

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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SALESFORCE.COM, INC.,  
Petitioner,

v.

VIRTUALAGILITY, INC.,  
Patent Owner

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Case CBM2013–00024  
Patent 8,095,413 B1

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Before JAMESON LEE, GEORGIANNA W. BRADEN, and  
CHRISTOPHER M. KAISER, *Administrative Patent Judges.*

BRADEN, *Administrative Patent Judge.*

FINAL WRITTEN DECISION  
*35 U.S.C. § 328(a) and 37 C.F.R. § 42.73*

## I. INTRODUCTION

### A. *Background*

Salesforce.com, Inc. (“Petitioner”) filed a Petition (Paper 4, “Pet.”) requesting covered business method patent review of claims 1–21 of U.S. Patent No. 8,095,413 B1 (Ex. 1001, “the ’413 patent”) pursuant to § 18(a) of the Leahy-Smith America Invents Act (“AIA”).<sup>1</sup> VirtualAgility, Inc. (“Patent Owner”) filed a Preliminary Response (Paper 13, “Prelim. Resp.”). Pursuant to 35 U.S.C. § 324, we instituted this proceeding as to claims 1–21 on fewer than all of the grounds of unpatentability alleged in the Petition. (Paper 16, “Dec. to Inst.”).

After institution of this proceeding, Patent Owner filed a Response (Paper 25, “Resp.”) to the Petition and a contingent motion to amend the claims (Paper 26, “Mot. to Amend”). Petitioner filed a Reply (Paper 29) to Patent Owner’s Response and an opposition to the contingent motion to amend the claims (Paper 30, “Opp.”). Patent Owner filed a Reply in support of its motion to amend the claims. Paper 32 (“PO Reply”).

Counsel for both Petitioner and Patent Owner were present and presented argument at an oral hearing held on July 14, 2014.<sup>2</sup>

The Board has jurisdiction under 35 U.S.C. § 6(c). In this final written decision, issued pursuant to 35 U.S.C. § 328(a) and 37 C.F.R. § 42.73, we hold that challenged claims 1–21 of the ’413 patent are unpatentable under 35 U.S.C §§ 101 and 102. We also deny Patent Owner’s contingent motion to amend the claims.

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<sup>1</sup> Pub. L. No. 112–29, 125 Stat. 284, 329 (2011).

<sup>2</sup> A transcript (“Tr.”) of the oral hearing is included in the record. Paper 46.

*B. The '413 Patent*

The '413 patent is directed generally to a method and apparatus for managing collaborative activity (e.g., strategic planning and project management). Ex. 1001, col. 1, ll. 32–33, col. 5, ll. 25–31. As clarified in the prosecution history, the '413 patent aids in the management of collaborative activity by using a computer database created with data, where the data represents models of the collaborative activity. Ex. 1004, 116. The models, which include model entities, are then arranged into hierarchies, and the data regarding collaborative activity can be shared between different people. Ex. 1001, col. 1, ll. 27–31; col. 5, ll. 25–33.

For one embodiment, the specification describes a method of acquiring a first set of data that can represent a first model entity. Ex. 1001, col. 2, ll. 50–54. The first model entity can represent an organization of people (*id.* at col. 2, ll. 39–40), customer relationships (*id.* at col. 2, ll. 51–52), a program management office (*id.* at col. 3, ll. 38–39), or a scalable process (*id.* at col. 4, ll. 29–30). The first set of data can include data related to customer information (*id.* at col. 2, ll. 62–67), company capability information (*id.* at col. 3, ll. 16–26), or economic information (*id.* at col. 3, ll. 25–34; col. 3, l. 65–col. 4, l. 4; col. 4, ll. 15–20). The data can also be a list of goals for an organization or for a project. *Id.* at col. 5, ll. 42–44.

The claimed method associates the first set of data (i.e., first model entity) with a second set of data, so that the two model entities are considered related. Ex. 1001, col. 2, ll. 43–44. The second set of data represents a second model entity. *Id.* The second model entity can represent a portfolio of management concepts. *Id.*

The model entities are organized into a plurality of hierarchies, and a model can belong to more than one hierarchy. Ex. 1001, col. 9, ll. 33-37; col. 11, ll. 12-14; claims 1, 8. For example, once data regarding project goals or cost have been loaded into a model entity, the information can be presented as a goal and/or cost hierarchy. According to the '413 patent, the plurality of hierarchies can be managed by a manager hierarchy (i.e., a manager module). *Id.* at col. 5, l. 44-col. 6, l. 58. The manager hierarchy can be used to oversee a project, organize project goals, and allocate resources for a project. *Id.* at col. 5, l. 49-col. 6, l. 32. The manager hierarchy presents a constant view of a hierarchy of goals and contributing goals, and updates the goals based on changing circumstances. Figure 3 of the '413 patent is reproduced below:

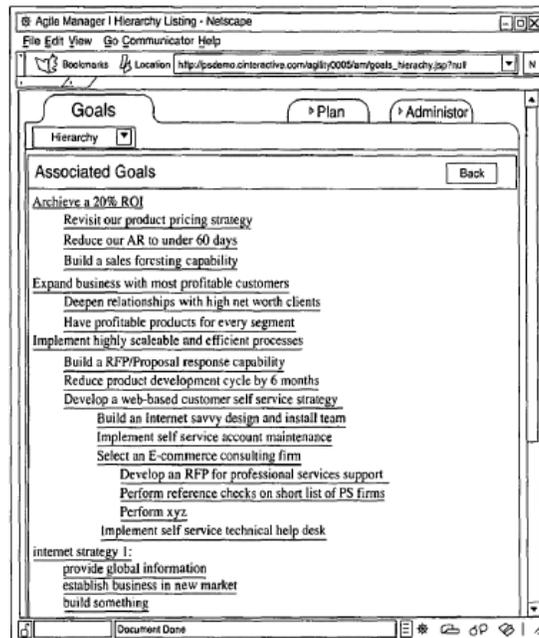


Fig. 3

As shown in Figure 3, the goal hierarchy can list (i) an organization's total goals and any contributing goals affecting the enterprise, or (ii) an organization's priorities, such as top goals (*see* Fig. 14) or a specific goal

(*see* Fig. 15). Ex. 1001, col. 11, ll. 12–18. According to the ’413 patent, if an organization is addressing budget issues, then a user can use the claimed method to sort by goal or project cost (*see* Fig. 19), or by priority or return on investment (“payback”) (*see* Fig. 20). *Id.* at col. 11, ll. 27–31. The sorted information can be provided to help the user decide where to commit resources based on factors such as benefit and risk. *Id.*

The ’413 patent also discloses facilitating strategic planning by using a company comparison module and a baseline module that facilitates users setting new goals, displaying already existing goals, and/or identifying and developing potential new goals. *Id.* at col. 10, ll. 11–44.

### *C. Illustrative Claims*

Claims 1, 7, 8, and 20 are independent claims. Claims 1 and 8, reproduced below, are illustrative of the challenged claims:

1. A system for supporting management of a collaborative activity by persons involved therein, the persons not being specialists in information technology, the system being implemented using a processor and a storage device accessible to the processor, and the system comprising:
  - a representation of a model of the collaborative activity in the storage device, the model of the collaborative activity including model entities, the model entities providing access to information concerning the collaborative activity, being organized into a plurality of hierarchies having a plurality of types, and a given model entity being capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types; and
  - said processor being configured to provide a graphical user interface to a person of the persons for providing outputs to the person and responding to inputs from the person by performing operations on a model entity as limited by a type of access which the person has to the model entity, the operations including controlling access to the model entity,

creating, modifying, and/or deleting the model entity, assigning the model entity to a location in a hierarchy, accessing and/or modifying the information concerning the collaborative activity via the model entity, viewing model entities as ordered by a hierarchy to which the entities belong, and viewing model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access.

8. A method of supporting management of a collaborative activity by persons involved therein, the persons not being specialists in information technology and the method being performed in a system which includes a processor and a storage device accessible to the processor, the storage device containing a model of the collaborative activity, the model including representations of model entities, a given representation of a model entity being capable of simultaneously belonging to hierarchies including a hierarchy and another hierarchy, and the representations of model entities providing access to information relating to the collaborative activity, the processor providing an interface for a person of the persons, and the method comprising the steps performed in the system of:
  - receiving a definition of a model entity belonging to the model of the collaborative activity from a person of the persons via the interface and responding thereto by producing a representation of the model entity in the storage device; and
  - receiving a first indication of a first hierarchical relationship between the model entity and another model entity belonging to the hierarchy from the person via the interface and responding thereto by relating the model entity to the other model entity in the hierarchy and
  - receiving a second indication of a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy from the person via the interface and responding thereto by relating the model entity to the third model entity in the other hierarchy.

*D. Prior Art Reference Alleged to Support Unpatentability*

The following prior art reference is asserted in the instituted ground:

<b>Name</b>	<b>Description</b>	<b>Date</b>	<b>Exhibit</b>
Ito	US 5,761,674	June 2, 1998	Ex. 1007

*E. Alleged Grounds of Unpatentability Instituted in Trial*

The following table summarizes the challenges to patentability that were instituted for covered business method patent review:

<b>Reference(s)</b>	<b>Basis</b>	<b>Claims Challenged</b>
	§ 101	1-21
Ito	§ 102(a)	1-21

*F. Covered Business Method Patent*

We determined, in the Decision on Institution, that the '413 patent is a covered business method patent as defined in § 18(a)(1)(E) of the AIA and 37 C.F.R. § 42.301, because at least one claim of the '413 patent is directed to a covered business method. Dec. to Inst. 9–18. Accordingly, we concluded the '413 patent is eligible for a covered business method patent review. *Id.*

In its Response, Patent Owner contends the Board does not have jurisdiction over the '413 patent, because the '413 patent is not directed to a financial product or service (Resp. at 14–20; Tr. 35:19–23), but is an invention that implements a technological solution (*id.* at 20–22). Patent Owner asserts that, although the claimed invention could be used by financial institutions for managing financial services, covered business method patent review is inappropriate for inventions directed to basic business activities that might be used merely to support activities of a

financial institution. Resp. at 15. According to Patent Owner, Congress intended covered business method patent reviews to apply only to a narrow class of patents. *Id.* at 15–16. Patent Owner reasons that claims should not be subject to covered business method patent review “simply because [the claims] might be used by those that offer financial products or services, even though they are not a necessary component of a financial activity.” *Id.*

We are not persuaded by Patent Owner’s contention. The ’413 patent discloses use of the claimed method and apparatus for the practice, administration, or management of collaborative activity that can include financial aspects or activities of an organization (Ex. 1001, col. 5, ll. 1–8; col. 11, ll. 27–31; col. 14, ll. 21–31; Figs. 19–20), thereby meeting the requirements of the AIA for covered business method patent review (AIA § 18(d)(1)). Several examples from the ’413 patent specification, reproduced below, include financial aspects or activities of an organization:

[I]f the topic is budgets, the user can sort by goal or project cost (see FIG. 19), or by priority or return on investment (“payback”) (see FIG. 20) and can be provided with information that can help the user decide where to commit resources based on factors such as benefit and risk.

Ex. 1001, col. 11, ll. 27–31; Figs. 19–20 (emphasis omitted).

The fundamental components may include an economics component . . . [which] may include a description of a profit and loss aspect of the scalable process or a description of an investments aspect of the scalable process.

*Id.* at col. 5, ll. 1–8.

[A] user can readily access financial information related to decision making and priorities. . . . [E]conomic return anticipated for achievement of the particular goal or initiative.

*Id.* at col. 14, ll. 21–27.

Access to information, such as that described above, that is organized in a usable manner allows people within the organization to assess the relative value of one goal versus another or the potential profit or loss of a project.

*Id.* at col. 14, ll. 29–31; col. 5, ll. 1–8.

The specification also discloses that the hierarchy organization allows goals or initiatives to be sorted by category, such as costs, thereby helping people decide whether the level of investment required can be afforded. *Id.* at col. 16, ll. 48–53. Additionally, according to the specification, the claimed invention allows management teams “to quickly plan, design, and work on a common portfolio of strategic goals and initiatives” in order to “make the business grow and prosper.” *Id.* at col. 5, ll. 28–31. The multiple disclosures in the ’413 patent of activity that includes financial aspects or activities of an organization indicates the claimed methods and apparatus can be used in the practice, administration, or management of a financial product or service. Thus, we determine a covered business method patent review of the challenged claims is appropriate.

Furthermore, contrary to Patent Owner’s view of the legislative history, the legislative history of the AIA indicates that the phrase “financial product or service” is not limited to the products or services directly related to the financial services industry and is to be interpreted broadly. *See* 37 C.F.R. § 42.301(a). Senator Schumer, for example, stated that a “patent need not recite a specific financial product or service. Rather the patent claims must only be broad enough to cover a financial product or service. . . . Likewise, if a patent holder alleges that a financial product or service infringes its patent, that patent shall be deemed to cover a ‘financial

product or service’ . . . .” 157 Cong. Rec. S1365 (daily ed. Mar. 8, 2011) (statement of Sen. Schumer).

Patent Owner also contends covered business method patent review is not appropriate for patent claims grouped in class 705 during prosecution by the United States Patent and Trademark Office (“USPTO”). Resp. 16–17; Tr. 36:7–25. Class 705 is the USPTO’s classification for patents directed to data processing in the following areas: financial, business practice, management, or cost/price determination. *See* Class 705 (Jan. 2012) at <http://www.uspto.gov/web/patents/classification/uspc705/sched705.pdf> (classification schedule listing subclass titles within Class 705 Data Processing: Financial, Business Practice, Management, or Cost/Price Determination). Patent Owner’s position is unsupportable, because a determination of whether a patent is eligible for covered business method patent review is governed by 35 U.S.C. § 324(a), 37 C.F.R. § 42.301, and § 18 of the AIA, not by the classification of the patent. Moreover, contrary to Patent Owner’s contention, the legislative history of the AIA, indicates that “patents subject to covered business method patent review are anticipated to be typically classifiable in Class 705.” 77 Fed. Reg. at 48,739; *see* 157 Cong. Rec. S1368, S1379 (daily ed. March 8, 2011) (statement of Sen. Kyl). Thus, we are unpersuaded by Patent Owner’s position.

Patent Owner lastly contends covered business method patent review is intended only for patents that did not undergo thorough review by the USPTO for prior art and other issues. Resp. 15 (citing Ex. 2004, 3). The

standard for instituting a covered business method patent review is set forth in 35 U.S.C. § 324(a):<sup>3</sup>

**THRESHOLD.** — The Director may not authorize a post-grant review to be instituted unless the Director determines that the information presented in the petition filed under section 321, if such information is not rebutted, would demonstrate that it is more likely than not that at least 1 of the claims challenged in the petition is unpatentable.

The statute does not allow for review of patent applications; instead, review may only be instituted for issued patent claims. Thus, the claims necessarily would have been reviewed and allowed by an examiner. Moreover, the statute does not recite a presumption of validity for issued patent claims. Rather, we are directed to institute a covered business method patent review if, after consideration of both the petitioner and patent owner's preliminary response, we determine it is more likely than not at least one of the challenged patent claims is unpatentable. Therefore, we find Patent Owner's position to be unsupportable in light of the plain language of the statute.

For the foregoing reasons, we disagree with Patent Owner and find no error in the covered business method patent determination set forth in the Decision on Institution.

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<sup>3</sup> See Section 18(a)(1) of the AIA, which provides that the transitional program for covered business method patents will be regarded as a post-grant review under chapter 32 of title 35 United States Code and will employ the standards and procedures of a post-grant review, subject to certain exceptions.

## II. ANALYSIS

### A. Claim Interpretation

Petitioner bears the ultimate burden of proof that Patent Owner’s claims are unpatentable under §§ 101 and 102. We begin our analysis with claim construction. *Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Canada*, 687 F.3d 1266, 1273–74 (Fed. Cir. 2012) (“[I]t will ordinarily be desirable—and often necessary—to resolve claim construction disputes prior to a § 101 analysis, for the determination of patent eligibility requires a full understanding of the basic character of the claimed subject matter.”).

In a covered business method patent review, claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.300(b). Under the broadest reasonable construction standard, claim terms are given their ordinary and customary meaning as would be understood by one of ordinary skill in the art at the time of the invention in the context of the entire patent disclosure. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). An inventor may rebut that presumption by providing a definition of the term in the specification with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). In the absence of such a definition, limitations are not to be read from the specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Neither Petitioner nor Patent Owner contends that the specification of the ’413 patent, as filed, coined a new meaning for any term, different from the ordinary recognized meaning for any term.

1. “*system being implemented using a processor and a storage device accessible to the processor*”

The preamble of claim 1 recites a “system being implemented using a processor and a storage device.” Petitioner contends that the recited processor and storage device need not be components of the claimed system because they are not positively recited elements. Pet. 11 (citing Ex. 1002 ¶ 39). We are not persuaded by Petitioner’s reasoning, because the processor and storage device recited in the preamble of each independent claim of the ’413 patent serve as the antecedent basis for “said processor” and “the storage device” recited in the body of each claim. Dec. to Inst. 18–19 (citing *C.W. Zumbiel Co., Inc., v. Kappos & Graphic Packaging Int’l*, 702 F.3d 1371, 1385 (Fed. Cir. 2012) (noting that a preamble constitutes a limitation when the elements in the body of a claim depend on it for antecedent basis)). Furthermore, if the plain language of a claim indicates that a system is implemented by certain components, then those components constitute required parts of the system. “Implemented,” in that setting, can mean “constituted” or “formed.” Therefore, we construe the clause as setting forth that the processor and the storage device are both components of the claimed system.

2. “*model entities*”

The ’413 patent specification indicates that “model entity” is a set of assembled computer data or data item that represents fundamental components of a model. *See* Ex. 1001, col. 2, ll. 37–42. Therefore, the phrase “model entity,” which is recited in all independent claims, is construed to mean “a set of assembled computer data or data item that represents fundamental components of a model.” In its Response, Patent

Owner challenges our construction of this term, arguing that a data set only qualifies as a “model entity” if the data set provides a user with the capability to perform specified operations on the model. Resp. 11–12.

According to the Patent Owner, its proposed construction for the term “model entity” is consistent with the understanding of one of ordinary skill in the computer and software arts. In support of its construction, the Patent Owner cites *The IEEE Standard Dictionary of Electrical and Electronics Terms*, 6th Edition, published in 1997 (hereinafter IEEE dictionary). Resp. 11. The IEEE dictionary defines “model” in the computer context as “[a]n approximation, representation, or idealization of selected aspects of the structure, behavior, operation, or other characteristics of a real-world process, concept, or system.” Ex. 2001, 660 (dictionary entry for “model”). The IEEE dictionary defines “entity” as “[i]n an open system, an element in a hierarchical division” that “has attributes that describe it, a name that identifies it, and an interface that provides management operations.” *Id.* at 361 (dictionary entry for “entity”).

We agree with Patent Owner that the specification of the ’413 patent teaches that “model entity” is a set of assembled computer data or data item that represents fundamental components of a model. *See* Ex. 1001, col. 2, ll. 37–42. Patent Owner, however, does not (1) point to any disclosure in the specification that requires a data object to provide the capability for a user to perform specified operations on the model in order for the data object to qualify as a “model entity,” or (2) offer any persuasive evidence regarding the meaning of “model entity.” Therefore, we construe the phrase “model entity” as “a set of assembled computer data or data item that represents fundamental components of a model.”

3. “*hierarchies having a plurality of types*”

Independent claims 1 and 7 recite “hierarchies having a plurality of types.” Petitioner contends the broadest reasonable construction of the term “hierarchy” includes at least two levels, with a lower level having a subordinate relationship to a higher level. Pet. 13. The Patent Owner contends that, in the computer and software arts, a hierarchy is understood to be “[a] structure in which components are ranked into levels of subordination.” Prelim. Resp. 13 (citing Ex. 2001, 485). The parties’ constructions for “hierarchy” are consistent and we agree that “hierarchy” means “a structure that includes at least two levels, with the levels ranked into subordination.”

The Petitioner then contends that with regard to hierarchies, a “plurality of types” includes two or more identical or distinct hierarchies. *Id.* (citing Ex. 1002 ¶ 46). The Patent Owner contends that the term “type” is understood in the computer and software arts as a “category into which attribute values are placed on the basis of their purpose.” *Id.* (citing Ex. 2001, 1155). Thus, Patent Owner concludes that “hierarchies having a plurality of types” means “a grouping of data structures [ ] according to their subject matter or purpose, with each grouping being ranked into levels of subordination.” *Id.* According to the Patent Owner, such a construction is consistent with how the term is used in the specification of the ’413 patent. *See, e.g.*, Ex. 1001, Figs. 3, 8, 16 (illustrating “goal,” “plan,” and “domain” hierarchies). We are not persuaded by Petitioner’s contention that a “plurality of types” includes identical hierarchies. “Identical” simply is not consistent with a contrast in type. We are persuaded by Patent Owner’s contention as it accounts for multiple levels of subordination and different

subject matter. Furthermore, it is consistent with the specification. Therefore, we adopt Patent Owner’s proposed construction. Thus, “hierarchies having a plurality of types” is construed to mean “a grouping of data structures [ ] according to their subject matter or purpose, with each grouping being ranked into levels of subordination.”

4. “*model entities as ordered by a value in the information concerning the collaborative activity*”

Claims 1, 7, and 16 of the ’413 patent recite the limitation “model entities as ordered by a value in the information concerning the collaborative activity.” Patent Owner contends this phrase should be construed as “model entities *sorted into an order according to the value in the information concerning the collaborative activity,*” and that such a construction is consistent with the plain and ordinary meaning of the term “ordered” and “sorted” and with the ’413 patent specification, which provides examples of sorting model entities according to cost, payback, priority, domain, or due date. Resp. 12–13 (citing Ex. 1001, col. 16, ll. 48–57, Fig. 17) (emphases added).

Petitioner originally argued in the Petition that “[w]hile an ordered or sorted arrangement may require some modicum of organization, nothing in the ’413 patent limits an ‘ordered’ or ‘sorted’ arrangement to any particular arrangement.” Resp. 13 (citing Pet. at 15). According to Patent Owner, however, Petitioner’s original proposed construction would mean that “a deck of cards that is thrown across a room such that the cards land on the floor in a completely random order would nonetheless be ‘ordered’ because the cards would have a modicum of organization.” Resp. 13. We disagree with Patent Owner’s characterization of Petitioner’s proposed construction

of “order,” because a completely random order is not “ordered by a value.” Petitioner now asserts that the Board’s applied construction of “value” to mean more than “cost” and “order” to include “providing an organized [or] ordered display” is correct and should be maintained. Reply 1 (citing Dec. to Inst. 36–37).

We agree with Patent Owner that “ordered” and “sorted into an order” are consistent terms; the use of these terms is supported by the ’413 patent specification. We do not agree with Patent Owner, however, that “by a value” means “according to the value,” because Patent Owner’s proposed construction appears to require a single, defined numerical figure (e.g., cost, payback, priority, domain, or due date). The ’413 patent specification does not appear to dictate, however, that value must be (i) one single number, (ii) a fixed number, or (iii) a number. Rather, “a value in the information” can include subject information, such as project status or who is responsible for a project. Ex. 1001, col. 11, ll. 32–36. Patent Owner fails to offer sufficient reasoning or evidence for adopting a narrow (i.e., number oriented) view of the term “value.” We, therefore, decline to read narrowing limitations into the claims, and we construe the phrase “model entities as ordered by a value in the information concerning the collaborative activity” to mean “model entities sorted into an order based on any value in the information concerning the collaborative activity.”

*B. Claims 1–21 — Unpatentable Under 35 U.S.C. § 101 as Directed to Non-Statutory Subject Matter*

Petitioner challenges claims 1–21 of the ’413 patent, under 35 U.S.C. § 101, as directed to patent-ineligible subject matter. Pet. 15–20. Patent Owner maintains that its claims are directed to patent-eligible processes and

machines, because the claims require “a specific series of necessary steps, i.e., a specialized algorithm, that limits the [claimed] activity” and removes the claims from the realm of being an abstract idea. Resp. 26.

*1. Statutory Class of Subject Matter*

For claimed subject matter to be patent eligible, it must fall into one of four statutory classes set forth in 35 U.S.C. § 101: a process, a machine, a manufacture, or a composition of matter. The Supreme Court recognizes three categories of subject matter that are ineligible for patent protection: “laws of nature, physical phenomena, and abstract ideas.” *Bilski v. Kappos*, 130 S. Ct. 3218, 3225 (2010) (internal quotations and citation omitted). A law of nature or an abstract idea by itself is not patentable; however, a practical application of the law of nature or abstract idea may be deserving of patent protection. *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1293–94 (2012).

In *Alice Corp. Pty, Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014), the Supreme Court recently clarified the process for analyzing claims to determine whether claims are directed to patent-ineligible subject matter. In *Alice*, the Supreme Court applied the framework set forth previously in *Mayo*, “for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of these concepts.” *Alice*, 134 S. Ct. at 2355. The first step in the analysis is to “determine whether the claims at issue are directed to one of those patent-ineligible concepts.” *Id.* If they are directed to a patent-ineligible concept, the second step in the analysis is to consider the elements of the claims “individually and ‘as an ordered combination’” to determine whether there are additional elements that “transform the nature of the

claim’ into a patent-eligible application.” *Id.* (quoting *Mayo*, 132 S. Ct. at 1291, 1297). In other words, the second step is to “search for an ‘inventive concept’—*i.e.*, an element or combination of elements that is ‘sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.’” *Id.* (alteration in original) (quoting *Mayo*, 132 S. Ct. at 1294).

The patents at issue in *Alice* claimed “a method of exchanging financial obligations between two parties using a third-party intermediary to mitigate settlement risk.” *Alice*, 134 S. Ct. at 2356. Like the method of hedging risk in *Bilski v. Kappos*, 130 S. Ct. at 3240—which the Court deemed “a method of organizing human activity”—*Alice*’s “concept of intermediated settlement” was held to be “a fundamental economic practice long prevalent in our system of commerce.” *Alice*, 134 S. Ct. at 2356. Similarly, the Court found that “[t]he use of a third-party intermediary . . . is also a building block of the modern economy.” *Id.* “Thus,” the Court held, “intermediated settlement . . . is an ‘abstract idea’ beyond the scope of § 101.” *Id.*

2. *Claims 1–21 are Directed to an Abstract Idea*

Petitioner contends that challenged claims 1–21 cover the abstract idea of using intangible models to process management information and to manage collaborative activity. Pet. 16–17; Tr. 8:17–22, 9:7–25. According to Petitioner, independent claims 1, 7, and 20 recite a data storage device containing a representation of a model of collaborative activity, while independent claim 8 recites a method of supporting management of a collaborative activity. Pet. 16. Petitioner argues these models and methods are intangible abstract ideas. *Id.* at 17. Petitioner further argues that the

addition of basic computer operations, such as those recited in claim 1, do not narrow sufficiently the scope of the claims beyond the abstract idea, as they are insignificant pre- or post-solution activity. *Id.* at 18. Likewise, Petitioner argues that the incidental use of a processor and storage device, to permit a solution to be achieved more quickly, does not impose sufficiently meaningful limits on the claims so as to satisfy § 101. *Id.* at 18–19.

Patent Owner asserts that Petitioner ignores several tangible claim limitations that narrow the claims, so that they do not cover the full, abstract idea of collaborative activity. Resp. 26–29; Tr. 43:21–44:2. Specifically, Patent Owner points to: (i) a processor, which is required to carry out six specific operations; (ii) a storage device; (iii) a model of collaborative activity; (iv) model entities; and (v) a plurality of hierarchies having a plurality of types. Resp. 30. Patent Owner argues that these limitations are not insignificant pre- or post-solution activity, because they are part of the solution for building a model of collaborative activity. *Id.* at 30–35. Patent Owner further asserts that the processor and storage device do *not* merely permit the solution to be achieved more quickly, but, rather, are a specific way of supporting management of a collaborative activity. *Id.* at 35.

Patent Owner then argues that challenged claims were reviewed thoroughly by our predecessor, the Patent Board of Appeals and Interferences, and by a district court. *Id.* at 36–37. According to Patent Owner, the claims were amended “to recite a specific way of supporting management of collaborative activity with a computer and a storage device [in order] to overcome the Board’s subject matter rejection as software per se.” *Id.* at 36. Thus, according to Patent Owner, the claims are directed to patent eligible subject matter. *Id.*

Patent Owner lastly argues that its claims are similar to those found patentable in *Ultramerical, Inc. v. Hulu, LLC*, 722 F.3d 1335 (Fed. Cir. 2013). *Id.* at 28, 32–34. The *Ultramerical* decision, however, was vacated and remanded for reconsideration in light of the ruling in *Alice*. *WildTangent, Inc. v. Ultramerical, LLC*, No. 13-255, 573 U.S. 2870 (June 30, 2014). Thus, we follow the steps as laid out in *Alice* and in *Mayo* when analyzing whether claims are directed to § 101 eligible subject matter.

As the first step of our analysis, we must determine if the claims at issue are directed to a patent-ineligible concept, such as an abstract idea. *See Alice*, 134 S. Ct. at 2355. “[I]t is important at the outset to identify and define whatever fundamental concept appears wrapped up in the claim so that the subsequent analytical steps can proceed on a consistent footing.” *CLS Bank Int’l v. Alice Corp. Pty. Ltd.*, 717 F.3d 1269, 1282 (Fed. Cir. 2013) (plurality opinion). Here, the challenged claims are directed to a representation of a model for use in processing management information of a collaborative activity. Ex. 1001, col. 2, ll. 37–47. To aid in the management of a collaborative activity (e.g., developing customer relationships), a computer database is created that represents a model of the collaborative activity. Ex. 1004, 116. The model includes model entities (e.g., goals and projects) organized into a plurality of hierarchies (e.g., goals to be done and project hierarchy for doing them, or domain hierarchy of functional areas) having a plurality of types. *Id.*; *see also* Ex. 1001, Fig. 3 (hierarchy of goals and projects), Fig. 8 (hierarchy of domains). The model may contain data such as the customer segment, products, needs, etc. Ex. 1001, col. 2, l. 60–col. 3, l. 16. A processor provides a graphical user interface (“GUI”) for interaction with a user. Ex. 1004, p. 0116; *see* Ex. 1001, Fig. 9 (GUI

displaying goals belonging to a domain). Therefore, given this disclosure, we find that the challenged claims are directed to an abstract idea, the creation and use of models to aid in processing management information by organizing and making the information readily accessible by the collaborators of the project. *See, e.g.*, Ex. 1001, col. 2, l. 9–col. 5, l. 8. The model, as described by the specification, is a disembodied concept that is not tied to a specific algorithm or specialized computer. Thus, at the first step of the analysis, we determine the claims at issue here are directed to a patent-ineligible concept: an abstract idea.

### 3. *The Claims Lack an Inventive Concept*

Next, proceeding to the second step in the analysis, we look for additional elements that can “transform the nature of the claim” into a patent-eligible application of an abstract idea. That is, we determine whether the claims include an “inventive concept,” i.e., an element or combination of elements sufficient to ensure that the patent in practice amounts to significantly more than a patent on the abstract idea itself. *Alice*, 134 S. Ct. at 2357. The relevant inquiry here is whether “additional substantive limitations . . . narrow, confine, or otherwise tie down the claim so that, in practical terms, it does not cover the full abstract idea itself.” *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344–45 (Fed. Cir. 2013) (internal quotations and citation omitted). The Court in *Alice* cautioned that merely limiting the use of abstract idea “to a particular technological environment” or implementing the abstract idea on a “wholly generic computer” is not sufficient as an additional feature to provide “practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.” *Alice*, 134 S. Ct. at 2358

(citations omitted). Petitioner asserts that the claims of the '413 patent do not add any inventive concept to the abstract idea of managing collaborative activity. Pet. 17. Specifically, Petitioner asserts that the recitation of a computer system and generic computer equipment, such as a “processor” and “storage device,” does not limit the claims sufficiently or add concrete ties to make the claims less abstract. *Id.* at 17–18.

Patent Owner asserts the challenged claims are narrow in scope and do not cover the full abstract idea of collaborative activity, because the claims recite “a specific series of necessary steps, i.e., a specialized algorithm, that limits the collaborative activity.” Resp. 26. According to Patent Owner, the claims also recite limitations that tie the idea to specific computer-related elements. *Id.* Specifically, Patent Owner points to the processor of claim 1, which is alleged to perform six operations: (i) controlling access to the model entity; (ii) creating, modifying, and/or deleting the model entity; (iii) assigning the model entity to a location in a hierarchy; (iv) accessing and/or modifying the information concerning the collaborative activity via the model entity; (v) viewing model entities as ordered by a hierarchy; and (vi) viewing model entities as ordered by a value in the information concerning the collaborative activity. *Id.* Patent Owner asserts that the recited processor is a specialized computer that is programmed to execute a series of steps. Resp. 27. The Patent Owner further relies upon “a storage device” as a substantive limitation. *Id.*

We find Petitioner’s argument persuasive, even in light of Patent Owner’s counterarguments, because the claims of the '413 patent do not add any inventive concept to the abstract idea of managing collaborative activity. First, the claims do not recite a specialized algorithm that could move the

claims from the abstract to the concrete. Second, with respect to the processor, we note that at least operations (ii) through (vi) actually are carried out by the user, albeit, via the processor. Lastly, with respect to both the processor and storage device, we note that simply executing an abstract concept on a computer does not render a computer “specialized,” nor does it transform a patent-ineligible claim into a patent-eligible one. *See Bancorp Servs., LLC v. Sun Life Assurance Co. of Can.*, 687 F.3d 1266, 1280 (Fed. Cir. 2012).

Thus, the challenged claims fail to satisfy the second step of our analysis under *Alice*, because simply adding a computer and an associated storage device to the abstract idea of using a model, to organize and make available management information to collaborators jointly working on a project, does not impose meaningful limits on the claims. Specifically, the storage device merely stores the data, and the processor just performs insignificant, conventional, and routine steps (e.g., creating, editing, displaying) in direct response to the user’s input. These pre- and post-solution activities do not impose meaningful limits on the scope of the claims and are not integral to the invention as a whole. *See Bancorp*, 687 F.3d at 1278; *SiRF Tech., Inc., v. Int’l Trade Comm’n*, 601 F.3d 1319, 1333 (“In order for the addition of a machine to impose a meaningful limit on the scope of a claim, it must play a significant part in permitting the claimed method to be performed . . .”). Therefore, Patent Owner’s attempt to characterize the claimed invention as covering more than an abstract idea is unpersuasive, as it is not supported by corresponding meaningful substantive limitations.

Patent Owner also cites to a model of collaborative activity, model entities, and a plurality of hierarchies having a plurality of types, as describing a particular type of model and thus, removing the claims from the realm of the abstract. Resp. 32–33. All of those claim limitations, however, are overly broad in scope and essentially would preempt the entirety of abstract idea (i.e., it would preclude individuals from using a model to organize and make available management information to collaborators jointly working on a project). For example, a “model entity” is simply data representing a fundamental component of the model; and “hierarchies having a plurality of types” are ranked groupings of data according to their subject matter or purpose. *See* Section II.A. Claim Construction, above. For example, the claims would apply broadly to a customer list ranked by size of past orders, geographic location, or product type. Thus, the claims essentially would preempt the sharing of a database used for a collaborative activity, provided that the data is organized in ranked groupings according to subject matter or purpose.

Moreover, the claims are not limited to a particular type of collaborative activity, or to a particular industry or business. Rather, the claims are directed to any activity involving two or more people working together and sharing data arranged in a hierarchical fashion. While the claims recite the limitation of using a storage device and/or processor, such limitations are not meaningful as most practical applications of such a database would involve a computer. “In short, each step does no more than require a generic computer to perform generic computer functions.” *Alice*, 134 S. Ct. at 2359.

We also are not persuaded by Patent Owner’s argument that the claims have been reviewed previously by the Board of Patent Appeals and Interferences, as well as a district court, and have been found to cover patent-eligible subject matter. Resp. 36–37. The decisions cited by Patent Owner issued prior to the Supreme Court’s holding in *Alice*, and thus, lacked the benefit of authoritative guidance regarding the framework for analyzing § 101 eligible subject matter that was provided by the Court in *Alice*.

Lastly, we are not persuaded by Patent Owner’s argument that the challenged claims are similar to those at issue in *Ultramercial*, 722 F.3d at 1337–38. First, as noted above, the *Ultramercial* decision was vacated and remanded for reconsideration in light of the ruling in *Alice*. *WildTangent, Inc. v. Ultramercial, LLC*, No. 13-255, 573 U.S. 2870 (June 30, 2014). Second, in the present case, the processor and storage device limitations are directed to a general, rather than a specific, computer system, and the general system does not provide meaningful limitations to the scope of the claimed invention. Therefore, the claims at issue in the ’413 patent are unlike the claims in *Ultramercial*. Rather, the challenged claims are more similar to the patent-ineligible system claim of *Alice*. In *Alice*, the claims contained limitations, such as a data storage unit and a general purpose computer that received transactions, adjusted variables in the data storage unit, and generated instructions. *Alice*, 134 S. Ct. at 2359.

For the foregoing reasons, we conclude that Petitioner has demonstrated by a preponderance of the evidence that the challenged claims are directed to patent-ineligible subject matter under § 101.

*C. Claims 1–21 – Unpatentable Under 35 U.S.C. § 102 as Anticipated by Ito*

Petitioner alleges claims 1–21 of the '413 patent are unpatentable under 35 U.S.C. § 102 over Ito. Pet. 48. Patent Owner disputes Petitioner's position, arguing that Ito does not disclose several recited claim elements, and thus, cannot be an anticipatory reference. Resp. 38. As discussed below, we are persuaded by Petitioner's reasoning regarding the disclosure of Ito. Thus, we conclude that claims 1–21 are unpatentable as anticipated by Ito.

*1. Ito's Disclosure*

Ito describes a system for managing information relating to construction projects, so that project data can be exchanged between people engaged in different domains of a project. Ex. 1007, col. 1, ll. 10–12; col. 1, ll. 50–57. Figure 1 of Ito is reproduced below:

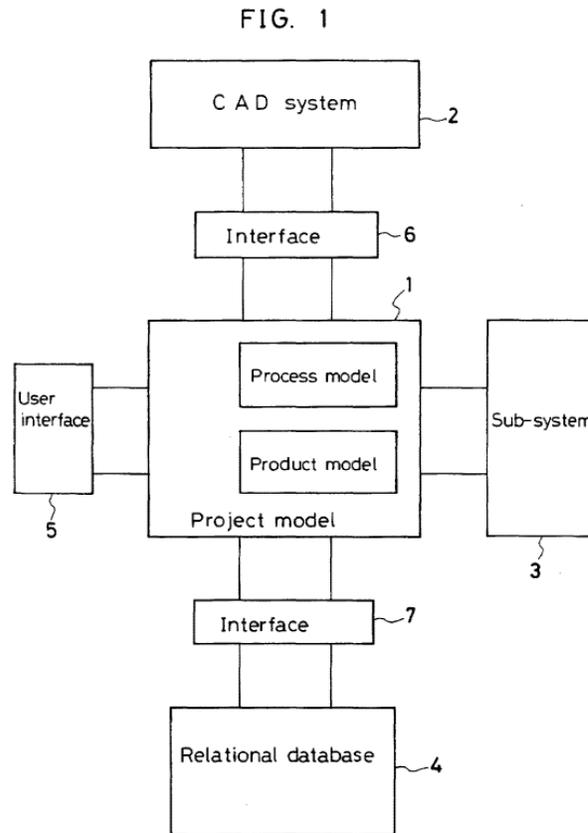


Figure 1, reproduced above, illustrates one embodiment of the system in Ito, which includes (i) project model 1, which combines a product model and a process model, and (ii) user interface 5 for interacting with project model 1. The product model and process model are comprised of objects that are arranged in a hierarchical structure. Ex. 1007, col. 1, ll. 13-15. The product model defines a product by using physical elements and functional elements, while the process model defines activities related to the product. *Id.* at col. 2, ll. 8-10. The process model includes an information reference method for fetching necessary information from the data in the product model. Ex. 1007, col. 2, ll. 20-23. According to Ito, it is possible to store client information, site neighborhood information, cost information, etc., in the product model. *Id.* at col. 12, ll. 19-21.

User interface 5 controls access to the information and hierarchical structures in the product and process models. Ex. 1007, col. 5, ll. 9-10.

In one embodiment of Ito, as shown in Figure 2, project model 1 (from Figure 1) is composed of (i) a global view; (ii) a project view, which constitutes a process model; and (iii) an object view, which constitutes a product model, for each project. *Id.* at col. 5, ll. 13-16. Figure 2 of Ito is reproduced below:

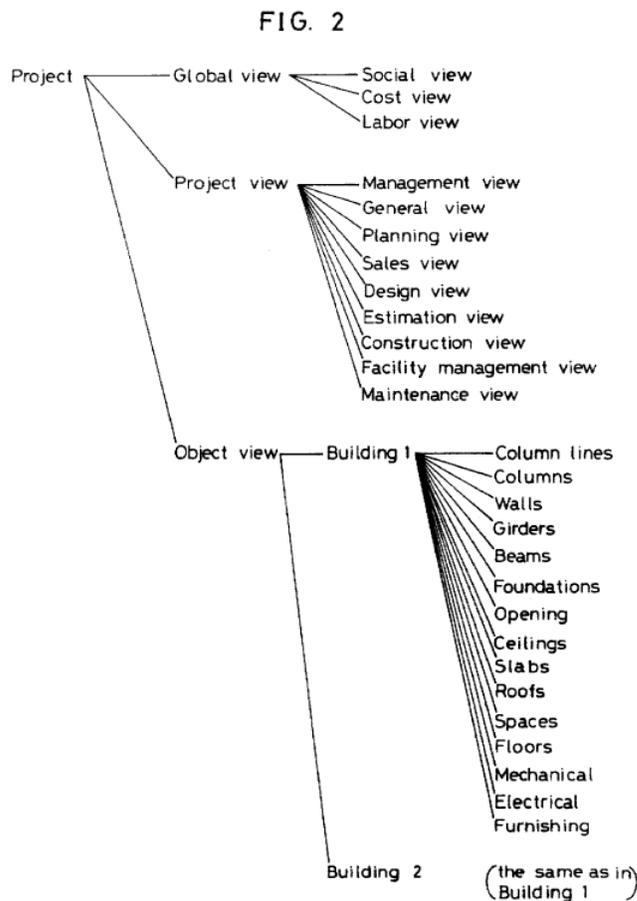


Figure 2, reproduced above, illustrates that within the global view, project view, and object view, there are additional subordinate views. Ex. 1007, col. 5, ll. 13-21. Views are viewpoints, which are each defined as objects along the flow of productive activities in the process or product model. *Id.* at col. 5, ll. 44-45. For example, the management view (a

subordinate view to the project view) is a project manager's viewpoint, which may be broken down further into various subordinate views. *Id.* at col. 5, ll. 46-49. Figure 3(b) of Ito is reproduced below:

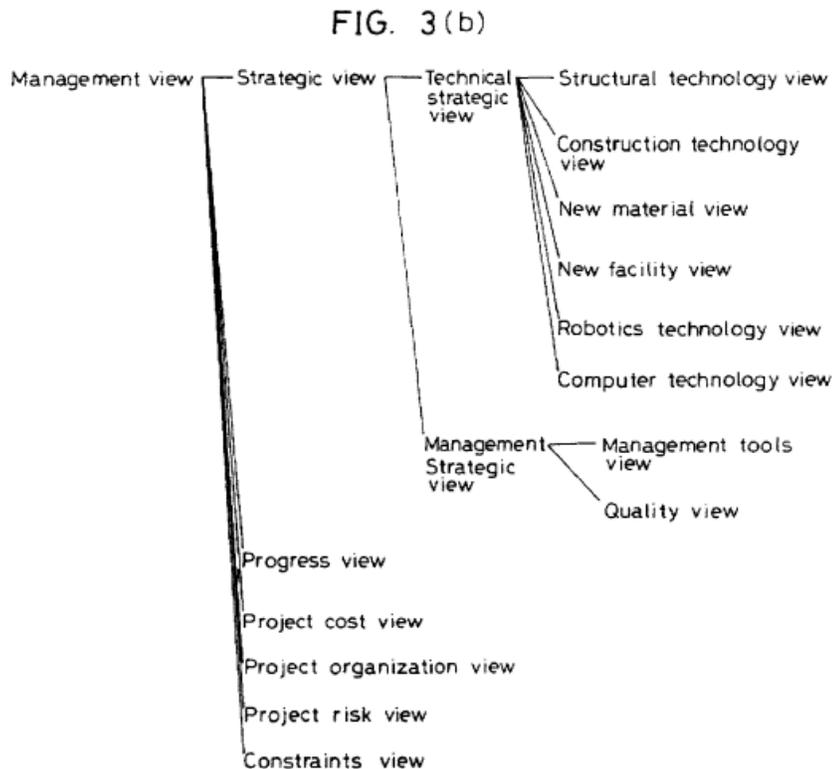


Figure 3(b), reproduced above, illustrates that from the project manager's viewpoint, the progress of the project may be strategically considered. This strategic view may contain sub-views (e.g., a progress view, a project cost view, a project organization view, and a project risk view). *Ex. 1007*, col. 5, ll. 50-54.

Each object that is defined as a process model can have data, various kinds of functions, system rules, etc., as the contents of the model. That approach enables each person-in-charge to remove or obtain information necessary for a specific activity from the product model or objects, so that it may be used by other persons-in-charge based on their particular activity. *Id.* at col. 12, ll. 49-54. In addition, Ito discloses that the functions and rules

defined in each object enable an authorized user to change a relationship defined in an object, in the product model, as desired. Ex. 1007, col. 12, ll. 55–58. A user also can view model entities in an order selected by the user. *Id.* at col. 9, ll. 33–35.

## 2. Analysis

We have reviewed and are persuaded by Petitioner’s presentation regarding Ito, including the claim charts (Pet. 52–72). We address below more specifically only those issues which are in dispute.

- a. *“model entity being capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types”*

Claims 1 and 7 require a model entity capable of simultaneously belonging to a hierarchy having one type and a hierarchy having another type. Claims 8 and 20 require that a representation of a model entity be capable of simultaneously belonging to hierarchies, including a hierarchy and another hierarchy. We consider a hierarchy “having one of the types” as meaning that the hierarchy is “of one type,” and a hierarchy “having another of the types” as meaning that the hierarchy is “of another type.”

Petitioner contends that Ito discloses views, and that those views constitute hierarchies. Pet. 50. Ito teaches that the views are sets of hierarchical objects, where each object can have data and various functions so that information necessary for a given activity can be accessed. Ex. 1007, col. 2, ll. 46–50. Examples of views that constitute hierarchies are illustrated in Figures 2, 3b, and 4a of Ito. According to Petitioner, Figure 2 shows a hierarchical structure for a Project View, whereas Figures 3b and 4a show a different hierarchical structure for a Management View. Pet. 50–51.

Petitioner reasons that although the Management View is a subordinate view to the Project View, the Management View has multiple views distinct from just the Project View. Likewise, the Project View has multiple subordinate views, in addition to the Management View. Therefore, the Petitioner concludes that the Project View is a hierarchy having one type and the Management View is a hierarchy having another type. *Id.*

We are persuaded by Petitioner’s contention regarding the reading of views as hierarchies, because the disclosed views fall within the scope of the term “hierarchies having a plurality of types.” That is, the views are a grouping of data structures according to their subject matter or purpose, with each grouping being ranked into levels of subordination. Although a view containing a subordinate view satisfies “hierarchies,” we note that a view on the lowest level, which does not have a subordinate view, would not qualify as a “hierarchy.” We are persuaded further by Petitioner’s contention that the Project View and the Management View are of different types, based on the disclosures in Ito’s Figures 2, 3b, and 4a.

The Petitioner then contends that model entities or representations of model entities can be associated with more than one view or hierarchy. Pet. 49–50. According to Petitioner, model entities in Ito are items that appear in a view. *Id.* at 50. The Petitioner reasons that the items (or model entities) subordinate to the Management View, are also subordinate to the Project View hierarchy, and therefore, belong to multiple different hierarchies. *Id.* at 55. We are persuaded by the Petitioner’s reasoning.

Patent Owner asserts that Ito is not an anticipatory reference, because Ito fails to disclose the recited claim limitation “a given model entity being

capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types.” Resp. 39. Patent Owner explains that Figures 2, 3b, and 4a indicate that the items subordinate to the Management View and Project View do not belong to multiple different hierarchies. Resp. 41. According to Patent Owner, these figures instead indicate that these items belong to the same, single hierarchy having a root item labeled “Project.” *Id.* Patent Owner states “each of FIGs. 3b and 4a shows a different portion of the same hierarchy that is shown in FIG. 2 (*i.e.*, the single hierarchy having a root item labeled “Project”) . . . FIGs. 3b and 4a do not show a hierarchy that is different than the hierarchy shown in FIG. 2 . . . That is, FIGs. 2, 3b, and 4a illustrate the same, single hierarchy.” Resp. 42. Thus, Patent Owner reasons that Petitioner has failed to identify a single model entity that appears in both the Project View and the Management View. *Id.*

We are not persuaded by Patent Owner’s argument, because, upon reviewing Figures 2 and 3, it is apparent that the subordinate views in the Management View hierarchy (such as Strategic View and Technical Strategic View) can both be its own hierarchy as well as a subordinate view in the Project View hierarchy. Therefore, a model entity in the Strategic View can belong “simultaneously” to the Management View hierarchy and the Project View hierarchy, thus meeting the pertinent claim limitation.

Furthermore, the claims only require that (i) a given model entity be *capable of* simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types, or (ii) that a representation of a model entity be *capable of* simultaneously belonging to hierarchies, including a hierarchy and another hierarchy. Ito indicates that a model entity

in the Management View hierarchy from Figures 2 and 3 is capable of simultaneously belonging to the Project View hierarchy. Thus, we are persuaded that the disclosure in Ito meets the disputed claim limitation.

Additionally, as shown in Figure 1, Ito discloses a process model and product model hierarchies, having model entities with data accessible between the hierarchies. *See* Ex. 1007, col. 1, ll. 14–15; col. 2, ll. 38–51; *see also id.* at Figs. 2, 3(b), 4(a); col. 5, ll. 11–22. Model entities in one hierarchy can be fetched by the other hierarchy. *Id.* at col. 2:16–25; col. 2, ll. 52–64; Abstract. Ito teaches “the object-oriented building model 1 automatically fetches information from the product model . . . .” Ex. 1007, col. 4, ll. 60–67; *see also id.* at col. 10, l. 58–col. 11, l. 44. Patent Owner fails to address this example of model entities that are “capable of simultaneously belonging to a hierarchy having one of the types and a hierarchy having another of the types.”

*b. “viewing model entities as ordered by a value in the information concerning the collaborative activity”*

Claims 1, 7, and 16 of the ’413 patent recite the following limitation: “viewing model entities as ordered by a value in the information concerning the collaborative activity.”

Petitioner asserts that Ito discloses software that allows a user to view model entities in a hierarchy. Pet. 56 (citing Ex. 1007, col. 5, ll. 9–10). According to Petitioner, Ito can display model entities in an order based on the value of the information in a model entity. Pet. 58 (citing Ex. 1007, col. 10, ll. 47–53); *see also* Ex. 1007, col. 9, ll. 33–35; col. 9, ll. 46–49; col. 9, ll. 57–66; col. 10, ll. 47–53; Fig. 6(b). Ito teaches that the display order of model entities can differ according to the user’s intended usage for various

activities in the project. Ex. 1007, col. 10, ll. 34–39. The display order and view is set automatically in Ito, when a user declares his position regarding a project during log-on to the computer interface. *Id.*

Patent Owner disagrees with Petitioner’s reading of Ito and argues that Petitioner “fails to establish that Ito discloses ‘viewing model entities as ordered by a value in the information concerning the collaborative activity,’ as recited in the claims and *as illustrated with the exemplary ordering according to cost value in the specification* for several reasons.” Resp. 46 (emphasis added). Patent Owner contends that to equate “value” with “cost” is not an overly narrow view of the term “value,” because Patent Owner has “identified the cost in the specification of the ’413 patent as an example of value of information that is used to order model entities.” Resp. 47. According to Patent Owner, “[i]n contrast to *the Specification* of the ’413 Patent, Ito does not disclose any value of an information field that is used to order model entities.” *Id.* (emphasis added). Therefore, Patent Owner argues that Petitioner’s reliance on exemplary Figure 6(b) for the disclosure of the disputed claim limitation is misplaced, because Figure 6(b) merely lists general information about a building and fails to disclose any value associated with an information field. *Id.* Patent Owner’s declarant, Neeraj Gupta, testified that “[i]n order to meet th[e] claim limitation, Ito must necessarily disclose a value of information that is used to order model entities.” Ex. 2006 ¶ 34.

We are not persuaded by Patent Owner’s contentions. First, the plain language of the claims of the ’413 patent do not require that model entities be viewed in an order dictated by costs or any other numerical value. Patent Owner’s position requires us to read limitations into the claims from the

specification based on one embodiment that depicts the claimed model entities ordered based on cost information. *See Arlington Indus., Inc. v. Bridgeport Fittings, Inc.*, 632 F.3d 1246, 1254 (Fed. Cir. 2011) (patent coverage is not limited necessarily to inventions described in the embodiments or depicted in the figures). To base a reading of the claims solely on the description of the invention in the specification would be to improperly import limitations from the specification into the claims and to read claims in a narrow and restrictive manner. *Id.* “[C]laims will not be read restrictively unless the patentee has demonstrated a clear intention to limit the claim scope using words or expressions of manifest exclusion or restriction.” *Martek Biosciences Corp. v. Nutrinova, Inc.*, 579 F.3d 1363, 1381 (Fed. Cir. 2009); *Liebel–Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004). The ’413 patent does not show a clear intent to limit the claims with model entities viewed in an order based on numerical or financial values. We, therefore, decline to read the claims restrictively with limitations from the specification.

Second, Patent Owner acknowledged during oral argument that the items in Figure 6(b) are placed in an order according to elevation. Tr. 60:5–8, 60:19–23. Thus, the information in Figure 6(b) of Ito is ordered by a criteria of elevation, which is a value associated with the information even though it is not a financial or cost value. The term “value” is not restricted in meaning to merely the “cost” of an item. As Ito discloses, “value” can be associated with information that is not cost, but rather is dependent upon how a user values information. Ex. 1007, col. 6, ll. 54–56; col. 9, ll. 33–35. Therefore, Ito does not need to disclose the “value” of information in order

to allow a user to order the information according to the “value” that the user associates with the information.

Lastly, Patent Owner does not address Petitioner’s other citations to Ito, where Ito discloses that a “value associated with the information is placed in the slot or data item in the form of a function” (Ex. 1007, col. 6, ll. 54–56), and that a user also can model entities in an order selected by the user based on the function of each entity (*id.*, col. 9, ll. 33–35). *See* Pet. 58. Therefore, we are persuaded by Petitioner’s contention that Ito allows viewing of model entities ordered by a value in the information concerning the collaborative activity, thereby meeting the recited claim limitation.

*c. “on a model entity as limited by a type of access which the person has to the model entity”*

Independent claims 1 and 7 recite that an ordering of model entities is an operation “on a model entity as limited by a type of access which the person has to the model entity.” Petitioner contends that Ito discloses this claim element because Ito provides a right of access set by the system for each user. Pet. 56 (citing Ex. 1007, col. 7, ll. 57–61; col. 7, l. 62– col. 8, l. 7; col. 8, ll. 33–65); Reply 13. Ito specifically states “each user can readily execute his own activity and retrieve necessary information concerned with other activities. It is also possible to readily [a]ffect a security control for the model. Therefore, a right to access is set by the system for each user.” Ex. 1007, col. 7, ll. 57–61. Patent Owner contends that Petitioner fails to provide any evidence that Ito meets the claims element. Resp. 50. During oral argument, Patent Owner argued that the claim limitation indicates that a user can “perform operations on a model entity, but not [every user] can

perform any operation on a model entity” because “some users have authority to perform those operations and some don’t.” Tr. 62:3–15.

Patent Owner’s argument is not persuasive, because Ito discloses hierarchical structures that can be accessed by different users, who have various levels of authorized access. Ex. 1007, col. 8, ll. 45–58. Specifically, Ito’s “user interface 5 controls the access to a hierarchical view according to an occupation inputted by each user.” *Id.* at col. 5, ll. 9–10. “It is also possible to readily [a]ffect a security control for the model. Therefore, a right to access is set by the system for each user.” *Id.* at col. 7, ll. 59–61; *see also id.* at col. 7, l. 57–col. 9, l. 24.

*d. “a first hierarchical relationship between the model entity and another model entity belonging to the hierarchy” and “a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy”*

Independent claims 8 and 20 require (1) a first hierarchical relationship between a first model entity (called “the model entity” in the claims) and a second model entity (called “another model entity” in the claims) belonging to a first hierarchy (called “the hierarchy” in the claims) and (2) a second hierarchical relationship between the first model entity and a third model entity belonging to a second hierarchy (called “another hierarchy” in the claims). With respect to the second hierarchical relationship, claim 8 recites “receiving a second indication of a second hierarchical relationship between the model entity and a third model entity belonging to the other hierarchy from the person via the interface and responding thereto by relating the model entity to the third model entity in

the other hierarchy.” Claim 20 recites similar limitations with respect to the second hierarchical relationship.

Petitioner contends Ito meets the claim limitation, because Ito discloses many hierarchical relationships between different model entities, and users can flexibly define relationships to create any number of hierarchies and provides examples. Pet 65 (citing Ex. 1007, col. 12, ll. 55–58; col. 8, ll. 45–51, Figs. 3(a)–3(h)); Reply 14 (citing Ex. 1007, col. 12, l. 55–col. 13, l. 40). For example, Petitioner explains that the product and process models in Ito, for example, include numerous hierarchical relationships as depicted in Figures 2, 3(a)–(f), and 4(a)–(c). Pet 65 (citing Ex. 1007, col. 5, l. 13–col. 60, l. 61). Petitioner reasons that Ito teaches that a model entity may belong to more than one hierarchy, therefore (first) model entities may have a hierarchical relationship with, for example, (second) entities in the “building model 1” hierarchy while having a second hierarchical relationship with (third) entities in the “product model.” Ex. 1007 at col. 4, ll. 60–67; *see also id.* at col. 2, ll. 16–25; col. 2, ll. 52–64; col. 10, l. 58–col. 11, l. 44; Abstract.

Patent Owner contests Petitioner’s reasoning and contends Ito only discloses that a user can change a relationship between hierarchies, but fails to disclose that a user receives a second indication of a second hierarchical relationship between the first model entity and a third model entity belonging to a second hierarchy as required in claims 8 and 20. Resp. 53. Patent Owner’s position is not persuasive. As Petitioner argued at the oral hearing, having knowledge or indications of the levels that exist within a hierarchy is a basic component of a hierarchy. Tr. 15:16. We agree. Based on the disclosure of the ’413 patent in order for “the functions and rules

defined in each object [to] enable the user to change a relationship defined in an object in the product model as desired in conformance with his own purpose” (Ex. 1007 at col. 12, ll. 55–58), the user must receive indications of the relationships between the model entities belonging to the hierarchies. Without knowledge (i.e., indications) of the relationship, a user would not know which relationships to change in order to conform to his purpose, thereby defeating the intent of Ito.

*e. Dependent Claims 9–19*

Claims 9–19 depend directly or indirectly from claim 8. We have reviewed the elements recited in claims 9–19. Claims 9 and 12 recite showing indications of hierarchies on an interface. Claim 10 recites that the hierarchy and the other hierarchy are different types of hierarchical relationships. Claims 11, 13–19 recite receiving increasing numbers of hierarchy indications. For reasons similar to those discussed above in regards to claim 8, we find claims 9–19 to be anticipated by Ito.

For the foregoing reasons, Petitioner has met its burden of proof and demonstrated by a preponderance of the evidence that claims 1–21 are anticipated by Ito.

*D. Contingent Motion to Amend the Claims is Denied*

Because we determine that claims 1–21 are unpatentable, we turn to Patent Owner’s contingent request to enter proposed substitute claims 22–30<sup>4</sup> as replacements for original claims 1–7, 20, and 21. Mot. to Amend. 1. Proposed independent claim 22, substituting for claim 1 and reproduced

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<sup>4</sup> Proposed amended claims 22, 28, and 29 are independent. Mot. to Amend. 1–5. Proposed amended claims 23–27 and 30 depend directly or indirectly from claim 22. *Id.*

below with underlining to indicate additions and strikethrough to indicate deletions relative to claim 1 of the issued '413 patent, recites:

22. A system for supporting management of a collaborative activity by a plurality of persons involved therein, the persons not being specialists in information technology, the system being implemented using a processor, and a non-transitory computer-readable storage device accessible to the processor, the system comprising:
- a representation of a model of the collaborative activity in the storage device, the model of the collaborative activity including model entities, the model entities providing access to information concerning the collaborative activity, being organized into a plurality of hierarchies having a plurality of types, and a given model entity ~~being~~ capable of simultaneously belonging to a first hierarchy having one of the types and a second hierarchy having another of the types, the first hierarchy neither containing nor contained in the second hierarchy; and
  - said processor being configured to provide and providing a graphical user interface to a person of the persons via at least one communication network for providing outputs to the person and responding to inputs from the person by performing operations on a model entity as limited by a type of access which the person has to the model entity,
  - the operations including controlling access to the model entity, creating, modifying, and/or deleting the model entity, assigning the model entity to a location in a hierarchy, accessing and/or modifying the information concerning the collaborative activity via the model entity, displaying and viewing model entities as ordered by a hierarchy to which the entities belong, and displaying and viewing model entities as ordered by a value in the information concerning the collaborative activity to which the entities give access.

During a covered business method patent review, a motion to amend may be denied when the amendment does not respond to a ground of unpatentability involved in the trial, seeks to enlarge the scope of the claims of the patent, or introduces new subject matter into the claims. 37 C.F.R. § 42.221(a)(2). A covered business method patent review is not a patent

examination proceeding or a patent reexamination proceeding. Like an *inter partes* review, a covered business method patent review is more adjudicatory than examinational in nature. *See, e.g., Abbott Labs. v. Cordis Corp.*, 710 F.3d 1318, 1326 (Fed. Cir. 2013). A proposed substitute claim, in a motion to amend, is not entered automatically and then examined. If a patent owner’s motion to amend is granted, the claim will be added directly to the patent, without examination. Therefore, we enter proposed amended claims only upon a showing by the Patent Owner that the amended claims are patentable. *See Idle Free Sys., Inc. v. Bergstrom, Inc.*, Case IPR2012–00027, slip op. at 33 (PTAB Jan. 7, 2014) (Paper 66).

A motion to amend is a motion under 37 C.F.R. § 42.20, and is subject to the requirements of that rule. The rule includes that “[t]he moving party has the burden of proof to establish that it is entitled to the requested relief.” 37 C.F.R. § 42.20(c). Thus, the Patent Owner as movant bears the burden to demonstrate patentability and compliance with 37 C.F.R. § 42.221. This burden may not be met merely by showing that the proposed claims are distinguished over the prior art references applied to the original patent claims. Instead, Patent Owner must show that the proposed substitute claims are patentable over the prior art in general. *See Idle Free Sys., Inc.*, Paper 66, at 33.

Patent Owner argues that the proposed substitute claims are supported by the disclosure in the ’413 patent and do not enlarge the scope of the original patent claims. Mot. to Amend. 6. Patent Owner also argues the proposed substitute claims are patentable over “the prior art known to the Patent Owner that is closest to the claimed invention,” which Patent Owner

identifies as Lowery, Ito, and Knoth.<sup>5</sup> *Id.* at 10. According to Patent Owner, the identified prior art fails to disclose “a model entity belonging to a first hierarchy of one type and a second hierarchy of a second type such that the first hierarchy neither contains or is contained in the second hierarchy,” as recited in proposed independent claims 22, 28, and 29. *Id.* at 10–11.

We are unpersuaded by Patent Owner’s arguments for multiple reasons. First, Patent Owner addresses neither the level of ordinary skill in the art nor the prior art known to Patent Owner, with respect to a particular feature it added to original patent claims to form the proposed substitute claims. Although Patent Owner is not expected to know of all pre-existing prior art, it is expected to indicate what it does know, particularly with respect to the feature it has proposed to add to the original patent claims, i.e., a model entity belonging to two different hierarchies, whether or not in combination with the rest of the claim elements. During oral argument, upon inquiry from the Board, counsel for Patent Owner acknowledged that non-overlapping hierarchies were well known in the art. Tr. 75:4–10, 76:5–8. Yet, the Motion provides no such information and does not discuss the applicability of such well known prior art from the perspective of one with ordinary skill in the art.

We note further that Patent Owner does not account for *relevant* prior art already contained in the record of this proceeding. Specifically, Patent Owner does not address Buteau<sup>6</sup> and Wood<sup>7</sup>, both of which disclose “a

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<sup>5</sup> Gwen Lowery, “*Managing Projects with Microsoft® Project 4.0 For Windows™ and Macintosh®*,” (Wiley & Sons, Inc., 1994) (Ex. 1005); J. Knoth, “*Tools for a Collaborative World*,” 16(4) *Computer-Aided Engineering* 38 (April 1997) (Ex. 2012).

<sup>6</sup> U.S. Patent No. 6,444,557.

model entity belonging to a first hierarchy of one type and a second hierarchy of a second type such that the first hierarchy neither contains [n]or is contained in the second hierarchy,” as recited in proposed independent claims 22, 28, and 29.

Lastly, Patent Owner proposes amending the claims to include limitations, such as a non-transitory computer-readable storage device, and a communication network, in order to clarify that the ’413 patent is directed to a specially programmed machine, and thus, is not an abstract idea. Mot. to Amend 6; Reply to Pet. Opp. ¶ 9. As explained above (*see* Section II.B.2), the addition of a limitation regarding generic computer devices does not limit the claims sufficiently or add concrete ties to make the claims less abstract. *See Alice*, 134 S. Ct. at 2358-58; *Accenture Global Servs.*, 728 F.3d at 1344–45. Patent Owner’s proposed amendments are not specific and do not tie the claims to a concrete apparatus or method; rather, the added limitations are superficial and generic. Thus, Patent Owner has not shown patentability under 35 U.S.C. § 101.

For all of the foregoing reasons, Patent Owner has not met its burden of showing the patent eligibility and patentability of the proposed substitute claims 22 – 30 over the prior art. Due to the deficiencies in Patent Owner’s Motion, we need not and do not consider the Opposition.

Accordingly, the contingent Motion to Amend is *denied*.

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<sup>7</sup> U.S. Patent No. 5,381,332.

### III. CONCLUSION

We conclude Petitioner has proven, by a preponderance of the evidence, that:

- (1) Claims 1–21 of the '413 patent are unpatentable under 35 U.S.C. § 101; and
- (2) Claims 1–21 of the '413 patent are unpatentable under 35 U.S.C. § 102 over the disclosure of Ito.

Additionally, Patent Owner has not shown it is entitled to entry of its proposed substitute claims 22–30.

### IV. ORDER

For the reasons given, it is hereby:

ORDERED that Petitioner has established by a preponderance of the evidence that claims 1–21 of the '413 patent are unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Amend Claims is *denied*;

FURTHER ORDERED that because this is a final written decision, parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

CBM2013-00024  
Patent 8,095,413 B1

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