai-that-it-claims-is-state-of-the-art/ (captured Aug. 17, 2025).
1023	Danny Driess et al., <i>PaLM-E: An Embodied Multimodal Language Model</i> , arXiv:2303.03378 (Mar. 6, 2023).
1024	Internet Archive Record of American Heritage Dictionary of the English Language, definition of “between,” https://web.archive.org/web/20230930082124/ahdictionary.com/word/search.html?q=between (captured Sept. 30, 2023).
1025	Internet Archive Record of Cambridge Dictionary, definition of “between,” https://web.archive.org/web/20220322024512/https://dictionary.cambridge.org/dictionary/english/between (captured Mar. 22, 2022).
1026	Declaration of Ingrid Hsieh-Yee, Ph.D. (cited as “Hsieh-Yee Decl.”).
1027	Declaration of Mina Ching (Internet Archive).

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All citations to specific pages of exhibits follow the pagination added to those exhibits per 37 C.F.R. § 42.63(d)(2)(i).

LISTING OF CLAIMS

#	Claim Language
1[p]	A computer-implemented method comprising:
1[a]	generating, by a computing system comprising one or more processors, based on inputting one or more resource documents into one or more machine-learning models, one or more prompts comprising requests for information associated with resource allocation instructions for distribution of resources, wherein the one or more machine-learning models are configured to generate the one or more prompts based on recognition of textual features of the one or more resource documents associated with the resources, wherein the one or more resource documents comprise one or more resource document fields, and wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients;
1[b]	receiving, by the computing system, one or more responses to the one or more prompts;
1[c]	generating, by the computing system, based on inputting the one or more responses and rule data comprising one or more rules associated with the resources into the one or more machine-learning models, resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, wherein the one or more machine-learning models are trained based on training data comprising training resource data and training rule data, and wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses;
1[d]	generating, by the computing system, based on the resource data, one or more indications associated with the resource allocation instructions, wherein the one or more indications comprise one or more visualizations of the distribution of the one or more assets to the one or more resource recipients; and
1[e]	updating, by the computing system, the one or more visualizations in real-time based on changes in one or more values of the one or more assets.
2[p]	The computer-implemented method of claim 1, further comprising:

#	Claim Language
2[a]	receiving, by the computing system, an asset valuation request associated with a projected asset valuation of the one or more assets; and
2[b]	determining, by the computing system, based on the resource data, the projected asset valuation of the one or more assets, wherein the one or more indications associated with the resource allocation instructions comprise the projected asset valuation of the one or more assets.
3[p]	The computer-implemented method of claim 2,
3[a]	wherein the one or more machine-learning models comprise one or more machine-learning asset projection models, and
3[b]	wherein the projected asset valuation is based on inputting the resource data and financial data into the one or more machine-learning asset projection models that are configured to generate the projected asset valuation,
3[c]	wherein the financial data comprises one or more predicted asset appreciation rates or one or more asset depreciation rates.
4[p]	The computer-implemented method of claim 1, further comprising:
4[a]	receiving, by the computing system, an asset distribution request associated with a projected asset distribution of the one or more assets to the one or more entities;
4[b]	determining, by the computing system, based on the resource data, one or more relationships between the one or more entities; and
4[c]	determining, by the computing system, based on the resource data and the one or more relationships between the one or more entities, a plurality of projected asset distributions of the one or more assets to the one or more entities,
4[d]	wherein the one or more indications associated with the resource allocation instructions comprise the plurality of projected asset distributions of the one or more assets to the one or more entities.
5[p]	The computer-implemented method of claim 4,
5[a]	wherein the one or more machine-learning models comprise one or more machine-learning distribution projection models, and

#	Claim Language
5[b]	wherein the projected asset distribution is based on inputting the resource data and relationship data associated with the one or more relationships into the one or more machine-learning distribution projection models that are configured to generate the projected asset distribution.
6[p]	The computer-implemented method of claim 1, further comprising:
6[a]	receiving, by the computing system, one or more conditions associated with the one or more entities or the one or more assets; and
6[b]	determining, by the computing system, one or more scenarios associated with the one or more conditions, wherein the one or more scenarios comprise one or more projected valuations of the one or more assets or one or more predicted distributions of the one or more assets to the one or more resource recipients,
6[c]	wherein the one or more indications associated with the resource allocation instructions comprise the one or more scenarios associated with the one or more scenarios.
7[p]	The computer-implemented method of claim 6,
7[a]	wherein the one or more conditions comprise a possible life expectancy of the one or more entities or a possible valuation of the one or more assets.
8[p]	The computer-implemented method of claim 6,
8[a]	wherein the one or more machine-learning models comprise one or more machine-learning scenario models, and
8[b]	wherein the determining the one or more scenarios is based on inputting the resource data and the one or more conditions into the one or more machine-learning scenario models that are configured to generate the one or more scenarios.
9[p]	The computer-implemented method of claim 1, further comprising:
9[a]	receiving, by the computing system, event data comprising information associated with a plurality of events associated with the resources;
9[b]	determining, by the computing system, based on the resource data, whether one or more events of the plurality of events satisfy one or more event criteria; and

#	Claim Language
9[c]	generating, by the computing system, one or more event notifications associated with the one or more events that satisfy the one or more event criteria,
9[d]	wherein the one or more indications associated with the resource allocation instructions comprise the one or more event notifications.
10[p]	The computer-implemented method of claim 9, further comprising:
10[a]	sending, by the computing system, the one or more event notifications to one or more remote computing devices associated with an entity that is authorized to receive the one or more event notifications.
11[p]	The computer-implemented method of claim 9,
11[a]	wherein the plurality of events comprise marriage, divorce, receipt of a new asset, birth of a child, or death of at least one of the one or more entities.
12[p]	The computer-implemented method of claim 1,
12[a]	wherein the one or more resource documents comprise one or more network policies, one or more user guides, one or more access policies, one or more authorization policies, one or more authentication policies, one or more wills, one or more trusts, a power of attorney, one or more titles, one or more deeds, one or more account resource recipient designations, one or more guardianship designations, one or more insurance policies, or one or more healthcare directives.
13[p]	The computer-implemented method of claim 1,
13[a]	wherein the generating, by the computing system, based on one or more responses and rule data comprising one or more rules associated with the resources, resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses comprises:
13[b]	determining, by the computing system, one or more locations associated with the one or more assets, wherein the one or more locations comprise one or more administrative divisions; and

#	Claim Language
13[c]	determining, by the computing system, the one or more rules associated with the one or more locations.
14[p]	The computer-implemented method of claim 1,
14[a]	wherein the one or more entities further comprise one or more trustees of the resources or one or more creditors, and
14[b]	wherein the one or more assets comprise real property, tangible personal property, one or more securities, or cash.
15[p]	The computer-implemented method of claim 1,
15[a]	wherein the one or more rules are based on one or more regulations associated with the resources, and further comprising:
15[b]	receiving, by the computing system, data associated with one or more modifications of the one or more regulations;
15[c]	modifying, by the computing system, the rule data based on the data associated with one or more modifications of the one or more regulations, and
15[d]	generating, by the computing system, one or more rule modification notifications associated with the one or more modifications of the one or more regulations,
15[e]	wherein the one or more indications associated with the resource allocation instructions comprise the one or more rule modification notifications.
16[p]	The computer-implemented method of claim 15, further comprising:
16[a]	sending, by the computing system, the one or more rule modification notifications to one or more remote computing devices associated with an entity authorized to receive the one or more rule modification notifications.
17[p]	A computing system, comprising:
17[a]	one or more processors;
17[b]	one or more non-transitory computer-readable media storing instructions that, when executed by the one or more processors, cause the computing system to perform operations, the operations comprising:

#	Claim Language
17[c]	generating, based on inputting one or more resource documents into one or more machine-learning models, one or more prompts comprising requests for information associated with resource allocation instructions associated with resources, wherein the one or more machine-learning models are configured to generate the one or more prompts based on recognition of textual features of the one or more resource documents associated with the resources, wherein the one or more resource documents comprise one or more resource document fields, and wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients;
17[d]	receiving one or more responses to the one or more prompts;
17[e]	generating, based on inputting the one or more responses and rule data comprising one or more rules associated with the resources into the one or more machine-learning models, resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, wherein the one or more machine-learning models are trained based on training data comprising training resource data and training rule data, and wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses;
17[f]	generating, based on the resource data, one or more indications associated with the resource allocation instructions, wherein the one or more indications comprise one or more visualizations of the distribution of the one or more assets to the one or more resource recipients; and
17[g]	updating the one or more visualizations in real-time based on changes in one or more values of the one or more assets.
18[p]	The computing system of claim 17,
18[a]	wherein the one or more rules are based on one or more regulations associated with the resources, and wherein the operations further comprise:
18[b]	receiving data associated with one or more modifications of the one or more regulations;
18[c]	modifying the rule data based on the data associated with one or more modifications of the one or more regulations; and

#	Claim Language
18[d]	generating one or more rule modification notifications associated with the one or more modifications of the one or more regulations,
18[e]	wherein the one or more indications associated with the resource allocation instructions comprise the one or more rule modification notifications.
19[p]	One or more non-transitory computer-readable media that collectively store instructions that, when executed by one or more computing devices, cause the one or more computing devices to perform operations, the operations comprising:
19[a]	generating, based on inputting one or more resource documents into one or more machine-learning models, one or more prompts comprising requests for information associated with resource allocation instructions associated with resources, wherein the one or more machine-learning models are configured to generate the one or more prompts based on recognition of textual features of the one or more resource documents associated with the resources, wherein the one or more resource documents comprise one or more resource document fields, and wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients;
19[b]	receiving one or more responses to the one or more prompts;
19[c]	generating, based on inputting the one or more responses and rule data comprising one or more rules associated with the resources into the one or more machine-learning models, resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, wherein the one or more machine-learning models are trained based on training data comprising training resource data and training rule data, and wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses;
19[d]	generating, based on the resource data, one or more indications associated with the resource allocation instructions, wherein the one or more indications comprise one or more visualizations of the distribution of the one or more assets to the one or more resource recipients; and

#	Claim Language
19[e]	updating the one or more visualizations in real-time based on changes in one or more values of the one or more assets.
20[p]	The one or more non-transitory computer-readable media of claim 19,
20[a]	wherein the one or more rules are based on one or more regulations associated with the resources, and wherein the operations further comprise:
20[b]	receiving data associated with one or more modifications of the one or more regulations;
20[c]	modifying the rule data based on the data associated with one or more modifications of the one or more regulations; and
20[d]	generating one or more rule modification notifications associated with the one or more modifications of the one or more regulations,
20[e]	wherein the one or more indications associated with the resource allocation instructions comprise the one or more rule modification notifications.

I. Introduction

Petitioner Wealth, Inc. (“Wealth.com”) requests post-grant review and cancellation of Claims 1-20 of U.S. Patent No. 12,353,917 (“the ’917 Patent”), currently assigned to Vanilla Technologies, Inc. (“Vanilla”).

The challenged claims generally involve using a machine-learning model to generate a prompt about a document with instructions to allocate resources, such as a will; receiving a response to the prompt; inputting the response and rule data, such as will provision, into the machine-learning model to generate “resource data,” such as data that reflects which recipients are to receive which resources; generating, based on the resource data, a visualization that reflects distributions of assets; and updating the visualization in real-time based on asset value changes. (’917 Patent at 5:45-52, 7:38-46, 8:41-45, Claims 1, 12, 17, 19.) This petition shows that the challenged claims are unpatentable.

To start, the challenged claims are ineligible. “[P]atents that do no more than claim the application of generic machine learning to new data environments, without disclosing improvements to the machine learning models to be applied, are patent ineligible under § 101.” *Recentive Analytics, Inc. v. Fox Corp.*, 134 F.4th 1205, 1216 (Fed. Cir. 2025). The ’917 Patent’s claims merely apply generic machine learning to visualizing and making determinations about resource allocations such as estate plans, so those claims are ineligible. What’s more, the challenged claims

merely gather data, process it, and display the results—which the Federal Circuit has consistently held ineligible. *E.g.*, *In re Killian*, 45 F.4th 1373, 1380 (Fed. Cir. 2022); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093-94 (Fed. Cir. 2016); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1351-54 (Fed. Cir. 2016). The claims’ failure to improve machine learning or provide any other technological improvement confirms their ineligibility. *See Ex parte Desjardins*, Appeal No. 2024-000567, at 7-10 (PTAB Sept. 26, 2025) (designated precedential).

The challenged claims also would have been obvious to ordinarily skilled artisans, as explained by Dr. Jules White, a leading machine-learning expert. (White Decl. ¶¶ 7-13.) The independent claims and several dependent claims would have been obvious over the *Racanelli* (Ex. 1005), *Bateman* (Ex. 1007), and *Dintenfass* (Ex. 1009) references. The rest would have been obvious over those three references with either the *McMillen* reference (Ex. 1010) or the *Kwak* reference (Ex. 1011). None of those references were cited or applied during prosecution—indeed, no prior art was. (’917 Patent, at Cover; Ex. 1003.)

Claims 4, 5, and 13 have further problems. Claims 4 and 5 are indefinite for including a logical impossibility: a relationship “between” one entity. And Claim 13 is an improper dependent claim because it omits features from parent Claim 1.

For all of those reasons, the challenged claims are unpatentable.

II. Mandatory Notices

A. Real Party-In-Interest (37 C.F.R. § 42.8(b)(1))

Wealth.com is the real party-in-interest.

B. Related Matters (37 C.F.R. § 42.8(b)(2))

1. Judicial Matters

At present, no judicial matters involve the '917 Patent.

2. Administrative Matters

According to Patent Center, U.S. Patent App. No. 19/230,845 is a continuation of the application that issued as the '917 Patent.

C. Designation of Lead and Back-up Counsel (37 C.F.R. § 42.8(b)(3))

With this petition, Wealth.com is submitting a power of attorney designating the following lead and back-up counsel:

Lead Counsel	Back-up Counsel
Scott Seeley (Reg. No. 76,800) scott@eastgateip.com EASTGATE IP 14205 SE 36th St, Suite 100 Bellevue, WA 98006 Telephone: (425) 296-8221	Tim Seeley (Reg. No. 53,575) tim@eastgateip.com EASTGATE IP 14205 SE 36th St, Suite 100 Bellevue, WA 98006 Telephone: (425) 296-8223 Patrick G. Maloney (Reg. No. 67,247) pmaloney@corkmaloney.com CORK MALONEY LLP 1901 Avenue of the Stars, Suite 200 Los Angeles, CA 90067 Telephone: (310) 895-9402

D. Service Information (37 C.F.R. § 42.8(b)(4))

Please direct all correspondence to lead and back-up counsel at the addresses listed above. Wealth.com consents to electronic service at the email addresses listed for lead and back-up counsel.

III. Fees

Wealth.com is electronically submitting the required petition fees. Please charge Eastgate IP's deposit account, No. 60-4131, for any deficiency.

IV. Grounds for Standing and Timing

Wealth.com certifies that (1) it is not estopped or barred from requesting PGR on the grounds herein; and (2) the '917 Patent is available for PGR. The '917 Patent's earliest alleged effective filing date is its provisional's November 29, 2023 filing date. ('917 Patent at Cover; Ex. 1002.) Thus, the '917 Patent is a post-AIA patent. AIA § 3(n)(1). This petition was filed within nine months of the '917 Patent's July 8, 2025 issue date.

V. Identification of Challenge and Relief Requested

Wealth.com requests PGR and cancellation of Claims 1-20.

A. Identification of Prior Art

Ex.	Reference	Filed	Published	Prior Art Basis
1005	Int'l Patent App. Pub. No. WO2020/028252 A2 to Racanelli et al.	9/4/2009	3/11/2010	§ 102(a)(1) § 102(a)(2)

Ex.	Reference	Filed	Published	Prior Art Basis
1007	U.S. Patent App. Pub. No. 2015/0286630 to Bateman et al.	4/8/2015	10/8/2015	§ 102(a)(1) § 102(a)(2)
1009	U.S. Patent App. Pub. No. 2017/0076381 to Dintenfass et al.	9/14/2015	3/16/2017	§ 102(a)(1) § 102(a)(2)
1010	U.S. Patent App. Pub. No. 2025/0245763 to McMillen et al.	10/26/2022	7/31/2025	§ 102(a)(2)
1011	Alice Saebom Kwak et al., <i>Validity Assessment of Legal Will Statements as Natural Language Inference</i> , FINDINGS OF THE ASSOCIATION FOR COMPUTATIONAL LINGUISTICS, EMNLP 2022, 6047-6056 (Dec. 7-11, 2022)	-	Preprints: no later than 11/17/2022 Conference Paper: no later than 2/2/2023	§ 102(a)(1)

Dr. Ingrid Hsieh-Yee, an expert research librarian, confirms *Kwak*'s public accessibility. (Hsieh-Yee Decl. ¶¶ 32-64.) Preprints of *Kwak* substantially identical to Ex. 1011 became publicly accessible through the searchable online repositories arXiv.org by November 1, 2022 (*id.* ¶¶ 36-43, 52-53, 62, 64) and SSRN by November 17, 2022. (*Id.* ¶¶ 54-60, 62-64.) Because those preprints and Ex. 1011 are substantially identical, Ex. 1011 is in substance a reprint of those preprints. Thus, the Ex. 1011 reprint is entitled to the preprints' public accessibility dates: November 1, 2022 (arXiv.org preprint) or November 17, 2022 (SSRN preprint). *See VidStream LLC v. Twitter, Inc.*, 981 F.3d 1060, 1063, 1065-1067 (Fed. Cir. 2020) (upholding a decision that a 2015 reprint was entitled to the substantially identical

original book’s 2011 public accessibility date as shown by MARC, copyright, and Library of Congress records). Ex. 1011 itself also became publicly accessible through the ACL Anthology, a searchable online repository of the Association for Computational Linguistics, by February 2, 2023. (*Id.* ¶¶ 34-35, 44-52, 63-64.)

B. Statutory Grounds of Unpatentability

Gr.	Claim(s)	Statutory Basis	Reference(s)
1	1-20	§ 101 (ineligibility)	-
2	1, 2, 4-7, 12-14, 17, 19	§ 103	<i>Racanelli with Bateman and Dintenfass</i>
3	3, 8-11	§ 103	<i>Racanelli with Bateman, Dintenfass, and McMillen</i>
4	15, 16, 18, 20	§ 103	<i>Racanelli with Bateman, Dintenfass, and Kwak</i>
5	4, 5	§ 112(b) (indefiniteness)	-
6	13	§ 112(d) (improper dependent claim)	-

VI. Technical Overview

A. Natural Language Processing

“Natural language processing (NLP) refers to using a computer to understand and process natural human language.” (White Decl. ¶ 29.) NLP can extract structured information from unstructured text, such as structured information reflecting how a will distributes assets. (*Id.* ¶¶ 30-31.) A machine-learning model, such as a large language model, can be used for NLP. (*Id.* ¶ 32.)

B. Machine Learning

Generally speaking, machine learning involves a computer model applying one or more algorithms to training data to learn patterns, make predictions, and make decisions. (White Decl. ¶ 33.) Supervised learning, a known training technique, involves training the model on input examples paired with correct outputs or classifications, typically provided by a human. (*Id.* ¶¶ 34-35.) Training a machine-learning model on hand-coded rules was another known technique. (*Id.* ¶ 36.) Extracting structured data from unstructured information was a common use for machine learning as of November 29, 2023. (*Id.* ¶¶ 37-38.)

VII. Level of Ordinary Skill in the Art

Ordinarily skilled artisans “would have had an undergraduate degree in computer science or a related field, and three to five years of industry experience with artificial intelligence and machine learning. This level of skill is approximate, and more education could have compensated for less experience, and vice versa.” (White Decl. ¶ 41.)

VIII. Prosecution History

The ’917 Patent purports to claim priority to a November 29, 2023 provisional application. (’917 Patent at Cover; Ex. 1002.) The application that became the ’917 Patent was filed on November 27, 2024. (’917 Patent at Cover.) In January 2025, the examiner rejected the claims as ineligible. (Ex. 1003, at 126-130.) In an

interview, the applicant proposed amendments that the examiner viewed favorably.

(*Id.* at 132.) On April 17, 2025, the applicant amended the claims to include “one or more machine-learning models” and “updating . . . the one or more visualizations in real-time based on changes in one or more values of the one or more assets,” among other features. (*Id.* at 134, 138-139.)

The next day, the Federal Circuit decided *Recentive Analytics*, 134 F.4th 1205. The written record does not reflect that the applicant told the examiner about *Recentive Analytics*, nor that the examiner asked the applicant to comment on *Recentive Analytics* under MPEP § 704.11(a)(L). Instead, the examiner allowed the claims two weeks later. (Ex. 1003, at 147-151.)

The '917 Patent issued on July 8, 2025. No prior art was cited or applied during prosecution. ('917 Patent at Cover; Ex. 1003.)

IX. Claim Construction

The challenged claims are unpatentable under their ordinary and customary meanings. The Board need not expressly construe any claim term at this stage.

X. Prior Art Overview

A. *Racanelli* (Ex. 1005)

Racanelli describes an estate planning system that generates flowcharts to visualize asset distributions under an estate plan. (*Racanelli* at Fig. 7; Fig. 8; [0028]-[0029], [0084]; White Decl. ¶¶ 47-48.) The flowcharts are based on estate document

inputs, among other inputs. (*Racanelli* at [0029]; White Decl. ¶ 49.) *Racanelli* describes generating estate document inputs by using NLP to identify conveyances in a will, including identifying the testator, the asset to be conveyed, and the recipient. (*Racanelli* at [0048]; White Decl. ¶ 49.) *Racanelli* also describes projecting the growth or contraction of the estate's assets over time, such as the time between spouses' deaths. (*Racanelli* at [0051], [0067]; White Decl. ¶ 50.)

B. *Bateman* (Ex. 1007)

Bateman describes a machine-learning language processing model that can identify conveyances of real property in text documents such as wills and extract structured conveyance records from those texts. (*Bateman* at [0051]-[0052], [0063], [0070], [0072], [0074], [0108]; White Decl. ¶ 51.) The structured conveyance records identify the grantor, the grantee, what is being conveyed, and other information. (*Bateman* at [0074], [0108]; White Decl. ¶ 51.) *Bateman* describes training its model on (1) text documents and corresponding human-generated structured conveyance records; and (2) hand-coded rules. (*Bateman* at [0070], [0072]; White Decl. ¶ 52.) The model can also prompt a human reviewer to select the correct value for a conveyance record's parameter, such as prompting the reviewer to select from a list of candidate names for a conveyance's grantor and grantee. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 53-54.)

C. *Dintenfass* (Ex. 1009)

Dintenfass describes a system that provides an estate portal application for managing a will and allocating assets. (*Dintenfass* at [0001], [0003], [0057], [0060], [0064]; White Decl. ¶¶ 55-56.) The system can continuously monitor asset sources and update asset values in real-time for display via the estate portal application. (*Dintenfass* at [0006], [0023], [0046], [0049]; White Decl. ¶ 57.) The system can also (1) notify a user of a change in law that could require updating the estate portal application; (2) retrieve current state law; and (3) check a will's asset allocations for compliance with state law. (*Dintenfass* at [0057], [0059], [0064]; White Decl. ¶¶ 58-59.)

D. *McMillen* (Ex. 1010)

McMillen describes a digital estate planning system. (*McMillen* at Abstract, [0018], [0027]; White Decl. ¶ 60.) *McMillen*'s system can detect life events; identify "trigger events" that may require changing a will's assets or beneficiaries; and notify a user of those trigger events. (*McMillen* at [0028]-[0029], [0038], [0041], [0043], [0045], [0047]; White Decl. ¶¶ 61-63.) *McMillen* also describes using a machine-learning model to determine an asset's baseline value; adjust that baseline value based on an image reflecting the asset's current condition; and project the asset's future value using a depreciation function and the adjusted baseline value. (*McMillen* at [0013], [0015], [0058]-[0060], [0062]; White Decl. ¶¶ 64-66.)

E. Kwak (Ex. 1011)

Kwak describes using machine-learning models to assess whether will provisions are legally valid based on input state law and factual conditions. (*Kwak* at 1, 5, 9; White Decl. ¶¶ 67-68.)

XI. The challenged claims are unpatentable.

A. Ground 1: Claims 1-20 are ineligible.

Claims 1-20 are ineligible because they merely gather data, process it, and display the results—which alone marks those claims as ineligible. *In re Killian*, 45 F.4th at 1380; *FairWarning IP*, 839 F.3d at 1093-94; *Elec. Power Grp.*, 830 F.3d at 1351-54. Analyzing the claims under the USPTO’s eligibility guidance confirms their ineligibility. MPEP § 2106. Although each claim belongs to a statutory class at Step 1, each recites ineligible subject matter not integrated into a practical application at Step 2A, and none supplies an inventive concept at Step 2B.

1. Independent Claims 1, 17, and 19

i. Claim 1

Step 2A: Claim 1 is directed to an abstract idea.

Step 2A, Prong 1. Each limitation of Claim 1 recites a mental process.

Limitation 1[a] recites “generating . . . based on inputting . . . one or more resource documents . . . one or more prompts comprising requests for information associated with resource allocation instructions for distribution of resources . . .

based on recognition of textual features of the one or more resource documents associated with the resources, wherein the one or more resource documents comprise one or more resource document fields, and wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients.” A human could perform that by reading and thinking, so limitation 1[a] recites a mental process.

“Resource documents” include human-readable documents such as wills. (’917 Patent at 5:5-11, Claim 12.) “Resource document fields” can be document fields associated with a resource recipient’s name; the name or amount of an asset to be distributed to a resource recipient; or a real property’s address—information humans can perceive. (*Id.* at 5:11-16, 7:47-63.) A “prompt” can be as simple as a question about an asset or recipient. (*Id.* at 6:26-29, 6:39-53, 6:64-7:3.) So a human could perform limitation 1[a] by reading a resource document (“inputting one or more resource documents” and “recogni[zing] . . . textual features of the one or more resource documents”) with one or more resource document fields and thinking of a question about an asset or recipient based on having read that document. Those are mental processes.

Limitation 1[b] recites “receiving . . . one or more responses to the one or more prompts.” A human could do that by perceiving a response, making that a mental process. Indeed, the specification explains that responses can include text,

numbers, or both, which humans can perceive. ('917 Patent at 33:30-31.) Responses can also include open-ended answers, a selection from a list, fill-in-the-blank responses, true-or-false responses, a numerical value or range, or a calendar date value or range—which humans can also perceive. (*Id.* at 6:29-35.)

Should the Board hold that limitation 1[b] is not a mental process, limitation 1[b] recites insignificant extra-solution data gathering, which does not confer eligibility at any later prong or step of the analysis. MPEP § 2106.05(g).

Limitation 1[c] recites “generating . . . based on inputting the one or more responses and rule data comprising one or more rules associated with the resources . . . resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields . . . and wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses.” That limitation reflects a mental process because a human can perceive that limitation’s inputs (“inputting the one or more responses and rule data comprising one or more rules associated with the resources”) and analyze them to generate that limitation’s output (the claimed “resource data”).

Starting with a human perceiving (inputting) the inputs, a human can perceive the claimed “one or more responses” as discussed for limitation 1[b]. Humans can also perceive “rule data comprising one or more rules associated with the resources.”

Per the specification, “rule data” can include “one or more rules” associated with “one or more laws.” (’917 Patent at 8:24-25, 8:36-41.) Humans can perceive laws—and therefore rule data—by reading those laws. The “one or more rules” can also be based on a will’s provision. (*Id.* at 8:41-45.) As discussed for limitation 1[a], a human can read a will and can therefore perceive a will’s provision.

Turning to the claimed output, a human could “generat[e] . . . based on inputting the one or more responses and rule data comprising one or more rules associated with the resources . . . resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields . . . and wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses” with pen and paper. Resource data can be as simple as a list of which assets should be distributed to which recipients. (’917 Patent at 5:45-52, 8:62-9:8.) A resource data field and value can be as simple as a field for a resource recipient’s name filled out with a prompt response providing that name, such as “JOHN DOE.” (*Id.* at 5:31-41, 8:57-9:1.) That example “resource data field” and “resource data field value” show that a human could generate the claimed “resource data” with pen and paper. The human could, for example, (1) draw up a form whose fields correspond to a will’s fields (such as fields for assets and recipients); and (2) fill out that form with resource data

field values based on a law or a will provision such as a conveyance (rule data) and a prompt response that the human received at limitation 1[b].

Confirming that a human can generate resource data, *Bateman* describes a human analyst generating, from documents describing conveyances in prose, structured conveyance records reflecting the grantor, what is conveyed, and grantee for each conveyance. (*Bateman* at [0051]-[0053], [0070], [0074], [0108], Claims 5 and 7; White Decl. ¶¶ 168-169, 177-178.) The human-generated structured conveyance records are resource data because they identify assets and corresponding recipients. ('917 Patent at 5:45-52, 8:62-9:8; White Decl. ¶¶ 168-169, 177-178.)

Limitation 1[d] recites “generating . . . based on the resource data, one or more indications associated with the resource allocation instructions, wherein the one or more indications comprise one or more visualizations of the distribution of the one or more assets to the one or more resource recipients.” A human could perform that limitation with pen and paper, making it a mental process.

As discussed for limitation 1[c], a human could generate “resource data” using pen and paper. The “indications associated with resource allocation instructions” generated based on that resource data “can comprise text, numerical values, images, and/or symbols (e.g., graphs and/or charts) associated with the resource data”—which a human could also produce with pen and paper. ('917 Patent at 9:9-12, 9:21-23.) And an “indication” comprising a “visualization[] of the distribution of the one

or more assets to the one or more resource recipients” can be a “chart that indicates the names of the one or more resource recipients and the assets associated with each resource recipient”—a chart that a human could “generate” by drawing it with pen and paper. (*Id.* at 9:42-49.) Confirming as much, *Racanelli* describes that wealth advisors previously drew estate planning flowcharts by hand. (*Racanelli* at [0004].)

Limitation 1[e] recites “updating . . . the one or more visualizations in real-time based on changes in one or more values of the one or more assets.” A human could perform that limitation with pen and paper, making it a mental process.

As discussed for limitation 1[d], a human could generate the claimed “one or more visualizations,” such as a “chart that indicates the names of the one or more resource recipients and the assets associated with each resource recipient,” with pen and paper. (’917 Patent at 9:42-53.) A human could also update that chart in real-time based on changes in asset values, such as by watching a real-time stock ticker and writing in updated values for stock assets listed in the chart in real time. (*Id.* at 6:54-64, 9:49-53, Claim 14.) And while the claimed “updating” occurs in real-time, a real-time mental process is still ineligible. *Elec. Power Grp.*, 830 F.3d at 1351-54 (holding that claims to gathering, analyzing, and displaying information in real time were directed to a mental process); *see also Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1364 (Fed. Cir. 2023) (holding that claims can be directed to an

abstract idea even if they “require operations that a human could not perform as quickly as a computer.”).

Step 2A, Prong 2. The remaining features of Claim 1, reproduced below, do not integrate the recited ineligible subject matter into a practical application:

#	Remaining Features
1[p]	“A computer-implemented method”
1[a]	“by a computing system comprising one or more processors” “into one or more machine-learning models” “wherein the one or more machine-learning models are configured to”
1[b]	“by the computing system”
1[c]	“by the computing system” “into the one or more machine learning models” “wherein the one or more machine-learning models are trained based on training data comprising training resource data and training rule data”
1[d]	“by the computing system”
1[e]	“by the computing system”

To start, Claim 1 does not improve machine learning or provide any other technological improvement. Assessing whether a claim provides a technological improvement starts with the specification, MPEP § 2106.04(d)(1), and includes understanding the problem facing the inventors and what the patent describes as the invention. *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 767 (Fed. Cir. 2019). But asserting a technological improvement in the specification is not enough: the claim must recite a feature that provides or embodies the asserted improvement. *Ex parte Desjardins*, Appeal No. 2024-000567, at 8-9. Here, both the specification and Claim 1 betray a lack of technological improvement.

Starting with the problem facing the inventors, the '917 Patent's background explains that resource allocation can require a "significant amount of time and effort" to manage large quantities of documents, rules, policies, and changes. ('917 Patent at 1:15-26.) Per the background, while software applications for managing resource information existed, they could be "burdensome" and "demand a significant amount of manual input." (*Id.* at 1:26-31.) The background also states that generalized applications "may not be fully suited to meeting the often specialized requirements of resource allocation." (*Id.* at 1:32-34.)

The inventors therefore sought "to automatically deal with various aspects of resources planning." ('917 Patent at 4:1-6.) The invention's supposed advantages arise from automating mental processes for estate planning and resource allocation, such as visualizations, projections, predictions, strategy, accounting for laws, and reviewing and handling documents. (*Id.* at 4:12-33, 4:41-57, 15:4-8.) But automating mental, pen-and-paper tasks—even to conserve human resources and minimize errors—does not reflect a technological improvement. *See Univ. of Fla. Rsch. Found. v. Gen. Elec. Co.*, 916 F.3d 1363, 1367-68 (Fed. Cir. 2019) (finding no "specific improvement to the way computers operate" in patent whose specification described the invention as automating pen-and-paper methodologies).

True, the specification asserts that "the disclosed technology can provide the "technical effect[s]" of "an improvement in the generation of resource data" and

“improving the effectiveness with which resources planning tasks are performed.” (’917 Patent at 14:41-67.) It also asserts that the invention can “improve the operation of a resource processing device by more effectively performing a variety of tasks with the specific benefits of providing more accurate resources planning information” and “result in tangible benefits” for systems processing resource data. (*Id.* at 15:1-4, 15:9-13.) But as discussed for limitations 1[c] and 1[d], generating resource data and processing it into the claimed visualizations are mental processes. So are the described “resources planning tasks.” (*Id.* at 4:12-33, 4:41-57, 15:4-8.) Thus, those alleged “technical effect[s],” “improvements,” and “benefits” reflect—at most—an ineligible “innovation in ineligible subject matter.” *SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1163 (Fed. Cir. 2018). In any event, the Board need not credit the specification’s conclusory, unsupported assertions about those alleged technical effects, improvements, or benefits. MPEP § 2106.04(d)(1).

The claims’ generic computing components confirm the lack of a technological improvement. The specification states that the “computing system” could be any computing device using any processor, and that the “one or more machine learning models” could be essentially any type of machine-learning model trained in essentially any way and using essentially any algorithm. (’917 Patent at 15:43-46, 15:61-62, 16:7-13, 18:59-19:10, 21:34-45.) Rather than providing a technological improvement, those generic computing components and models show

that Claim 1 is an “apply it” claim that does not integrate its excluded subject matter into a practical application. MPEP § 2106.05(f).

That the “one or more machine-learning models are trained based on training data comprising training resource data and training rule data” does not provide the required integration, either. Using selected training data, without more, is “incident to the very nature of machine learning” and does not integrate an abstract idea into a practical application. *Recentive Analytics*, 134 F.4th at 1212; *cf. Ex parte Carmody*, Appeal No. 2025-002843, at 7-8 (PTAB Dec. 31, 2025) (finding that training a specific model for each marketing tactic of a set of tactics provided a technological improvement that “enables the model for each tactic to be updated and improved separately and independently from other tactic-specific models”).

Finally, Claim 1 does not explain how to perform its method limitations with its generic components. Its method limitations—“generating,” “receiving,” and “updating”—describe results, but not how to achieve those results. That Claim 1 is “written in ‘result-based functional language’ that ‘does not sufficiently describe how to achieve these results in a non-abstract way’” confirms the lack of integration into a practical application at Step 2A, Prong 2. *Int’l Bus. Machs. Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1378 (Fed. Cir. 2022) (quoting *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, 874 F.3d 1329, 1337 (Fed. Cir. 2017)).

Step 2B: Claim 1 lacks an inventive concept.

Claim 1’s mental processes cannot supply an inventive concept. *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1371, 1376 (Fed. Cir. 2016); MPEP § 2106.05(I). Taken as an ordered combination in the context of Claim 1 as a whole, the remaining features of Claim 1 do not provide an inventive concept, either.

As discussed for Step 2A, Prong 2, the only portions of Claim 1 that do not recite mental processes are generic computing components and machine learning that provide no technological improvement. (’917 Patent at 15:43-46, 15:61-62, 16:7-13, 18:59-19:10, 21:34-45.) What’s more, the specification’s high-level description of those features (*id.*) betrays them as well-understood, routine, and conventional. *See Receptive Analytics*, 134 F.4th at 1212 (concluding that “[t]he machine learning technology described in the patents is conventional” based on the specifications requiring “any suitable machine learning” technology or technique). Dr. White’s testimony confirms that machine learning was well-understood, routine, and conventional as of November 29, 2023. (White Decl. ¶¶ 75-79.)

Also well-understood, routine, and conventional were Claim 1’s “one or more machine learning models” trained based on training resource data and training rule data. (White Decl. ¶¶ 80-86.) Training a machine-learning model that generates resource data on training resource data is a form of supervised machine learning, a well-understood, routine, and conventional technique described in *Bateman*,

Curtotti, and *Kwak*. (*Bateman* at [0070]; *Curtotti* at 6; *Kwak* at 3; White Decl. ¶¶ 34, 82.) The same references show that training a machine-learning model on rule data was well-understood, routine, and conventional; *Curtotti* even surveys past literature on that subject. (*Bateman* at [0072]; *Curtotti* at 2-3; *Kwak* at 1, 4; White Decl. ¶¶ 36, 84-86.) Combining supervised learning with training rule data was also well-understood, routine, and conventional; *Bateman* and *Kwak* employed both. (*Bateman* at [0070], [0072]; *Kwak* at 1, 4-5, 9; White Decl. ¶¶ 80, 82, 84, 86.)

Claim 1 thus recites an abstract idea performed by well-understood, routine, and conventional computing components and machine learning. And “merely reciting an abstract idea performed on a set of generic computer components, as claim 1 does here, would ‘not contain an inventive concept.’” *Two-Way Media*, 874 F.3d at 1339 (quoting *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016)). Directed to an abstract idea and lacking an inventive concept, Claim 1 is ineligible.

ii. Claims 17 and 19

Claims 17 and 19—system and CRM claims otherwise materially identical to method Claim 1—“merely graft generic computer components onto otherwise-ineligible method claims” and fall with Claim 1. *FairWarning IP*, 839 F.3d at 1096.

2. Dependent Claims 2-16, 18, and 20

Most dependent claims recite ineligible mental processes implemented by generic computing components, such as a “computing system” or machine-learning models defined purely by “results-based functional language.” *Int’l Bus. Machs.*, 50 F.4th at 1378. Those claims neither integrate their ineligible subject matter into a practical application nor supply an inventive concept. The remaining dependent claims merely limit ineligible subject matter to types of data or fields of use, which also fails to confer eligibility. *Recentive Analytics*, 134 F.4th at 1213; *SAP*, 898 F.3d at 1167; *Elec. Power Grp.*, 830 F.3d at 1355; MPEP § 2106.05(g).

Claim 2 recites an ineligible mental process of receiving a request to project an asset valuation; using resource data to project the asset valuation; and providing an indication including the projected asset valuation—all of which could be done with pen and paper. For example, a human could multiply an asset’s present value v by $(1 + r)^t$, where r is an appreciation or depreciation rate and t is time. **Claim 3** is a “do-it-with-machine-learning” version of Claim 2 that involves inputting resource data and an appreciation or depreciation rate into a “machine learning asset projection model” defined by “results-based functional language,” which does not confer eligibility. *Int’l Bus. Machs.*, 50 F.4th at 1378.

Claim 4 recites an ineligible mental process of receiving a request to project an asset distribution; using the resource data to identify relationships among entities,

which a human could do by, for example, identifying recipients in the resource data who share a last name or home address; projecting asset distributions to entities based on the resource data and relationships; and providing an indication including those projected asset distributions, which could be (and had been) done with pen and paper. (*Racanelli* at [0004].) **Claim 5** is a “do-it-with-machine-learning” version of Claim 4 that involves inputting relationships and resource data into a “machine learning distribution projection model” defined by “results-based functional language,” which does not confer eligibility. *Int’l Bus. Machs.*, 50 F.4th at 1378.

Claim 6 recites an ineligible mental process of if-then planning: receiving information about a condition associated with a resource or entity; using the condition to determine a scenario that includes a projected asset valuation or predicted asset distribution; and providing an indication including the scenario, which a human could do with pen and paper. For example, a human could project an asset’s value by multiplying the asset’s possible present value v (a condition) by $(1 + r)^t$, where r is an appreciation or depreciation rate (another condition) and t is time (another condition). **Claim 7** limits Claim 6 by specifying types of conditions such as a possible asset valuation or life expectancy, but limiting Claim 6 to specific types of data (here, types of conditions) does not confer eligibility. *Recentive Analytics*, 134 F.4th at 1213; *SAP*, 898 F.3d at 1167; *Elec. Power Grp.*, 830 F.3d at 1355; MPEP § 2106.05(g). **Claim 8** is a “do-it-with-machine-learning” version of

Claim 6 that involves inputting resource data and a condition into a “machine learning scenario model” defined by “results-based functional language,” which does not confer eligibility. *Int’l Bus. Machs.*, 50 F.4th at 1378.

Claim 9 recites an ineligible mental process of learning about events associated with resources; determining whether an event satisfies a criterion; and providing an indication including a notification about an event satisfying the criterion, which a human could do with pen and paper. **Claim 11** limits Claim 9 by specifying event types, but limiting Claim 9 to specific types of data (here, events) does not confer eligibility. *Recentive Analytics*, 134 F.4th at 1213; *SAP*, 898 F.3d at 1167; *Elec. Power Grp.*, 830 F.3d at 1355; MPEP § 2106.05(g).

Claims 12 and 14 limit Claim 1 by specifying types of resource documents (Claim 12) or assets/recipients (Claim 14), but limiting Claim 1 by types of data or fields of use does not confer eligibility. *Recentive Analytics*, 134 F.4th at 1213; *SAP*, 898 F.3d at 1167; *Elec. Power Grp.*, 830 F.3d at 1355; MPEP § 2106.05(g).

Claim 13 recites an ineligible mental process of determining the jurisdiction (location comprising an administrative division) where an asset is, then determining a rule in that jurisdiction. A human could do that with a map and basic legal research.

Claims 15, 18, and 20 recite an ineligible mental process familiar to any attorney who has written a client-alert article about a change in law: learning about a change in law (rule modification); updating the law the attorney uses to practice

(rule data) based on the change in law; and generating an indication including a notification about the change in law (rule modification notification), which a human could do with pen and paper. Although those claims also specify that the “one or more rules” are “based on one or more regulations associated with the resources” (e.g., laws), that merely limits those claims to a specific type of rule data, which does not confer eligibility. *Recentive Analytics*, 134 F.4th at 1213; *SAP*, 898 F.3d at 1167; *Elec. Power Grp.*, 830 F.3d at 1355; MPEP § 2106.05(g).

Finally, **Claims 10 and 16** recite sending an event notification (Claim 10, depending from Claim 9) or rule modification notification (Claim 16, depending from Claim 15) to a remote computing device of an entity authorized to receive the notification. Those claims’ subject matter is ineligible as:

- A mental process, *see FairWarning IP*, 839 F.3d at 1093-94 (holding that notifying a user of improper access to personal health information is part of a mental process);
- A method of organizing human activity, *Salwan v. Iancu*, 825 F. App’x 862, 864-866 (Fed. Cir. 2020) (non-precedential) (holding that a process culminating in sending a healthcare report to an authorized recipient is an ineligible method of organizing human activity); and

- Insignificant extra-solution activity. *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) (“That a computer receives and sends the information over a network—with no further specification—is not even arguably inventive.”); *Ex parte Ali*, Appeal No. 2022-002962, at 9 n.12 (PTAB Dec. 14, 2023) (for a claim that recited notifying an administrator, holding that “notifying” constitutes insignificant extra-solution activity).

B. Ground 2: Claims 1, 2, 4-7, 12-14, 17, and 19 would have been obvious over *Racanelli* with *Bateman* and *Dintenfass*.

1. Combination of *Racanelli*, *Bateman*, and *Dintenfass*

i. Analogous Art

Racanelli, *Bateman*, and *Dintenfass* are analogous art at least because each shares a field of endeavor with the '917 Patent. (White Decl. ¶¶ 87-95.) The '917 Patent's field of endeavor is resource allocation, which includes estate planning. ('917 Patent at Cover, Abstract, 1:6-11, 3:66-4:6, 4:21-24, 7:32-46, 7:56-60, 9:2-8, Claims 1, 12, 17, and 19; White Decl. ¶¶ 88-92.) *Racanelli*, *Bateman*, and *Dintenfass* belong to the field of resource allocation. (*Racanelli* at Abstract, [0048], [0084]; *Bateman* at [0003], [0008], [0051]-[0052], [0059], [0063], [0074], [0108]; *Dintenfass* at [0001], [0003], [0057]-[0059]; White Decl. ¶¶ 93-95.)

ii. Rationale for Combination

Ordinarily skilled artisans would have provided Racanelli's computing system with Bateman's machine-learning-with-human-review technique for identifying conveyances of assets and interests in assets in wills and other documents and extracting structured conveyance records.

Racanelli discloses a computing system that generates flowcharts visualizing how an estate plan distributes assets to beneficiaries. (*Racanelli* at [0029], [0070]; White Decl. ¶¶ 97-98.) *Racanelli* generates those flowcharts based on, among other inputs, estate document inputs that reflect which recipients will receive which assets. (*Racanelli* at [0029], [0043], [0048]; White Decl. ¶¶ 98-99.) *Racanelli* describes obtaining estate document inputs by using NLP to extract conveyances, such as a testator bequeathing a car to a nephew, from the text of a will or other estate planning document. (*Racanelli* at [0048]; White Decl. ¶ 100.)

Bateman, like *Racanelli*, describes extracting conveyances of assets from documents such as wills. (*Bateman* at [0051]-[0052], [0103]-[0109]; White Decl. ¶ 101.) *Bateman* describes applying a machine-learning language processing model to a document that has undergone optical character recognition (OCR), such as a scanned will, to extract structured conveyance records from the document's text. (*Bateman* at [0008], [0051]-[0052], [0061]-[0074], [0105], [0108]; White Decl. ¶¶ 102-106.) Structured conveyance records can identify, for example, the grantor and grantee of a conveyance; a plot of land in which an interest is conveyed; and the interest conveyed. (*Bateman* at [0059], [0108]; White Decl. ¶ 101.)

Bateman acknowledges, however, that NLP may successfully extract only some parameters of a conveyance. (*Bateman* at [0071]; White Decl. ¶ 107.) *Bateman* therefore combines machine learning with human review to ensure the accuracy of its structured conveyance records. (*Bateman* at [0067], [0071]; White Decl. ¶ 108.) *Bateman*'s language processing model can generate lists of candidate values for a structured conveyance record's parameters, such as candidate names for the grantor and grantee. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 108-109.) *Bateman* describes permitting a human to select the correct value (*e.g.*, the correct name for the grantor or grantee) and applying the selected value to the structured conveyance record. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 108-109.)

Ordinarily skilled artisans would have provided *Racanelli*'s computing system with *Bateman*'s machine-learning-with-human-review technique for identifying conveyances of assets and interests in assets in wills and other documents. (White Decl. ¶¶ 96, 112-113.) The human review in *Bateman*'s machine-learning-with-human-review technique would have yielded more accurate extractions of conveyances from wills than *Racanelli*'s NLP technique alone. (*Id.* ¶ 112.) Further, both references operate on similar inputs (such as wills) to generate similar outputs (structured data reflecting the grantor, grantee, and what is conveyed). (*Racanelli* at [0029], [0038], [0048]; *Bateman* at [0051]-[0052], [0108]; White Decl. ¶ 113.) *Bateman*'s machine-learning-with-human-review technique

therefore would have been well-suited for generating the estate document inputs used to generate *Racanelli*'s flowcharts. (*Racanelli* at [0029]; White Decl. ¶ 113.)

Finally, *Bateman*'s technique permits tracking conveyances of rights and subsets of rights in real-property assets at a more granular level than *Racanelli* describes. (White Decl. ¶¶ 110-111.) For example, *Bateman*'s language processing model can determine a jurisdiction of a plot of land in which an interest is conveyed and access a jurisdiction-specific ontology of real-property rights to track conveyances of granular subsets of rights in the property. (*Bateman* at [0048], [0055], [0108]; White Decl. ¶¶ 110-111.) The additional granularity that *Bateman* can provide also would have motivated ordinarily skilled artisans to use *Bateman*'s technique to generate *Racanelli*'s estate document inputs. (White Decl. ¶ 112.)

Ordinarily skilled artisans would have provided Racanelli's computing system with Dintenfass's techniques for monitoring asset values in real-time and updating an estate planning visualization in real-time as asset values change.

As discussed, *Racanelli*'s computing system can generate flowcharts that visualize an estate plan's distribution of assets. (*Racanelli* at [0029], [0070]; White Decl. ¶¶ 114-115.) Those flowcharts can be updated automatically based on changes in a client's balance sheet. (*Racanelli* at [0085]; White Decl. ¶¶ 115.)

Meanwhile, *Dintenfass* describes an estate portal application with an interface that displays the user's assets' values. (*Dintenfass* at [0062]; White Decl. ¶ 116.) *Dintenfass* further discloses continuously monitoring real-time data feeds associated

with the user's assets (such as financial accounts) and updating an estate planning display in real-time based on changes in the assets' values. (*Dintenfass* at [0004]-[0006], [0049]; White Decl. ¶ 117.)

Ordinarily skilled artisans would have provided *Racanelli*'s computer system with *Dintenfass*'s techniques for monitoring asset values in real-time and updating an estate planning display in real-time based on changes in the assets' values. (White Decl. ¶¶ 96, 118-122.) *Racanelli* and *Dintenfass* explain that disposing of an asset while the asset's owner is still alive can, in some circumstance, reduce tax liability or transaction costs associated with the asset's disposition. (*Racanelli* at [0031]; *Dintenfass* at [0054]; White Decl. ¶¶ 119-120.) Updating *Racanelli*'s flowcharts in real-time as the estate's assets' values change as taught by *Dintenfass* would have predictably provided an estate planner or client the most up-to-date information to decide whether to dispose of an asset while the client lives. (White Decl. ¶¶ 121-122.) Combining *Racanelli* and *Dintenfass* in that way also would have avoided problems associated with out-of-date asset values, such as a client bouncing a gift check due to out-of-date information about a checking account balance. (*Id.* ¶ 121.)

iii. Reasonable Expectation of Success

Combining *Racanelli*, *Bateman*, and *Dintenfass* would have required only routine programming within the skill of ordinarily skilled artisans to add *Bateman*'s and *Dintenfass*'s techniques to *Racanelli*'s computing system. (White Decl. ¶ 123.)

2. Claim 1

i. 1[p]

To the extent the preamble is limiting, *Racanelli* discloses a computer-implemented method. (*Racanelli* at [0028], [0070]; White Decl. ¶¶ 124-125.)

ii. 1[a] / 17[c] / 19[a]¹

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 126-143.) To start, *Racanelli* discloses a computing system comprising one or more processors: a computer system with a processing unit. (*Racanelli* at [0070], [0072]; White Decl. ¶¶ 127-128.)

Racanelli and *Bateman* each disclose one or more resource documents, wherein the one or more resource documents are associated with the resources, and wherein the one or more resource documents comprise one or more resource document fields. (White Decl. ¶¶ 129-130, 134-135.) Per the '917 Patent, wills and trusts are examples of resource documents associated with resources, and “resource document fields can be associated with one or more entities and/or one or more assets.” ('917 Patent at 5:3-11, 7:38-46, 7:48-50, Claim 12 (quoted material at 7:48-

¹ Claim 1's method limitations also appear as materially identical “operation” limitations in Claims 17 and 19, so *Wealth.com* addresses them together here. Limitations 1[a] – 1[e] correspond to limitations 17[c] – 17[g] and 19[a] – 19[e].

50); White Decl. ¶¶ 129-130.) *Racanelli* discloses resource documents: wills and trusts. (*Racanelli* at [0048]; White Decl. ¶ 129.) *Racanelli* further discloses an example will with “common language structures” (resource document fields) corresponding to a testator (entity), a car (an asset), and a recipient (another entity): “I [conveyor] leave my car [asset to be conveyed] to my nephew [heir (apparent) or intended beneficiary].” (*Racanelli* at [0048]; White Decl. ¶ 130.) *Bateman*, in turn, describes a will as an example of a document with prose resource document fields describing a grantor (entity), a grantee (entity), and what is being conveyed (asset). (*Bateman* at [0052]; White Decl. ¶¶ 134-135.)

Racanelli and *Bateman* each disclose resource allocation instructions for distribution of resources, wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients. (White Decl. ¶¶ 131-132, 136.) *Racanelli* describes a will that includes instructions or conveyances for allocating and distributing assets to recipients, such as allocating and distributing a car (asset of the resources) to a nephew (entity comprising a resource recipient). (*Racanelli* at [0048]; White Decl. ¶ 131.) Other assets in *Racanelli* include cash, securities, and real property. (*Racanelli* at [0035]-[0036]; White Decl. ¶ 132.) *Racanelli* also describes a will with a specific bequest to allocate and distribute an asset to a recipient spouse. (*Racanelli* at [0045]; White Decl. ¶ 132.) *Bateman*, meanwhile,

describes that documents such as wills include “legally operative conveyances of interests in real property,” whose instructions include allocating and distributing an interest in real property (asset of the resources) to a grantee (entity comprising a resource recipient). (*Bateman* at [0052]; White Decl. ¶ 136.)

Bateman discloses generating, based on inputting one or more resource documents into one or more machine-learning models, one or more prompts comprising requests for information associated with resource allocation instructions for distribution of resources, wherein the one or more machine-learning models are configured to generate the one or more prompts based on recognition of textual features of a resource document associated with the resources. (White Decl. ¶ 133.)

To start, *Bateman* describes a language processing model trained on machine-learning algorithms and hand-coded rules, which is a machine-learning model. (*Bateman* at [0070]-[0073]; White Decl. ¶ 137.) *Bateman* describes inputting into that language processing model a will (resource document associated with the resources) that has undergone optical character recognition to recognize its text (textual features). (*Bateman* at [0061], [0063], [0066], [0071]-[0072], [0074]-[0075], [0108]; White Decl. ¶ 138.) As *Bateman* explains, “The one or more language processing models may take as input the text of a given document and extract parameters of conveyance records.” (*Bateman* at [0063].)

Bateman's language processing model can, based on the document's text, generate a list of candidate values for a conveyance parameter so that a human reviewer can select the appropriate candidate value. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 139-140.) For example, *Bateman* describes its language processing model generating, based on the document's text, a list of candidate names (values) for a conveyance's grantor (parameter) and grantee (parameter) so that a human can select the appropriate names for the grantor and grantee. (*Bateman* at [0067]; White Decl. ¶ 140.) Per the '917 Patent, a list from which a human can make a selection is an example of a prompt. ('917 Patent at 6:26-32; White Decl. ¶ 141.)

Bateman's prompts to select values from lists of candidate values for a conveyance record parameter include "requests for information associated with resource allocations for distribution of resources . . . wherein the resource allocation instructions are associated with distribution of one or more assets of the resources to one or more entities comprising one or more resource recipients" in that the prompts request information about the grantor conveying the asset; the grantee receiving the asset; and what asset (or interest in the asset) is being conveyed according to a will's provisions. (*Bateman* at [0051]-[0052], [0067], [0071]; White Decl. ¶ 141.)

Finally, as discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *Bateman*'s techniques, including generating a prompt as claimed. (White Decl. ¶ 142.)

iii. 1[b] / 17[d] / 19[b]

This limitation would have been obvious over *Racanelli* in view of *Bateman*. (White Decl. ¶¶ 144-148.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious the computing system generating one or more prompts. (*Id.* ¶ 145.) *Bateman* further discloses receiving a response to the generated prompts: a user selecting the appropriate value for a parameter of a conveyance record, such as the names of a conveyance’s grantor and grantee. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 146-147.) “The received selection, upon receipt, may be applied to the corresponding conveyance record.” (*Bateman* at [0067].) Finally, as discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s computing system to implement *Bateman*’s techniques, including receiving a prompt response. (White Decl. ¶ 148.)

iv. 1[c] / 17[e] / 19[c]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 149-184.) As discussed, *Racanelli* discloses a computing system; *Bateman* discloses a machine-learning model; and *Racanelli* with *Bateman* renders obvious the computing system receiving one or more prompt responses. (*Id.* ¶¶ 150-151.) *Bateman* teaches the rest of this limitation: (1) how the claimed resource data is generated; (2) how that generated resource data has the claimed fields and values; and (3) how the claimed machine-learning model is trained.

(1) Bateman discloses generating resource data based on inputting the one or more responses and rule data comprising one or more rules associated with the resources into the one or more machine-learning models.

To start, *Bateman* discloses inputting a prompt response into its language processing model. (White Decl. ¶¶ 154-156.) *Bateman* explains that manual inputs may be selected while the language processing model is extracting structured conveyance records. (*Bateman* at [0061]; White Decl. ¶ 154.) As an example of a manual input, *Bateman* describes a human reviewer selecting, from a list of candidate values, the correct value for a parameter of a conveyance record—such as the grantor’s and grantee’s names—which selection is a response to a prompt. (*Bateman* at [0067], [0071]; White Decl. ¶ 155.) *Bateman* explains that the human reviewer’s selection is received and applied to the structured conveyance record being extracted, confirming that the selection (response) is input into the language processing model. (*Bateman* at [0067]; White Decl. ¶¶ 155-156.)

Bateman also discloses inputting into that model three forms of rule data comprising one or more rules associated with the resources. (White Decl. ¶ 157.)

First, *Bateman* discloses inputting a will whose provisions reflect conveyances of interests in real property into its language processing model. (*Bateman* at [0052], [0063]; White Decl. ¶ 158.) The ’917 Patent explains that the one or more rules associated with the resources can be based on provisions of a will,

so the will provisions *Bateman* describes constitute one or more rules associated with the resources. ('917 Patent at 8:41-45; White Decl. ¶ 158.)

Second, *Bateman* discloses inputting a jurisdiction-specific ontology of real-property rights into its language processing model. (*Bateman* at [0048], [0070], [0072]; White Decl. ¶ 159.) A jurisdiction-specific ontology includes rules associated with real property that identify the rights and subsets of rights in real property that can be conveyed. (*Bateman* at [0048]; White Decl. ¶ 159.) *Bateman* describes that “some embodiments may select a corresponding ontology according to the jurisdiction in which land is disposed in the course of performing analyses described herein.” (*Bateman* at [0048].) *Bateman*’s language processing model performs those analyses, which shows that the selected ontology is input into that model. (*Bateman* at [0070], [0072]; White Decl. ¶ 159.)

Third, *Bateman* discloses inputting hand-coded rules, such as regular expressions, nested if-then-else statements, and other rules into its language processing model. (*Bateman* at [0069], [0072]; White Decl. ¶ 160.) *Bateman* describes training its language processing model with those rules. (*Bateman* at [0072]; White Decl. ¶ 160.) Those hand-coded rules are associated with the resources because the language processing model uses them to identify conveyances of resources. (*Bateman* at [0069]; White Decl. ¶ 160.)

Bateman further discloses that its language processing model generates structured conveyance records based on the one or more responses and one or more rules input into that language processing model. (White Decl. ¶ 161.)

For the input one or more responses, *Bateman* describes applying the human reviewer's selected value for a conveyance parameter—a response to a prompt—to the structured conveyance record being generated. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 161-162.) “The received selection, upon receipt, may be applied to the corresponding conveyance record.” (*Bateman* at [0067].)

For the input one or more rules, *Bateman* discloses that its structured conveyance records are based on all three types of rule data input into its language processing model: provisions of a will, a jurisdiction-specific ontology, and hand-coded rules. (White Decl. ¶¶ 163-167.) For provisions of a will, *Bateman* describes inputting a will (including provisions conveying property) into a language processing model to generate structured conveyance records. (*Bateman* at [0052], [0063]; White Decl. ¶ 164.) For a jurisdiction-specific ontology, *Bateman* describes tracking interests in real property based on a jurisdiction-specific ontology, so ordinarily skilled artisans would have understood that the structured conveyance records *Bateman* generates to track those interests in real property are based on that ontology. (*Bateman* at [0048], [0074], [0108]; White Decl. ¶¶ 165-166.) For hand-coded rules, *Bateman* describes training its language processing model to extract

structured conveyance records based on those rules, so the structured conveyance records are based on those rules. (*Bateman* at [0069], [0072]; White Decl. ¶ 167.)

Finally, *Bateman*'s structured conveyance records are "resource data" as described and claimed in the '917 Patent. The '917 Patent describes data reflecting which recipients are to receive which assets as an example of resource data. ('917 Patent at 5:45-52.) Like that example of resource data, *Bateman*'s structured conveyance records reflect the grantor, the grantee, and what is being conveyed. (*Bateman* at [0074], [0108]; White Decl. ¶¶ 168-169.) Those structured conveyance records also have the data structure that Claim 1[c] prescribes, to be discussed next.

(2) The resource data that Bateman generates comprises one or more resource data fields based on the one or more resource document fields and one or more resource data values that correspond to the one or more resource data fields and that are based on the one or more responses.

Bateman's structured conveyance records include fields whose values identify the grantor, the grantee, and what is being conveyed. (*Bateman* at [0074], [0108], Claim 1; White Decl. ¶¶ 170-171.) As *Bateman*'s structured conveyance records are resource data, the fields in those structured conveyance records and their corresponding values are resource data fields with corresponding resource data values. (White Decl. ¶ 171.) Those resource data fields correspond to resource document fields in a will that identify the grantor, what is being conveyed, and the grantee. (*Bateman* at [0052]; White Decl. ¶ 172.) Finally, *Bateman* discloses basing resource data field values on prompt responses: for example, applying a selected

name for a grantor to the grantor field of a structured conveyance record and applying a selected name for a grantee to the grantee field of a structured conveyance record. (*Bateman* at [0067], [0071]; White Decl. ¶¶ 173-175.)

(3) Bateman's machine-learning model is trained on training data comprising training resource data and training rule data.

Bateman describes training its language processing model on unstructured text documents and corresponding manually populated structured conveyance records. (*Bateman* at [0070], Claims 5 and 7; White Decl. ¶¶ 176-179.) As structured conveyance records are resource data, training structured conveyance records are training resource data. (White Decl. ¶¶ 177-178.) Thus, *Bateman's* language processing model is trained on training resource data. (*Id.* ¶ 179.)

Bateman's language processing model is also trained on two forms of training rule data. *First*, *Bateman* discloses training its language processing model on unstructured text documents with provisions for conveying property, such as wills. (*Bateman* at [0051]-[0052], [0070]; White Decl. ¶¶ 180-181.) Will provisions are an example of rule data, so will provisions used for training are training rule data. ('917 Patent at 8:41-45; White Decl. ¶ 181.) *Second*, *Bateman* discloses training its model on hand-coded rules. (*Bateman* at [0072]; White Decl. ¶¶ 182-183.)

In sum, *Bateman* discloses generating the claimed resource data in the claimed manner. Finally, as discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would

have used *Racanelli*'s computing system to implement *Bateman*'s techniques, including generating resource data as claimed. (White Decl. ¶ 184.)

v. 1[d] / 17[f] / 19[d]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 185-198.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious resource data. (*Id.* ¶¶ 186-187.)

Racanelli discloses a computing system that generates flowcharts based on estate document inputs reflecting which recipients will receive which assets under a will. (*Racanelli* at [0029], [0033], [0070], [0084]-[0085]; White Decl. ¶¶ 188, 196.) As discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used the structured conveyance records (resource data) that *Bateman* generates as the estate document inputs for those flowcharts, as those structured conveyance records reflect which recipients will receive which assets under the will. (*Bateman* at [0074], [0108]; White Decl. ¶¶ 187, 197.) *Racanelli* with *Bateman* therefore renders obvious generating *Racanelli*'s flowcharts based on the resource data generated by the combination of *Racanelli* and *Bateman*. (White Decl. ¶¶ 197-198.)

The flowcharts that *Racanelli* describes generating are “indications associated with the resource allocation instructions” that include a “visualization[] of the distribution of the one or more assets to the one or more resource recipients.” (White Decl. ¶¶ 188-195.) *Racanelli* describes “customizable and annotatable flowcharts

illustrating future dispositions of the estate.” (*Racanelli* at [0085]; White Decl.

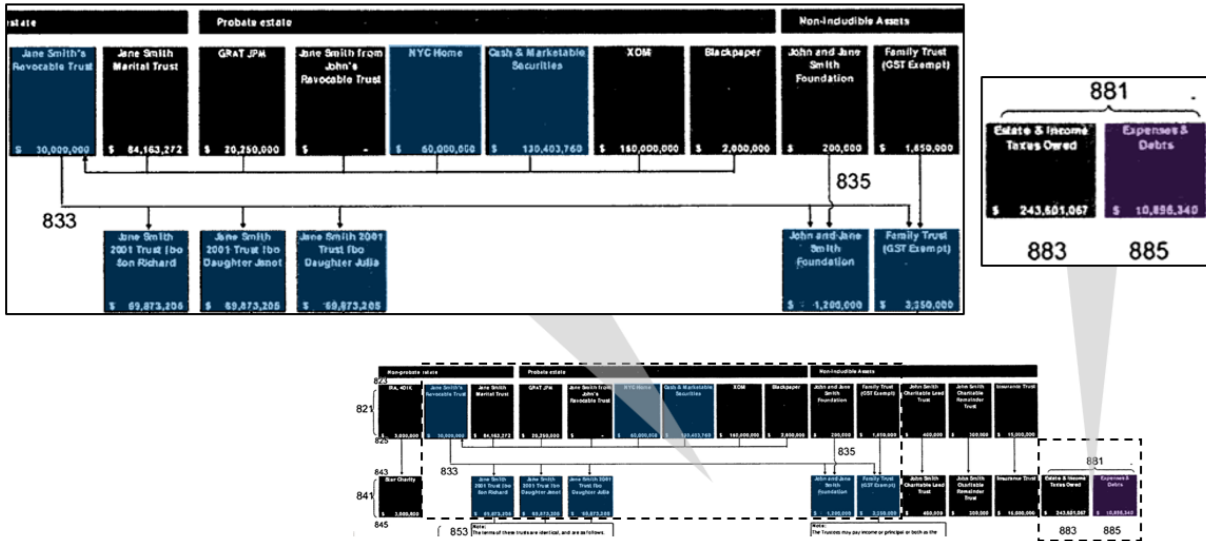
¶ 188.) *Racanelli*’s Figures 7 and 8 depict flowcharts that can be automatically generated to visualize asset distributions to recipients according to resource allocation instructions in a will. (*Racanelli* at Fig. 7, Fig. 8, [0055]-[0058]; White Decl. ¶¶ 189-195.) Figure 7 depicts the distributions of John Smith’s assets to recipients based on John Smith’s will, while Figure 8 depicts distributions of Jane Smith’s assets to recipients based on Jane Smith’s will, Jane Smith having survived John Smith. (*Racanelli* at Fig. 7, Fig. 8, [0055]-[0058]; White Decl. ¶¶ 189-195.)

Turning specifically to the flowchart shown in Figure 8, the legend at bottom left states that the flowchart is based on **Jane Smith’s Will dated 10/12/2003**:

The information for the analysis is derived from the following documents provided by the client: Jane Smith's Will dated 10/12/2003		
Estimated gross estate:	452,817.822	899
Estimated estate administration expenses:	(8,386.240)	
Debit:	(1,800,000)	
Estimated estate to net:	(243,601.597)	
Estimated income taxes:	0	
The information for the analysis is derived from the following documents provided by the client: Jane Smith's Will dated 10/12/2003		

(*Racanelli* at Fig. 8 (detail; annotations and callout added); White Decl. ¶ 193.)

That flowchart, a detail of which appears below, depicts asset distributions to recipients according to resource allocation instructions, including **the distribution of probate assets including NYC Home and Cash & Marketable Securities into Jane Smith’s Revocable Trust, then to (1) the Jane Smith 2001 Trusts for son Richard, daughter Janet, and daughter Julia; (2) the John and Jane Smith Foundation; and (3) a family trust; and expenses and debts 885 to be paid out of the estate**, as shown below:



(*Racanelli* at Fig. 8 (detail; annotations and callouts added); White Decl. ¶ 194.)

vi. 1[e] / 17[g] / 19[e]

This limitation would have been obvious over *Racanelli* with *Bateman* and *Dintenfass*. (White Decl. ¶¶ 199-204.) As discussed, *Racanelli* discloses a computing system; *Racanelli* and *Bateman* each disclose assets; and *Racanelli* with *Bateman* renders obvious one or more visualizations. (*Id.* ¶¶ 200-201.)

Racanelli describes automatically updating its flowcharts—the one or more visualizations—based on changes in asset values in a balance sheet. (*Racanelli* at [0085]; White Decl. ¶ 202.) *Dintenfass* discloses continuously monitoring asset values in real-time and updating an estate planning display in real-time based on asset value changes, including a software module “configured to continuously monitor the one or more sources of user assets; and update the asset value of the user assets associated with the one or more sources of user assets in real-time for display

on the estate portal application.” (*Dintenfass* at [0003], [0006], [0046], [0049], [0062] (quoted material at [0006]); White Decl. ¶ 203.)

As discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s computing system to implement *Dintenfass*’s techniques for real-time asset-value monitoring and updating estate planning displays in real-time as assets values change. (White Decl. ¶ 204.) Thus combined, *Racanelli*’s computing system would have updated the generated flowcharts in real-time based on changes in asset values as *Dintenfass* teaches—rendering limitation 1[e] obvious. (*Id.*)

3. Claim 2

i. 2[p]

See Claim 1. (White Decl. ¶ 205.)

ii. 2[a]

This limitation would have been obvious over *Racanelli*. (White Decl. ¶¶ 206-211.) *Racanelli* discloses implementing its techniques with its computing system. (*Racanelli* at [0070]; White Decl. ¶¶ 207-208.) *Racanelli* further discloses that the computing system receives user commands and executes commands to implement those techniques. (*Racanelli* at [0078], [0080]; White Decl. ¶ 208.) *Racanelli* thus discloses a computing system that receives commands to perform *Racanelli*’s disclosed techniques. (White Decl. ¶ 208.)

One such technique involves projecting asset values for an estate's assets. (*Racanelli* at [0032], [0051], [0067]; White Decl. ¶¶ 209-210.) *Racanelli* describes estimating the “growth or contraction of assets and liabilities between the death of the first and second spouses (or other events)” based on a “number of years between significant events or estimated scenarios” input by an estate planner. (*Racanelli* at [0051]; White Decl. ¶ 209.) *Racanelli* also describes estimating an estate's growth based on an asset-based rate and timing or event inputs. (*Racanelli* at [0067]; White Decl. ¶ 210.) As *Racanelli* discloses both (1) a computing system that executes commands from a user; and (2) projecting an asset valuation based on input from an estate planner, ordinarily skilled artisans would have recognized that *Racanelli*'s computing system receives a request associated with a projected asset valuation of the one or more assets. (White Decl. ¶ 211.)

iii. 2[b]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 212-220.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious resource data that reflects which recipients will receive which assets. (*Id.* ¶¶ 213-214.)

Racanelli's computing system can project asset values for an estate's assets. (*Racanelli* at [0032], [0051], [0067], [0070]; White Decl. ¶¶ 216-217.) *Racanelli* discloses generating “estate plan estimates”—such as asset value projections—

based on “conveyance instructions” that reflect which recipients will receive which assets. (*Racanelli* at [0067], [0069] (quoted material at [0069]); White Decl. ¶¶ 218-219.) Thus, *Racanelli* discloses a computing system that projects asset values for an estate’s assets based on data reflecting which recipients will receive which assets—*i.e.*, the claimed resource data. (White Decl. ¶ 220.) *Racanelli* with *Bateman* therefore renders obvious determining, by the computing system, based on the resource data, the projected asset valuation of the one or more assets. (*Id.*)

iv. 2[c]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 221-224.) As discussed, *Racanelli* with *Bateman* renders obvious the claimed one or more indications: flowcharts visualizing the flow of assets to recipients. (*Id.* ¶¶ 221-223.) As also discussed, *Racanelli* with *Bateman* renders obvious projecting asset values for an estate’s assets based on resource data. (*Racanelli* at [0032], [0051], [0067]; White Decl. ¶ 224.) *Racanelli* further discloses visualizing “alternative timing or event input scenarios” in corresponding flowcharts. (*Racanelli* at [0069]; White Decl. ¶ 224.) One such scenario is a projected asset valuation. (*Racanelli* at [0067], [0069]; White Decl. ¶ 224.)

4. Claim 4

i. 4[p]

See Claim 1. (White Decl. ¶ 225.)

ii. 4[a]

This limitation would have been obvious over *Racanelli*. (White Decl. ¶¶ 226-231.) As discussed, *Racanelli* discloses a computing system. (*Id.* ¶ 227.) As also discussed, that computing system receives commands to perform the techniques that *Racanelli* discloses. (*Racanelli* at [0070], [0078], [0080]; White Decl. ¶ 228.)

One such technique is projecting asset distributions to recipients (entities) under various simulated circumstances. (*Racanelli* at [0029], [0084]; White Decl. ¶¶ 229-230.) The simulated circumstances can include timing or event inputs from an estate planner, such as a spouse's projected date of death. (*Racanelli* at [0029], [0033], [0051], [0057]; White Decl. ¶ 230.) As *Racanelli* discloses both (1) a computing system that executes commands from a user; and (2) projecting asset distributions to recipients based on inputs from an estate planner, ordinarily skilled artisans would have recognized that *Racanelli*'s computing system receives a request associated with a projected asset distribution of the one or more assets to the one or more entities. (White Decl. ¶ 231.)

iii. 4[b]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 232-237.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious resource data. (*Id.* ¶¶ 233-234.)

The resource data includes the names of recipients extracted from a will or other document. (*Bateman* at [0067], [0071], [0074], [0108]; White Decl. ¶ 235.) *Bateman*'s language processing model can identify relationships among named entities extracted from a document: "an NLP model may be configured to identify the relationships among named entities (e.g., who is the wife of whom)." (*Bateman* at [0066]; *see also* White Decl. ¶¶ 235-236.) Identifying relationships among extracted named entities implies that *Bateman*'s language processing model determines relationships between entities based on extracted information—*i.e.*, the structured conveyance records that include the recipients' names, which records constitute the claimed resource data as discussed. (White Decl. ¶ 236.) Finally, as discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *Bateman*'s techniques, including determining relationships between entities. (White Decl. ¶ 237.)

iv. 4[c]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 238-244.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious resource data and one or more relationships between the one or more entities. (*Id.* ¶¶ 239-241.) As also discussed, *Racanelli* with *Bateman* renders obvious generating a flowchart that shows a plurality of projected asset distributions based on assets identified in resource data,

the flowchart reflecting which recipients are to receive which assets. (*Id.* ¶ 242.)

Racanelli further teaches two examples of projecting asset distributions based on the assets reflected in the resource data and relationships between entities (resource recipients). (*Id.* ¶¶ 242-244.)

First, *Racanelli* describes determining a plurality of projected asset distributions based on the relationship of spouses who are recipients under each other's wills. (*Racanelli* at [0045]; White Decl. ¶ 243.) For example, *Racanelli* describes simulating a plurality of estate dispositions (distributions of assets identified in the resource data) based on the relative timing of the spouses' deaths. (*Racanelli* at [0029], [0032]-[0033]; White Decl. ¶ 243.)

Second, *Racanelli* describes determining a plurality of projected asset distributions based on relationships between the testator's recipient children and recipient grandchildren. (*Racanelli* at [0033], [0057]; White Decl. ¶ 244.) For example, *Racanelli* describes "additional iterations of the disposition flowcharts" for "multiple generations of conveyances (for example, to model the estate disposition after the death of children and grand-children)." (*Racanelli* at [0033]; *see also id.* at [0057]; White Decl. ¶ 244.)

v. 4[d]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 245-248.) As discussed, *Racanelli* with *Bateman* renders obvious

the claimed one or more indications: flowcharts visualizing the flow of assets to recipients. (*Id.* ¶ 246.) As also discussed, *Racanelli* with *Bateman* renders obvious projecting asset distributions based on resource data and relationships between entities. (*Id.* ¶ 247.) *Racanelli* further discloses including those projected asset distributions (whether for two spouses who are recipients under each other’s wills, or for a testator’s children and grandchildren) in “additional iterations of the disposition flowcharts.” (*Racanelli* at [0033], [0084] (quoted material at [0033]); White Decl. ¶ 248.)

5. Claim 5

i. 5[p]

See Claim 4. (White Decl. ¶ 249.)

ii. 5[a]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 250-257.) As discussed, *Racanelli* with *Bateman* renders obvious a machine-learning model that generates resource data reflecting which recipients are to receive which assets—*i.e.*, projected asset distributions. (*Id.* ¶¶ 251-252.) That alone makes the machine-learning model a distribution projection model. (*Id.*)

It also would have been obvious to configure *Bateman*’s machine-learning model to generate *Racanelli*’s projected asset distributions for recipient spouses and multi-generational conveyances, discussed for limitation 4[b] and 4[c]. (White Decl.

¶¶ 253-254.) As discussed, *Bateman*'s machine-learning model generates the inputs for those projected asset distributions—resource data and relationship data—making it logical and obvious to configure *Bateman*'s machine-learning model generate the projected asset distributions from those inputs. (*Id.* ¶¶ 252-255.) At bottom, *Racanelli*'s projected asset distributions are data visualizations—“additional iterations of the disposition flowcharts”—and having a machine-learning model generate data visualizations was a known, easy-to-use way to generate data visualizations. (*Racanelli* at [0033]; White Decl. ¶¶ 256-257.)

iii. 5[b]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 258-266.) As discussed, *Racanelli* with *Bateman* renders obvious a machine-learning distribution projection model; the same disclosures teach a model configured to generate the projected asset distribution. (*Id.* ¶ 262.) As also discussed, it would have been obvious for that machine-learning model to use the resource data and relationship data as inputs to generate *Racanelli*'s projected asset distributions for recipient spouses and multi-generational conveyances to recipient children and grandchildren. (*Id.* ¶¶ 263-266; *Bateman* at [0066]; *Racanelli* at [0029], [0032]-[0033], [0045], [0057].)

6. Claim 6

i. 6[p]

See Claim 1. (White Decl. ¶ 267.)

ii. 6[a]

Racanelli discloses this limitation. (White Decl. ¶¶ 268-276.) As discussed, *Racanelli* discloses implementing its techniques with a computing system. (*Racanelli* at [0070]; White Decl. ¶ 270.) One technique includes receiving conditions associated with entities and assets. (White Decl. ¶ 271.)

Racanelli discloses receiving a condition associated with an entity. Per Claim 1, the “one or more entities” comprise “one or more resource recipients.” *Racanelli* identifies a spouse as an example resource recipient. (*Racanelli* at [0045]-[0046]; White Decl. ¶¶ 272-273.) *Racanelli* further describes receiving a spouse’s life expectancy (condition) and inputs affecting that life expectancy such as health problems (conditions). (*Racanelli* at [0051], [0068]; White Decl. ¶ 273.)

Racanelli also discloses receiving three conditions associated with an asset:

- (1) A “base case” valuation of the estate’s assets if the client were to die that day or in the current year;
- (2) A growth rate for the estate’s assets; and
- (3) “[T]iming or event inputs” reflecting the time over which the estate’s assets are expected to grow.

iii. 6[b]

Racanelli discloses this limitation. (White Decl. ¶¶ 277-282.) As discussed, *Racanelli* discloses implementing its techniques with a computing system. (*Racanelli* at [0070]; White Decl. ¶¶ 278-279.) One technique includes determining scenarios associated with conditions, including projecting an asset valuation and predicting an asset distribution to a recipient. (White Decl. ¶ 280.)

Starting with a scenario comprising a projected asset valuation, *Racanelli* describes projecting the future value of an estate's assets based on three conditions: a "base case" valuation, a growth rate for the estate's assets, and "timing or event inputs" reflecting the time over which the estate is expected to grow. (*Racanelli* at [0051], [0067]; White Decl. ¶ 281.) As for a scenario comprising a predicted asset distribution to a recipient, *Racanelli* generally describes "allow[ing] the client to view the allocation or distribution of their assets and liabilities in their estate plan at a given time and under a variety of simulated circumstances," which simulated circumstances can include the testator's spouse's life expectancy. (*Racanelli* at [0067]-[0068], [0084] (quoted material at [0084]); *see also* White Decl. ¶ 282.)

iv. 6[c]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 283-286.) As discussed, *Racanelli* with *Bateman* renders obvious

the claimed one or more indications—flowcharts visualizing the flow of assets to recipients—and *Racanelli* discloses scenarios associated with conditions.² (White Decl. ¶¶ 284-285.) *Racanelli* further discloses including “alternative timing or event input scenarios,” such as projected asset valuations and predicted asset distributions, in corresponding flowcharts. (*Racanelli* at [0069], [0084]; White Decl. ¶ 286.)

7. Claim 7

i. 7[p]

See Claim 6. (White Decl. ¶ 287.)

ii. 7[a]

Racanelli discloses this limitation. (White Decl. ¶¶ 288-294.) *Racanelli* describes receiving a condition reflecting a recipient spouse’s life expectancy. (*Racanelli* at [0045]-[0046], [0051], [0068]; White Decl. ¶¶ 291-292.) *Racanelli* also describes receiving a possible “base case” valuation for an estate’s assets if the client were to die today or this year. (*Racanelli* at [0067]; White Decl. ¶¶ 293-294.)

8. Claim 12

i. 12[p]

See Claim 1. (White Decl. ¶ 295.)

² Claim 6[c] recites “one or more scenarios associated with the one or more scenarios.” It appears that the second “scenarios” should instead be “conditions.”

ii. 12[a].

Racanelli and *Bateman* each disclose this limitation. (White Decl. ¶¶ 296-299.) *Racanelli* discloses wills and trusts. (*Racanelli* at [0048]; White Decl. ¶ 298.) *Bateman* discloses wills and deeds. (*Bateman* at [0051]-[0052]; White Decl. ¶ 299.)

9. Claim 13

i. 13[p]

See Claim 1. (White Decl. ¶ 300.)

ii. 13[a]

See Claim 1[c]. Although Claim 1[c] and Claim 13[a] are not identical, the disclosures that teach Claim 1[c] also teach Claim 13[a]. (White Decl. ¶¶ 301-302.)

iii. 13[b]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶ 303.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* and *Bateman* each disclose one or more assets. (*Id.* ¶ 304.)

Bateman discloses determining a jurisdiction (administrative division) in which a real-property asset such as a plot of land is located. (*Bateman* at [0052], [0055]; White Decl. ¶ 305.) For example, *Bateman* describes parsing a document's text to determine the county where the real property sits. (*Bateman* at [0055]; White Decl. ¶ 305.) The '917 Patent identifies a county as an example location comprising an administrative division. ('917 Patent at 13:53-58.) Thus, *Bateman* discloses

determining an asset's location, the location comprising an administrative division.

(White Decl. ¶ 306.) As discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *Bateman*'s techniques, including determining an asset's location as claimed. (*Id.* ¶ 307.)

iv. 13[c]

This limitation would have been obvious over *Racanelli* with *Bateman*. (White Decl. ¶¶ 308-313.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* renders obvious the computing system determining an asset's location that comprises an administrative division. (*Id.* ¶¶ 309-311.)

Bateman further discloses determining one or more rules associated with a jurisdiction (location comprising an administrative division) where real property sits. (*Bateman* at [0048]; White Decl. ¶ 312.) *Bateman* discloses selecting a jurisdiction-specific ontology whose rules identify real-property rights and govern which real-property rights are subsets of other rights in the jurisdiction. (*Bateman* at [0048]; White Decl. ¶ 312.) As discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *Bateman*'s techniques, including determining a rule at an asset's location. (White Decl. ¶ 313.)

10. Claim 14

i. 14[p]

See Claim 1. (White Decl. ¶ 314.)

ii. 14[a]

Racanelli discloses this limitation. (White Decl. ¶¶ 315-318.) Per Claim 1, the “one or more entities” comprise “one or more resource recipients.” *Racanelli*’s Figure 8 depicts **trustees** and **a creditor** as entities receiving resources. (*Id.*)

As discussed for Claim 1[d], *Racanelli*’s Figure 8 depicts **the distribution of NYC Home and Cash & Marketable Securities into Jane Smith’s Revocable Trust, then into (1) the Jane Smith 2001 Trusts for son Richard, daughter Janet, and daughter Julia; (2) the John and Jane Smith Foundation; and (3) a family trust.** (White Decl. ¶¶ 316-317.) At least five trusts receive resources: Jane Smith’s revocable trust; the three trusts for Richard, Jane, and Julia; and the family trust. Trusts must have a trustee, and those five trusts’ trustees are resource recipients because they hold the resources that those trusts receive. RESTATEMENT (THIRD) OF TRUSTS § 3 cmt. c (2015) (“The ‘trustee’ is the person who holds trust property.”).

As also discussed for Claim 1[d], *Racanelli*’s Figure 8 shows “**expenses and debts 885 to be paid out of the estate.**” (*Racanelli* at [0058]; White Decl. ¶ 318.) The entity holding the estate’s debt is a creditor, so paying that debt involves a creditor receiving resources from the estate. (White Decl. ¶ 318.)

iii. 14[b]

Racanelli and *Bateman* each disclose this limitation. (White Decl. ¶¶ 319-321.) *Racanelli* discloses all four asset types: “personal residence real estate;”

“tangible property (such as jewelry, art, collectables, cars, etc.);” “marketable securities;” and “cash.” (*Racanelli* at [0035]-[0036]; White Decl. ¶ 320.) *Bateman* discloses a plot of land, *i.e.* real property. (*Bateman* at [0074]; White Decl. ¶ 321.)

11. Claim 17

i. 17[p]

To the extent the preamble is limiting, *Racanelli* discloses it. *See* Claim 1[a]. (White Decl. ¶ 323.)

ii. 17[a]

Racanelli discloses a computing system with one or more processors. *See* Claim 1[a]. (White Decl. ¶ 324.)

iii. 17[b]

This limitation would have been obvious over *Racanelli* in view of *Bateman* and *Dintenfass*. (White Decl. ¶¶ 325-328.) *Racanelli*’s computing system includes a non-transitory computer-readable memory (such as RAM or ROM) storing instructions that a processor executes to implement *Racanelli*’s techniques. (*Racanelli* at Fig. 15, [0072]-[0074]; White Decl. ¶ 326.) As discussed in **Section XI.B.1.ii**, ordinarily skilled artisans would have configured *Racanelli*’s computing system to implement *Bateman*’s and *Dintenfass*’s techniques, which would have involved storing instructions for a processor to implement those techniques in the memory of *Racanelli*’s computing system. (White Decl. ¶ 327.) The combination

of *Racanelli*, *Bateman*, and *Dintenfass* therefore renders obvious one or more non-transitory computer-readable media storing instructions that, when executed by the one or more processors, cause the computing system to perform the operations in limitations 17[c] through 17[g], which correspond to Claim 1's limitations 1[a] through 1[e]. (White Decl. ¶¶ 327-328.)

iv. 17[c] – 17[g]

See Claim 1[a] – 1[e]. (White Decl. ¶¶ 329-333.)

12. Claim 19

i. 19[p]

See Claim 17[b]. Although Claim 17[b] and Claim 19[p] are not identical, the disclosures that teach Claim 17[b] also teach Claim 19[p]. (White Decl. ¶ 334.)

ii. 19[a] – 19[e]

See Claim 1[a] – 1[e]. (White Decl. ¶¶ 335-339.)

C. Ground 3: Claims 3 and 8-11 would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *McMillen*.

1. Combination of *Racanelli*, *Bateman*, *Dintenfass*, and *McMillen*

i. Analogous Art

As discussed in **Section XI.B.1.i**, *Racanelli*, *Bateman*, and *Dintenfass* belong to the '917 Patent's field of endeavor: resource allocation, which includes estate planning. (White Decl. ¶ 340.) *McMillen* also belongs to that field of endeavor. (*McMillen* at [0011], [0014]; White Decl. ¶ 341.)

ii. Rationale for Combination

Ordinarily skilled artisans would have combined *Racanelli*, *Bateman*, and *Dintenfass*, as discussed in **Section XI.B.1.ii**. As will be discussed next, they also would have added *McMillen*'s teachings to that combination. (White Decl. ¶ 342.)

Ordinarily skilled artisans would have added McMillen's machine-learning technique for projecting asset values to the combination of Racanelli, Bateman, and Dintenfass.

Racanelli describes projecting the future values of an estate's assets. (*Racanelli* at [0051], [0067]; White Decl. ¶ 343.) An example of an asset is a car. (*Racanelli* at [0036]; White Decl. ¶ 344.) A car is an example of an asset whose look or condition is a key component of its valuation; other examples include houses, collectibles, and other tangible personal property. (White Decl. ¶¶ 344-345.) For that reason, *McMillen* describes accounting for an asset's condition in determining the asset's current and future value. (*Id.*; *McMillen* at [0058]-[0061].)

In particular, *McMillen* describes a machine-learning model that determines an asset's baseline valuation and adjusts that baseline valuation using, for example, an image showing the asset's look or condition. (*McMillen* at [0013], [0015], [0058]-[0060]; White Decl. ¶¶ 345-347.) The model can use the adjusted baseline valuation to estimate the asset's future value using a depreciation or appreciation function. (*McMillen* at [0062]; White Decl. ¶ 345.) For example, a car may have a baseline valuation of \$5,000, adjusted to \$5,500 based on an image showing that the

car's interior and exterior are in excellent condition. (*McMillen* at [0062]; White Decl. ¶ 345.) Then, "the vehicle may be depreciated on a progressive scale of 20% after the first year, 15% per year for the next four years, and then 10% per year for the remaining years in service." (*McMillen* at [0062].)

To improve *Racanelli*'s techniques for projecting asset values, ordinarily skilled artisans would have turned to *McMillen*'s machine-learning technique for determining a baseline asset valuation; adjusting the baseline valuation based on an image of the asset's condition; and projecting the asset's future value by applying a depreciation or appreciation function to the adjusted baseline valuation. (White Decl. ¶ 347.) For an asset whose current condition affects its value trajectory—such as a car—accurately projecting the asset's future value would have required assessing the asset's current condition. (*Id.*) *McMillen*'s technique for assessing an asset's current condition to project its future value would have improved the accuracy of *Racanelli*'s long-term asset-value projections. (*Id.*) Thus, ordinarily skilled artisans would have added *McMillen*'s image-based machine-learning technique for projecting asset values based on an image showing an asset's current condition to *Bateman*'s machine-learning model. (*Id.*)

Ordinarily skilled artisans would have added McMillen’s techniques for detecting events that require changing a will and notifying a user about those events to the combination of Racanelli, Bateman, and Dintenfass.

McMillen explains that “[i]t is not uncommon to have to change or update a will” and that “[m]any life events may cause the need to change a will.” (*McMillen* at [0028]; *see also* White Decl. ¶¶ 348-349.) Likewise, *Dintenfass* explains that users may need to update their estate plans based on an event such as a beneficiary’s death. (*Dintenfass* at [0059], [0064]; White Decl. ¶ 350.) *McMillen* and *Dintenfass* therefore reflect that life events can require changing a will. (White Decl. ¶ 351.)

McMillen describes an online system that detects events and identifies “trigger events” that could require updating assets or beneficiaries associated with a will. (*McMillen* at [0028], [0038]-[0039]; White Decl. ¶ 348.) The system notifies a user of those trigger events so that the user can update the will accordingly. (*McMillen* at [0038], [0041], [0043], [0045], [0047]; White Decl. ¶ 348.) Ordinarily skilled artisans would have added *McMillen*’s event detection and notification features to *Racanelli*’s computing system to help a user keep a will up-to-date as life events that might require updating the will occur. (White Decl. ¶ 351.)

iii. Reasonable Expectation of Success

First, ordinarily skilled artisans would have had a reasonable expectation of successfully adding *McMillen*’s image-based machine-learning technique for projecting asset values to *Bateman*’s machine-learning language processing model.

(White Decl. ¶¶ 352-354.) Multimodal machine-learning models capable of processing both text and images had been achieved and were well-known to ordinarily skilled artisans before November 29, 2023. (*Id.* ¶¶ 354-355.) Ordinarily skilled artisans thus would have understood how to configure *Bateman*'s machine-learning language processing model as a multimodal model that could also perform *McMillen*'s image-based asset value projection technique. (*Id.* ¶ 355.)

Second, ordinarily skilled artisans would have had a reasonable expectation of successfully adding *McMillen*'s event detection and notification techniques to *Racanelli*'s computing system. (White Decl. ¶ 356.) That would have required only routine programming to add the existing event detection and notification features of *McMillen*'s online system to *Racanelli*'s computing system. (*Id.* ¶¶ 356-357.)

2. Claim 3

i. 3[p]

See Claim 2. (White Decl. ¶ 358.)

ii. 3[a]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 359-363.) *McMillen* discloses a machine-learning asset projection model that can project an asset's value by determining the asset's baseline value; adjusting the baseline value based on an image showing the asset's condition; and applying a depreciation or appreciation function to the adjusted baseline value.

(*McMillen* at [0015], [0058]-[0060], [0062]; White Decl. ¶¶ 361-362.) As discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have provided *Bateman*'s machine-learning model with *McMillen*'s machine-learning asset value projection technique to generate asset value projections for an estate's assets as described in *Racanelli*. (White Decl. ¶¶ 360, 363.) Thus combined, *Racanelli* with *Bateman* and *McMillen* yield a machine-learning asset projection model. (*Id.*)

iii. 3[b]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 364-372.) As discussed, *Racanelli* with *Bateman* renders obvious a projected asset valuation based on resource data, which resource data reflects who will receive which assets. (*Id.* ¶¶ 365-366.) As also discussed, *Racanelli* with *Bateman* and *McMillen* renders obvious a machine-learning asset projection model that can project an asset valuation. (*Id.* ¶ 367.) They also render obvious inputting both resource data and financial data into the machine-learning asset projection model to project an asset valuation. (*Id.* ¶¶ 368-372.)

Starting with resource data, projecting the values of an estate's assets requires identifying the estate's assets. (*Racanelli* at [0051], [0067]; White Decl. ¶ 369.) The resource data (structured conveyance records) generated by *Racanelli* with *Bateman* identifies the estate's assets. (White Decl. ¶ 369.) Thus, it would have been obvious

to input that resource data into the *Bateman-McMillen* machine-learning asset projection model to project the estate's assets' values. (*Id.*)

As for financial data, *McMillen* describes a machine-learning technique for projecting asset values that uses, for example, progressive asset depreciation rates of 20%, then 15%, then 10% per year. (*McMillen* at [0015], [0062]; White Decl. ¶ 370.) And having a machine-learning model project an asset value based on progressive asset depreciation rates would have involved inputting those rates into the machine-learning model. (White Decl. ¶ 371.)

Thus, *Racanelli* with *Bateman* and *McMillen* renders obvious inputting resource data and asset depreciation rates (financial data) into the *Bateman-McMillen* machine-learning asset projection model to generate an asset value projection based on that resource data and those rates. (White Decl. ¶ 372.)

iv. 3[c]

McMillen discloses this limitation. (White Decl. ¶¶ 373-375.) As discussed for limitation 3[b], *McMillen* describes an example of progressive asset depreciation rates for projecting a car's value. (*Id.* ¶¶ 374-375; *McMillen* at [0062].)

3. Claim 8

i. 8[p]

See Claim 6. (White Decl. ¶ 376.)

ii. 8[a]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 377-382.) An asset value projection is an example of a scenario. ('917 Patent at Claim 6.) *McMillen* discloses a machine-learning model that can project an asset's value by determining the asset's baseline value; adjusting the baseline value based on an image showing the asset's condition; and applying a depreciation or appreciation function to the adjusted baseline value. (*McMillen* at [0015], [0058]-[0060], [0062]; White Decl. ¶¶ 380-381.) As discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have provided *Bateman*'s machine-learning model with *McMillen*'s machine-learning asset value projection technique to generate asset value projections for an estate's assets as described in *Racanelli*, which yields a machine-learning scenario model. (White Decl. ¶ 382.)

iii. 8[b]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 383-391.) As discussed, *Racanelli* with *Bateman* renders obvious resource data that reflects who will receive which assets. (*Id.* ¶ 384.) As also discussed, *Racanelli* with *Bateman* and *McMillen* renders obvious a machine-learning scenario model that can determine a scenario by projecting an asset valuation. (*Id.* ¶¶ 385-386.) Those references further render obvious inputting

resource data and a condition into the machine-learning scenario model to determine a scenario that includes a projected asset valuation. (*Id.* ¶ 387.)

Starting with resource data, projecting the values of an estate's assets requires identifying the estate's assets. (*Racanelli* at [0051], [0067]; White Decl. ¶ 388.) The resource data (structured conveyance records) generated by *Racanelli* with *Bateman* identifies the estate's assets. (White Decl. ¶ 388.) It therefore would have been obvious to input that resource data into the *Bateman-McMillen* machine-learning scenario model to project the estate's assets' values. (*Id.*)

Turning to conditions, as discussed for Claim 6[b], *Racanelli* with *Bateman* renders obvious projecting an asset valuation (scenario) based on conditions including a base-case asset valuation and growth rate. (White Decl. ¶ 389.) *McMillen*'s machine-learning technique for projecting asset values uses similar inputs: a baseline value adjusted by *McMillen*'s machine-learning technique to account for the asset's current condition; and depreciation rates (negative growth rates). (*McMillen* at [0015], [0058]-[0060], [0062]; White Decl. ¶ 389.) Ordinarily skilled artisans would have been motivated to input *Racanelli*'s base-case valuation and growth rate into the *Bateman-McMillen* machine-learning model because it would have yielded more accurate projected valuations by accounting for the assets' current conditions. (White Decl. ¶ 390.)

Thus, *Racanelli* with *Bateman* and *McMillen* renders obvious inputting resource data, a base-case valuation (condition), and a growth rate (another condition) into a machine-learning scenario model to generate an asset value projection (scenario) based on resource data and conditions. (White Decl. ¶ 391.)

4. Claim 9

i. 9[p]

See Claim 1. (White Decl. ¶ 392.)

ii. 9[a]

This limitation would have been obvious over *Racanelli* with *McMillen*. (White Decl. ¶¶ 393-400.) As discussed, *Racanelli* discloses a computing system. (*Id.* ¶ 394.) *McMillen* discloses an online system that receives event data comprising information associated with events, including “a marital status change” such as a wedding; “a birth or death of a named or potential beneficiary;” or “the acquisition or disposal of property.” (*McMillen* at [0028], [0038], [0039], [0051], [0055] (quoted material at [0028]); White Decl. ¶¶ 395-399.) Those events are associated with resources in that they relate to a resource (*e.g.*, acquired property) or a resource recipient (*e.g.*, a beneficiary’s death). (White Decl. ¶ 399.) And as discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s computing system to implement *McMillen*’s techniques for detecting events. (*Id.* ¶ 400.)

iii. 9[b]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 401-407.) As discussed, *Racanelli* discloses a computing system; *Racanelli* with *Bateman* renders obvious resource data; and *Racanelli* with *Bateman* and *McMillen* renders obvious the computing system receiving the claimed event data. (*Id.* ¶¶ 402-404.)

McMillen describes analyzing detected events to identify “trigger events” that could require changing the assets or beneficiaries for a will. (*McMillen* at [0038]-[0039], [0050]-[0052]; White Decl. ¶ 405.) *McMillen* therefore determines whether an event is a “trigger event” that satisfies the criterion of potentially requiring a change to assets or beneficiaries. (*McMillen* at [0039], [0052]; White Decl. ¶ 405.)

Determining whether an event could require changing assets or beneficiaries would have required information about the current assets and beneficiaries. (White Decl. ¶ 406.) As discussed for Claim 1[c], the “resource data” that *Bateman* generates with *Racanelli* provides that information: it reflects which recipients (beneficiaries) are to receive which assets. (*Id.*) It therefore would have been obvious to use that resource data to determine whether an event satisfies the criterion of potentially requiring a change in assets or beneficiaries. (*Id.*) And as discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s

computing system to implement *McMillen*'s techniques for detecting events and identifying trigger events, thereby rendering limitation 9[b] obvious. (*Id.* ¶ 407.)

iv. 9[c]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 408-412.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* and *McMillen* renders obvious one or more events that satisfy a criterion. (*Id.* ¶¶ 409-410.) *McMillen* further discloses generating a notification about an event that could require changing assets or beneficiaries for a will. (*McMillen* at Fig. 5, [0038], [0041], [0043], [0045], [0047]; White Decl. ¶ 411.) Finally, as discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *McMillen*'s techniques for notifying a user of a trigger event. (*Id.* ¶ 412.)

v. 9[d]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 413-417.) As discussed, *Racanelli* with *Bateman* renders obvious the claimed one or more indications: flowcharts visualizing the flow of assets to recipients. (*Id.* ¶ 414.) As also discussed, *Racanelli* with *Bateman* and *McMillen* render obvious an event notification. (*Id.* ¶ 415.) *McMillen* further describes that the event notification could be a user interface pop-up about an event that could require changing assets or beneficiaries. (*McMillen* at Fig. 5, [0041],

[0043], [0045], [0047]; White Decl. ¶ 416.) Ordinarily skilled artisans would have provided *McMillen*'s user interface pop-up with those flowcharts to permit the user to see both the current assets and beneficiaries and the notification about the asset or beneficiary that may need to be updated, an arrangement *McMillen* suggests by concurrently depicting (1) current assets and beneficiaries; and (2) notifications about potential changes thereto. (*McMillen* at Fig. 5; White Decl. ¶¶ 416-417.)

5. Claim 10

i. 10[p]

See Claim 9. (White Decl. ¶ 418.)

ii. 10[a]

This limitation would have been obvious over *Racanelli* with *Bateman* and *McMillen*. (White Decl. ¶¶ 419-425.) As discussed, *Racanelli* discloses a computing system, and *Racanelli* with *Bateman* and *McMillen* renders obvious an event notification. (*Id.* ¶¶ 420-421.)

McMillen's online system can send event notifications to a user device by text message, email, or user interface pop-ups. (*McMillen* at [0038], [0041], [0043], [0045], [0047], [0081], [0088]-[0090]; White Decl. ¶¶ 422-424.) The user device (*e.g.*, smartphone or mobile device) can be connected to the online system via a wide-area network, cellular network, or the Internet. (*McMillen* at [0018], [0020];

White Decl. ¶ 423.) That user device is a remote computing device because it is a computing device not on the same local network as the online system. (*Id.*)

McMillen's user device is associated with a user. (*McMillen* at [0018]; White Decl. ¶ 424.) Two aspects of *McMillen* disclose or render obvious that the user is an entity authorized to receive event notifications. *First*, "[t]he user 102 may be the testator or another person who is authorized to make changes to the will." (*McMillen* at [0027]; *see also* White Decl. ¶ 424.) *Second*, the user can log into the online system to access the user's account via the user device. (*McMillen* at [0019], [0027]; White Decl. ¶ 424.) Ordinarily skilled artisans would have recognized that a user logged in to *McMillen*'s online system is authorized to receive event notifications because (1) the user is authorized to update the testator's will, and updating a will is why *McMillen* provides those notifications; and (2) the user has been authenticated by logging into the system that provides those notifications. (White Decl. ¶ 424.)

Finally, as discussed in **Section XI.C.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *McMillen*'s techniques for notifying a user of a trigger event. (White Decl. ¶ 425.)

6. Claim 11

i. 11[p]

See Claim 9. (White Decl. ¶ 426.)

ii. 11[a]

This limitation would have been obvious over *Racanelli* with *McMillen*. (White Decl. ¶ 427-431.) As discussed for limitation 9[a], *Racanelli* with *McMillen* renders obvious a computing system receiving event data comprising a plurality of events. (*Id.* ¶ 428.) *McMillen* discloses detecting events such as a marital status change (marriage or divorce); the acquisition or purchase of property (receipt of a new asset); a potential beneficiary's birth (birth of a child); and a named beneficiary's death (death of an entity comprising a resource recipient). (*McMillen* at [0028], [0039], [0055]; White Decl. ¶¶ 429-431.)

D. Ground 4: Claims 15, 16, 18, and 20 would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*.

1. Combination of *Racanelli*, *Bateman*, *Dintenfass*, and *Kwak*

i. Analogous Art

As discussed in **Section XI.B.1.i**, *Racanelli*, *Bateman*, and *Dintenfass* belong to the '917 Patent's field of endeavor: resource allocation, which includes estate planning. (White Decl. ¶ 432.) *Kwak* also belongs to the field of resource allocation. (*Kwak* at 1; White Decl. ¶ 433.)

ii. Rationale for Combination

Ordinarily skilled artisans would have combined *Racanelli*, *Bateman*, and *Dintenfass*, as discussed in **Section XI.B.1.ii**. As will be discussed next, they also would have added *Kwak*'s teachings to that combination. (White Decl. ¶ 434.)

Ordinarily skilled artisans would have provided Bateman’s machine-learning model with Dintenfass’s and Kwak’s techniques for assessing whether a will’s provisions are legally valid.

Dintenfass and *Kwak* teach that a will’s provisions may be legally invalid. *Dintenfass* teaches that state law may prohibit certain asset allocations in a will. (*Dintenfass* at [0057], [0059]; White Decl. ¶ 435.). *Kwak* teaches that a will’s provision may be legally invalid under certain conditions. (*Kwak* at 1-2; White Decl. ¶ 435.) A legally invalid will can hinder the probate process: “Processing a will via probate is a costly, time-consuming process that can be exacerbated by errors or by challenges to validity.” (*Kwak* at 1; *see also* White Decl. ¶ 436.)

Dintenfass and *Kwak* also teach assessing whether a will’s provisions are legally valid. *Dintenfass* describes retrieving current state laws, checking a will’s asset allocations against those laws, and notifying a user of any discrepancy between the asset allocations and those laws. (*Dintenfass* at [0057], [0059]; White Decl. ¶ 438.) *Kwak* describes natural-language inference (NLI) machine-learning models that assess whether will provisions are legally valid based on input laws and factual conditions. (*Kwak* at 1, 4; White Decl. ¶ 438.)

Ordinarily skilled artisans would have added *Dintenfass*’s and *Kwak*’s techniques for assessing whether will provisions (such as an asset allocation) are valid based on data reflecting state law to *Bateman*’s machine-learning model. (White Decl. ¶ 439.) That way, the model could assess whether the conveyances it

extracts are legally valid. (*Id.*; *Bateman* at [0051]-[0052], [0063], [0072], [0074], [0108].) *Dintenfass* and *Kwak* suggest that combination because they describe the benefits of assessing whether will provisions are legally valid, including (1) ensuring that the will is effective and accurate; and (2) conserving legal resources. (*Dintenfass* at [0057]; *Kwak* at 1; White Decl. ¶¶ 437, 439.)

Ordinarily skilled artisans would have used Dintenfass’s techniques for detecting changes in law, retrieving current state law, and notifying a user of a change in law in the combination of Racanelli, Bateman, Dintenfass, and Kwak.

A change in law can require updating a will. *Dintenfass* explains that a change in law could require a user to update an estate portal application for generating a will. (*Dintenfass* at [0064]; White Decl. ¶ 440.) *McMillen* explains that “moving to a new location with different intestate laws” and “a change in tax laws” can require changing a will. (*McMillen* at [0028]; White Decl. ¶ 440.) Thus, ordinarily skilled artisans would have sought techniques to help a user keep a will up-to-date as changes in law occur. (White Decl. ¶ 440.)

Dintenfass meets that need. *Dintenfass* describes receiving information about a change in law and notifying a user that the user may need to update an estate portal application for generating a will. (*Dintenfass* at [0064]; White Decl. ¶¶ 441, 443.) *Dintenfass* also describes retrieving current state law to assess whether a will’s asset allocations are valid and alerting a user to any discrepancies between the law and asset allocation. (*Dintenfass* at [0059]; White Decl. ¶ 442.) To help a user keep a

will up-to-date as laws change, ordinarily skilled artisans would have provided *Racanelli*'s computing system with *Dintenfass*'s techniques for identifying a change in law, determining whether that change in law requires updating a will, and notifying a user to update a will based on that change in law. (White Decl. ¶ 444.)

iii. Reasonable Expectation of Success

Ordinarily skilled artisans would have had a reasonable expectation of successfully configuring *Bateman*'s machine-learning model to implement the techniques for assessing a will's validity described in *Dintenfass* and *Kwak*. *Kwak* used off-the-shelf machine learning models and describes how to train those machine-learning models to assess whether a will's provisions are legally valid. (*Kwak* at 3-5; White Decl. ¶¶ 446-447, 450.) *Kwak* reports that its models demonstrated "good performances" and "reasonable performance in assessing the validity of will statements." (*Kwak* at 5, 9; White Decl. ¶ 448.)

Ordinarily skilled artisans also would have had a reasonable expectation of adding *Dintenfass*'s techniques for receiving information about a change in law, retrieving current law, and notifying a user about the change in law to *Racanelli*'s computing system. (White Decl. ¶¶ 446, 449-450.) Adding *Dintenfass*'s existing functionality to *Racanelli*'s computing system would have required only routine programming that ordinarily skilled artisans could implement. (*Id.* ¶ 449.)

2. Claim 15

i. 15[p]

See Claim 1. (White Decl. ¶ 451.)

ii. 15[a]

This limitation would have been obvious over *Bateman* with *Dintenfass* and *Kwak*. (White Decl. ¶¶ 452-457.) As discussed, *Bateman* describes rule data comprising one or more rules. (*Id.* ¶ 453.) *Dintenfass* and *Kwak* each disclose a rule based on a regulation associated with the resources. (*Id.* ¶ 454.) *Dintenfass* teaches state laws that govern how a will can allocate resources, such as a law prohibiting a will from omitting a surviving spouse. (*Dintenfass* at [0057], [0059]; White Decl. ¶ 455.) *Kwak* describes state laws associated with will provisions, which laws are associated with resources because they govern how wills allocate resources. (*Kwak* at 2-3; White Decl. ¶ 456.) As discussed in **Section XI.D.1.ii**, ordinarily skilled artisans would have included state laws as taught by *Dintenfass* and *Kwak* in the one or more rules so that *Bateman*'s language processing model as configured with *Dintenfass*'s and *Kwak*'s techniques could assess whether the conveyances it identifies are legally valid based on data reflecting state law. (White Decl. ¶ 457.)

iii. 15[b] / 18[b] / 20[b]³

This limitation would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*. (White Decl. ¶¶ 458-463.) As discussed, *Racanelli* discloses a computing system, and *Bateman* with *Dintenfass* and *Kwak* renders obvious the claimed one or more regulations. (*Id.* ¶¶ 459-460.)

Dintenfass discloses receiving data associated with a modification of law: “In some embodiments, the system may be configured to transmit a notification to the user indicating that the user may have to update the estate portal application based on new information,” such as a “change in state or regulatory laws since the generation of the previous will.” (*Dintenfass* at [0064]; White Decl. ¶ 461.) That the system transmits a notification prompted by “new information” about a change in law reflects that the system received information associated with the change in law. (White Decl. ¶ 461.) *Dintenfass* also discloses (1) changes in law that can require updating a will; and (2) its system retrieving current state law. (*Dintenfass* at [0059], [0064]; White Decl. ¶ 462.) Retrieving current state law after a change in

³ Claim 15’s method limitations also appear as materially identical “operation” limitations in Claims 18 and 20, so Wealth.com addresses them together here. Limitations 15[b] – 15[e] correspond to limitations 18[b] – 18[e] and 20[b] – 20[e].

law—*i.e.*, retrieving the changed state law—is another example of receiving data associated with a modification of state law. (White Decl. ¶ 462.)

Finally, as discussed in **Section XI.D.1.ii**, ordinarily skilled artisans would have used *Racanelli*'s computing system to implement *Dintenfass*'s techniques of receiving information about a change in law and retrieving current state laws after a change in law, which both involve receiving data associated with a modification of law. (White Decl. ¶ 463.)

iv. 15[c] / 18[c] / 20[c]

This limitation would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*. (White Decl. ¶¶ 464-470.) As discussed, *Racanelli* discloses a computing system; *Bateman* discloses rule data comprising one or more rules; *Bateman* with *Dintenfass* and *Kwak* renders obvious the claimed one or more regulations; and *Dintenfass* discloses receiving data associated with a modification of a regulation—a change in state law. (*Id.* ¶¶ 465-468.)

Dintenfass discloses or renders obvious modifying rule data based on the data associated with the modification of the regulation. *Dintenfass* discloses (1) changes in law that can require updating a will; and (2) its system retrieving current state law. (*Dintenfass* at [0059], [0064]; White Decl. ¶ 469.) *Dintenfass*'s system retrieves current state law to identify discrepancies between the current state law and a will's asset allocations. (*Dintenfass* at [0059]; White Decl. ¶ 469.) Retrieving the current

state law after a change in law modifies the existing rule data—*i.e.*, the state law before the change in the law—based on data associated with a modification of a regulation—*i.e.*, the updated current law. (White Decl. ¶ 469.) Alternatively, it would have been obvious to modify the existing rule data (state law before the change in law) to reflect the retrieved current state law so that the law used to check whether the will’s asset allocations are valid is up-to-date. (*Id.*) Finally, as discussed in **Section XI.D.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s computing system to implement those techniques. (*Id.* ¶ 470.)

v. 15[d] / 18[d] / 20[d]

This limitation would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*. (White Decl. ¶¶ 471-476.) As discussed, *Racanelli* discloses a computing system; *Bateman* with *Dintenfass* and *Kwak* renders obvious the claimed one or more regulations; and *Dintenfass* discloses receiving data associated with a modification of a regulation—a change in state law. (*Id.* ¶¶ 472-474.)

Dintenfass discloses generating and transmitting a rule modification notification associated with a change in law: its system “may be configured to transmit a notification to the user indicating that the user may have to update the estate portal application based on new information,” such as a “change in state or regulatory laws since the generation of the previous will.” (*Dintenfass* at [0064]; White Decl. ¶ 475.) As discussed in **Section XI.D.1.ii**, ordinarily skilled artisans

would have used *Racanelli*'s computing system to implement *Dintenfass*'s technique for notifying a user about a change in law. (White Decl. ¶ 476.)

vi. 15[e] / 18[e] / 20[e]

This limitation would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*. (White Decl. ¶¶ 477-479.) As discussed, *Racanelli* with *Bateman* renders obvious the claimed one or more indications: flowcharts visualizing the flow of assets to recipients. (*Id.* ¶ 478.) As also discussed, *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak* renders obvious a rule modification notification about a change in law. (*Id.* ¶ 479.) Ordinarily skilled artisans would have included that notification about the change in law with those flowcharts so that the user would know that the change in law requires updating the existing asset allocation shown in those flowcharts. (*Id.*) That would have ensured that the user would know to correct the underlying will to conform to the changed law. (*Id.*)

3. Claim 16

i. 16[p]

See Claim 15. (White Decl. ¶ 480.)

ii. 16[a]

This limitation would have been obvious over *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak*. (White Decl. ¶¶ 481-492.) As discussed, *Racanelli* discloses

a computing system, and *Racanelli* with *Bateman*, *Dintenfass*, and *Kwak* renders obvious a rule modification notification. (*Id.* ¶¶ 482-483.)

Dintenfass discloses a system that sends a user a rule modification notification based on a change in law. (*Dintenfass* at [0064]; White Decl. ¶ 484.) *Dintenfass* further discloses a user receiving information from the system at a user input device, such as a PC or mobile phone. (*Dintenfass* at [0031]; White Decl. ¶¶ 485-486.) The user input device can connect to the system via a wide area network or the Internet. (*Dintenfass* at [0030]; White Decl. ¶ 487.) That user input device is a remote computing device because it is a computing device not on the same local network as the system sending the notification. (White Decl. ¶ 488.) Thus, ordinarily skilled artisans would have recognized that *Dintenfass*'s system sends a rule modification notification to a user input device (remote computing device). (*Id.* ¶¶ 484-488.)

Dintenfass discloses or at least renders obvious that the user input device that receives the rule modification notification is associated with a user (entity) authorized to receive that notification. (*Dintenfass* at [0029]; White Decl. ¶ 489.) That *Dintenfass* describes sending a rule notification modification to a user's user input device shows that the device's user is authorized to receive the notification. (White Decl. ¶ 489.) If more is required, *Dintenfass* also describes requiring a user to authenticate before generating a draft will. (*Dintenfass* at [0064]; White Decl. ¶ 490.) Because *Dintenfass* sends rule modification notifications to prompt a user to

update a will, it would have been logical and obvious to require the device’s user to authenticate to receive that notification, making the user authorized to receive that notification. (White Decl. ¶¶ 490-491.) That way, only a user authorized to change a will (as reflected by the authentication) would have known to update the will based on the change in law. (*Id.* ¶ 491.)

Finally, as discussed in **Section XI.D.1.ii**, ordinarily skilled artisans would have used *Racanelli*’s computing system to implement *Dintenfass*’s technique of sending a rule modification notification. (White Decl. ¶ 492.)

4. Claim 18

i. 18[p]

See Claim 17. (White Decl. ¶ 493.)

ii. 18[a]

See Claim 15[a] (“wherein the one or more rules are based on one or more regulations associated with the resources”) and Claim 17[b] (“wherein the operations further comprise”). (White Decl. ¶¶ 494-497.)

iii. 18[b] – 18[e]

See Claim 15[b] – 15[e]. (White Decl. ¶¶ 498-501.)

5. Claim 20

i. 20[p]

See Claim 19. (White Decl. ¶ 502.)

ii. 20[a]

See Claim 18[a]. (White Decl. ¶ 503.)

iii. 20[b] – 20[e]

See Claim 15[b] – 15[e]. (White Decl. ¶¶ 504-507.)

* * *

For obviousness Grounds 2-4, no alleged secondary considerations are currently of record. (White Decl. ¶ 514.) Wealth.com reserves the right to reply to any alleged secondary considerations later presented.

E. Ground 5: Claims 4 and 5 are indefinite.

Claim 4 recites “one or more relationships between the one or more entities.” Claim 5 depends from Claim 4 and includes that limitation.

The underlined “or” reflects two alternatives for that limitation:

- (1) one or more relationships “between” one entity; and
- (2) one or more relationships between multiple (more than one) entities.

Alternative (1) is logically impossible. Dictionaries show that the word “between” involves at least two related items. (White Decl. ¶¶ 510-511; Ex. 1024, at 1-2; Ex. 1025, at 1-7.) A relationship “between” only one entity is nonsensical and impossible. (White Decl. ¶ 512.) But Claims 4 and 5 include that nonsensical, impossible subject matter, making them indefinite. *See Synchronoss Techs., Inc. v. Dropbox, Inc.*, 987 F.3d 1358, 1366-67 (Fed. Cir. 2021) (holding claims to

“generating a [single] digital media file” that itself “compris[es] a directory of digital media files” indefinite as nonsensical and impossible).

Alternative (2) would have been obvious, as discussed for Claim 4 in **Section XI.B.4**. The petition’s indefiniteness and obviousness grounds are consistent because each ground addresses a different alternative. *Intel Corp. v. Qualcomm Inc.*, 21 F.4th 801, 813 (Fed. Cir. 2021).

F. Ground 6: Claim 13 is an improper dependent claim.

Claim 13 depends from Claim 1. But Claim 13[a], while referring to Claim 1[c], omits the features of Claim 1[c] underlined below:

1[c]	13[a]
“generating, by the computing system, based on <u>inputting</u> the one or more responses and rule data comprising one or more rules associated with the resources <u>into the one or more machine-learning models</u> , resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, <u>wherein the one or more machine-learning models are trained based on training data comprising training resource data and training rule data, and</u> wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses”	“wherein <i>the</i> generating, by the computing system, based on one or more responses and rule data comprising one or more rules associated with the resources, resource data comprising one or more resource data fields and one or more resource data field values that correspond to the one or more resource data fields, wherein the one or more resource data fields are based on the one or more resource document fields, and wherein the one or more resource data field values are based on the one or more responses comprises”

Because Claim 13[a] purports to remove the underlined features from Claim 1[c], Claim 13 does not include all of Claim 1's limitations as the statute requires. 35 U.S.C. § 112(d). While that discrepancy may reflect the applicant's failure to propagate Claim 1's amendments to Claim 13 (Ex. 1003, at 134, 137), Claim 13 still issued with that discrepancy, making Claim 13 an improper dependent claim. *See Multilayer Stretch Cling Film Hldgs., Inc. v. Berry Plastics Corp.*, 831 F.3d 1350, 1362 (Fed. Cir. 2016) ("A dependent claim that contradicts, rather than narrows, the claim from which it depends is invalid."); *Pfizer Inc. v. Ranbaxy Labs.*, 457 F.3d 1284, 1291-92 (Fed. Cir. 2006) (holding invalid an improper dependent claim that may have resulted from a drafting problem).

XII. Conclusion

The challenged claims are unpatentable.

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CERTIFICATION UNDER 37 C.F.R. § 42.24(d)

The undersigned certifies that this paper, excluding exempt portions, has:

- 18,333 words as counted by Microsoft Word 365, the word-processing system used to prepare this paper; and
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Petition for Post-Grant Review
U.S. Patent No. 12,353,917

CERTIFICATE OF SERVICE

Under 37 C.F.R. § 42.6(e), the undersigned certifies that on April 7, 2026, complete copies of the foregoing and all accompanying papers and exhibits were served via UPS Next Day Air, which is at least as fast and reliable as U.S. Priority Mail Express, on the correspondence address for the '917 Patent in Patent Center:

130085 - Lee Sullivan Shea & Smith LLP
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In addition to the physical service described above, a courtesy copy of the same documents was transmitted electronically on the same date to the following email address associated with the Patent Owner:

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Dated: April 7, 2026

Respectfully submitted,

/SRS/

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