UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INTERTHINX, INC.
Petitioner

v.

CORELOGIC SOLUTIONS, LLC
Patent Owner

Case CBM2012-00007
Patent 5,631,201


McNAMARA, Administrative Patent Judge.

DECISION
Institution of Covered Business Method Review
37 C.F.R. § 42.208
BACKGROUND

Pursuant to 35 U.S. C. § 321 and § 18 of the America Invents Act (AIA), Interthinx (Petitioner) requests that the Patent Trial and Appeal Board initiate a Transitional Post-Grant Review Proceeding for a Covered Business Method Patent to review of claims 1, 5, 6, 9 and 10 (the challenged claims) of U.S. Patent 5,631,201 (the ‘201 Patent). We have jurisdiction under 35 U.S.C. §§ 6(b)(4) and 324. The standard for instituting a Transitional Covered Business Method Proceeding is the same as that for a Post-Grant Review. (§ 18(a)(1) of the AIA). The standard for instituting Post-Grant Review is set forth in 35 U.S.C. § 324(a), which provides:

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 [35 U.S.C. §] 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.

We conclude that Petitioner has satisfied this threshold.

Petitioner contends that pursuant to 37 CFR §§ 42.301 and 42.304(a) the ‘201 Patent meets the definition of a covered business method patent and does not qualify as a technological invention. (Pet. 5-7).  Petitioner further contends that claims 1, 5, 6, 9 and 10 all fail to comply with the patentable subject matter requirements of 35 U.S.C. § 101 (Pet. 13-20) and that the challenged claims are
invalid under 35 U.S.C. §§ 102 - 103 for the following reasons outlined in the
Petition (Pet. 20-80):

1. Claims 1, 5, 9, and 10 should be cancelled under 35 U.S.C. § 102(a)
   for anticipation by Tay et al., “Artificial Intelligence and the Mass
   Appraisal of Residential Apartments,” 10 Journal of Property
   (Interthinx Exhibit 1007, “Tay”).

2. Claim 6, and, to the extent that they are not cancelled for anticipation
   by Tay, claims 5, 9, and 10 should be cancelled under 35 U.S.C. § 103
   as obvious in view of Tay.

3. Claims 1, 5, 6, 9, and 10 should be cancelled under 35 U.S.C. § 102(a)
   as anticipated by Lu et al., “Neurocomputing Approach to Residential
   Property Valuation,” 4 Journal of Microcomputer Systems

4. To the extent that they are not cancelled for anticipation by Lu,
   Claims 5, 6, 9 and 10 should be cancelled under 35 U.S.C. § 103(a) as
   obvious in view of Lu.

5. Claims 1, 5, 9, and 10 should be cancelled under 35 U.S.C. § 102(b)
   as anticipated by Boyle, “An Expert System for Valuation of
   Residential Properties,” 2 Journal of Property Valuation and
   Investment 271 – 286 (1984) (“Boyle”) (Interthinx Exhibit 1009,
   “Boyle”).

6. Claim 6, and, to the extent that they are not cancelled for anticipation
   by Boyle, claims 5, 9, and 10 should be cancelled under 35 U.S.C.
   § 103(a) as obvious in view of Boyle.

7. Claims 1, 5, 9, and 10 should be cancelled under 35 U.S.C. § 102(b)
   as anticipated by Jensen, “Artificial Intelligence in Computer-Assisted
   Exhibit 1010, “Jensen-2”).
8. Claim 6, and, to the extent that they are not cancelled for anticipation by Jensen-2, claims 5, 9, and 10 should be cancelled under 35 U.S.C. § 103(a) as obvious in view of Jensen-2 alone.


10. Claim 6, and, to the extent that they are not cancelled for anticipation by Carbone, claims 5, 9, and 10 should be cancelled under 35 U.S.C. § 103(a) as obvious in view of Carbone.


12. Claim 6, and, to the extent that they are not cancelled for anticipation by Des Rosiers, claims 5, 9, and 10 should be cancelled under 35 U.S.C. § 103(a) as obvious in view of Des Rosiers.

13. Claims 1, 5, 9, and 10 should be cancelled under 35 U.S.C. § 102(b) as anticipated by Eckert et al., “Property Appraisal and Assessment Administration,” The International Association of Assessing Officers (June 1990) (Interthinx Exhibit 1013, “Eckert”).

14. Claim 6, and, to the extent that they are not cancelled for anticipation by Eckert, claims 5, 9, and 10 should be cancelled under 35 U.S.C. § 103(a) as obvious in view of Eckert.

16. To the extent that they are not cancelled for anticipation by Jensen-1, claims 5, 6, 9, and 10 should be cancelled under 35 U.S.C. § 103(a) as obvious in view of Jensen-1.

CoreLogic Solutions, LLC (the Patent Owner) was previously known as Corelogic Information Solutions, Inc. (Pet. 2; Ex. 2007, p. 16). Generally, the Preliminary Response of the Patent Owner (Response), timely filed on January 2, 2013, contends that the ‘201 Patent is not a covered business method patent, is not invalid under 35 U.S.C. § 101, that Petitioner has applied the wrong claim construction standard because the ‘201 patent expired on October 29, 2012, and that the assertions in the Petition For Post-Grant Review under 35 U.S.C. §§ 321 and 18 of the AIA (the Petition) are not supported by evidence. (Response 1-2).

PENDING LITIGATION

A person may not file a petition for a Transitional Program for Covered Business Method Patents unless the person or the person’s real party in interest or privy has been sued for infringement or has been charged with infringement under that patent. (§18 (a)(1)(B) of the AIA). The ‘201 Patent is the subject of a jury verdict rendered on September 28, 2012 and a judgment entered in CoreLogic Information Solutions, Inc. v. Fiserv, Inc. et al, No. 2;10-CV-132-RSP (E.D. Tex. Oct. 2, 2012). Among other things, the District Court entered judgment in favor of
CoreLogic rejecting Petitioner’s claim that patent claims 1 and 10 of the ‘201 patent are invalid as anticipated or obvious. (Ex. 2006). Several days earlier, on September 23, 2012, the District Court denied Defendant’s Motion for Summary Judgment That The Patent-In-Suit [the ‘201 Patent] is Invalid Under 35 U.S.C. § 101. (Ex. 2003). Among the post-trial motions currently pending before the District Court are Petitioner’s Motion for Judgment As a Matter of Law that claims 1 and 10 of the ‘201 patent are invalid under 35 U.S.C. § 102 and/or § 103 and Petitioner’s Motion for Judgment As a Matter of Law that the ‘201 patent is invalid under 35 U.S.C. § 101. The District Court has not ruled on these motions.

EFFECT OF PATENT OWNER’S STATUTORY DISCLAIMER


The Patent Owner contends that Petitioner’s arguments concerning whether the ‘201 patent satisfies the threshold criteria for instituting a covered business method (CBM) proceeding are based on claim 5 and that there is virtually no
analysis of the other claims. (Response 13). Having disclaimed claim 5, the Patent Owner asserts that the basis for instituting a CBM proceeding is now moot.

Using the term “for example” the Petition discusses claim 5 as illustrative of the challenged claims. (Pet. 6). Noting that claim 5 “is directed to a process for appraising a real estate property” and recites a series of steps that culminate in the step of “generating a signal indicative of an appraised value for the real estate property” the Petition specifically states that “[o]ther claims of the ‘201 Patent are of a similar nature.” (Id.). Indeed, this same language from claim 5 is recited in challenged claims 1, 6 (which depends from disclaimed claim 5, but is not itself disclaimed), 9 and 10 (which depends from claim 9). The Patent owner has not disclaimed any of these challenged claims. In addition, the Petition includes sixty pages of claim charts specifically addressing claims 1, 5, 6, 9, and 10. (Pet. pp. 20-80). Thus, we conclude that Patent Owner’s post expiration disclaimer of claim 5 does not moot the basis for instituting a CBM proceeding in this case.

RES JUDICATA AND COLLATERAL ESTOPPEL


The Patent Owner argues that because Petitioner advanced an unsuccessful counterclaim under §102 and § 103, Petitioner may not re-litigate issues that were or could have been raised in the District Court. (Response 29). However, the Patent Owner does not indicate what specific invalidity issues were tried or whether the references cited in the Petition were subjects of the litigation. Petitioner’s amended counterclaim in the District Court alleged that each of the claims of the '201 patent to be invalid for failure to meet the conditions for patentability specified in 35 U.S.C. §§ 101, 102, 103 and 112. (Ex. 2009, p. 15). There was no jury verdict rendered or judgment entered on infringement or validity concerning claims 5, 6, 9, and 10, which are also the subject of the Petition. The absence of space on the verdict form the District Court provided the jury indicates that these claims were not tried and that res judicata does not apply to these claims.

In addition, the jury verdict in the District Court indicates that Petitioner did not prove by clear and convincing evidence that claim 1 or claim 10 of the '201 patent was invalid. (Ex. 2005, p.1). Under the standard of proof applicable to this proceeding, Petitioner has the burden of proving a proposition of unpatentability by a preponderance of the evidence. 35 U.S.C. § 326(e). Because unpatentability has not been litigated under a preponderance of the evidence
standard, res judicata does not apply to the Petition’s challenges to patentability of the claims under 35 U.S. C. §§ 102 and 103. See, In re Baxter international, Inc., 678 F.3d 1357 (Fed Cir. 2012), In re Swanson, 540 F. 3d 1368, 1377 (Fed. Cir. 2008).


The Petition in this case was accorded a filing date of September 19, 2012, several days earlier than the District Court’s denial of Petitioner’s summary judgment motion of invalidity under 35 U.S.C. § 101. Patent Owner argues that collateral estoppel precludes Petitioner from raising issues under 35 U.S.C. § 101 in this Petition, citing Restatement § 27 for the proposition that when an issue of law or fact is actually litigated and determined by a valid and final judgment and the determination is essential to the judgment, collateral estoppel (or issue preclusion) applies. (Response 22). Citing In re Freeman, 30 F.3d 1459, 1465 (Fed. Cir. 1994), the Patent Owner notes that one of four factors relevant to collateral estoppel is whether resolution of the issue was essential to a final judgment in the first action. (Response 22).

“[F]or purposes of issue preclusion ..., ‘final judgment’ includes any prior adjudication of an issue in another action that is determined to be sufficiently firm to be accorded conclusive effect.” Christo v. Padgett, 223 F.3d 1324, 1339 n. 47
(11th Cir. 2000) (citing Restatement (Second) Judgments § 13 (1980)). See also, RF Delaware, Inc. v. Pacific Keystone Technologies, Inc., 326 F. 3d 1255 (Fed. Cir. 2003). On October 31, 2012, the Petitioner filed a Motion for Judgment as a Matter of Law that the ’201 patent is invalid under 35 U.S.C. § 101 (Petitioner’s § 101 JMOL). The Patent Owner filed a Response In Opposition on November 19, 2012, Petitioner filed a Brief in Reply to the Response In Opposition on December 4, 2012 and Patent Owner filed a Sur-Reply on December 14, 2012. The District Court has not ruled on Petitioner’s § 101 JMOL nor has any appeal been filed or decided. For a judgment to be “final” for purposes of preclusion before the Board, the decision needs to be immune, as a practical matter, to reversal or amendment. See, e.g., Vardon Golf Co., Inc. v. Karsten Mfg. Corp., 294 F.3d 1330, 1333 (Fed. Cir. 2002) (citing Miller Brewing Co. v. Jos. Schlitz Brewing Co., 605 F.2d 990, 996 (7th Cir. 1979). Thus, we cannot conclude that the District Court’s adjudication of the issues under 35 U.S.C. § 101 by a summary judgment order, which issued without an opinion, is sufficiently firm to be given conclusive effect.¹

¹ The same is true for issues under 35 U.S.C. §§ 102 and 103, where similar motions are pending before the District Court.
EVIDENTIARY SUPPORT/HEARSAY

The Patent Owner argues that Petitioner’s prior art is unsupported by evidence because Petitioner provides no authentication evidence and does not prove that the references constitute prior art. (Response 29-30). The Patent Owner admits that the references contain date information but argues that there is no evidence the references were publicly available on such dates. (Id.). In addition, referring to Exhibits 1007 and 1009, Patent Owner states that the documents contain more than one date, rendering date information unreliable. (Id.).

The documents referenced by the Patent Owner purport to be printed material from periodicals, which are self-authenticating. FRE 902(6). The second dates on the documents mentioned by the Patent Owner appear to refer to secondary sources from which Petitioner obtained the document and do not necessarily contradict the original dates of publication in the relevant periodicals. In the event that the Patent Owner later raises significant doubt about whether the documents were available to the public on the dates indicated or do not constitute prior art, during trial the Patent Owner may have an opportunity to move for limited discovery concerning the veracity of the documents. In the absence of evidence casting doubt on the reliability of these self-authenticating documents, it is premature for us to conclude that Petitioner cannot rely on these documents as prior art.
THE INVENTION OF THE ‘201 PATENT

All of the challenged claims are drawn to “A computer implemented method for appraising a real estate property.” Noting that traditional statistical techniques such as multiple linear regression and logistical regression have been tried in the past, the ‘201 patent identifies uncertainty as to the optimal temporal and geographical sample size among the difficulties of applying a regression model to the appraisal problem. (Col 1, l. 56 - col. 2, l. 16). The ‘201 patent addresses these problems with a model development component and a property valuation component. (Col. 6, ll. 4-6). Using predictive modeling techniques, such as neural networks and regression modeling, the model development component uses training data describing a number of real estate properties, characteristics and prices to build models containing information representing learned relationships among a number of variables and to develop error models, which are typically regression models, to estimate error in predicted sales prices. (Col. 6, ll. 2-22). The property valuation component feeds input data describing the subject property and its geographic area to the neural network models and error models to generate price estimates, error ranges and other codes to be output to a display device or printer or database for future access. (Col. 6, ll. 23-30).

With the construed terms indicated by italics, claim 1 recites:
A computer implemented method (which does not require a general purpose
computer and does not exclude human interaction or input) for appraising a real
estate property, comprising the steps of:

- collecting training data (data which is available regarding real estate
  properties);
- developing a predictive model (which is not limited to a neural network and
does not exclude a regression model) from the training data (data which is
available regarding real estate properties);
- storing the predictive model (which is not limited to a neural network and
does not exclude a regression model);
- obtaining individual property data for the real estate property;
- developing an error model (a model that estimates error in the predicted
  sales price of the subject property generated by the predictive model) from the
training data (data which is available regarding real estate properties);
- storing the error model (a model that estimates error in the predicted sales
price of the subject property generated by the predictive model) ; and
- generating a signal indicative of an error range for the appraised value
responsive to the application of the individual property data to the stored error
model (a model that estimates error in the predicted sales price of the subject
property generated by the predictive model).
We do not consider claim 5 because the Patent Owner’s disclaimer operates to effectively cancel claim 5.

Claim 6, which depends from disclaimed independent claim 5 and incorporates all the limitations of claim 5, differs from claim 1 in several ways. Claim 6 limits the training data to individual property training data describing past real estate sales which is aggregated into area training data sets describing a plurality of sales within a geographic area. The aggregating step is repeated using successively larger geographic areas until the number of sales within the geographic area over a predetermined time period exceeds a predetermined number. Another important difference between claims 1 and 6 is that claim 6 does not recite an error model.

Claim 9 differs from claim 1 by reciting the selection of a geographic area surrounding the real estate property and obtaining area data for the geographic area. Claim 9 also does not recite an error model.

Claim 10 depends from claim 9 and recites the same steps of developing an error model and generating a signal indicative of an error range that are recited in claim 1.
CLAIM CONSTRUCTION

Petitioner noted that five disputed claim terms were construed by the District Court and proposed that the District Court’s constructions be treated as the broadest reasonable constructions solely for purposes of this review proceeding. (Pet. 13). Although the ‘201 patent was in effect on Petitioner’s filing date, the Patent Owner contends that Petitioner applied the wrong claim construction standard (broadest reasonable construction) because the '201 patent has now expired. (Response 2, 28). Arguing that Petitioner has failed to meet its burden, the Patent Owner proposes no alternative constructions. (Id).

The Board’s review of the claims of an expired patent is similar to that of a district court’s review. In re Rambus, Inc., 694 F.3d 42, 46 (Fed. Cir. 2012). The principle set forth by the court in Phillips v. AWH Corp., 415 F.3d 1303, 1316 (Fed. Cir. 2005) (words of a claim “are generally given their ordinary and customary meaning” as understood by a person of ordinary skill in the art in question at the time of the invention) should be applied since the expired claims are not subject to amendment. Petitioner points out that the District Court construed three of the five disputed claim terms to have their plain and ordinary meaning, although they are somewhat qualified for context. (Pet. 13). The District Court construed the remaining two terms to have a meaning in the context of real estate appraisal, which is the subject matter of the ‘201 patent. We have reviewed
the district court’s claim construction and hold that they are consistent with the ordinary and customary meaning as understood by one of ordinary skill in the art.

Accordingly, we adopt the District Court’s claim constructions as follows:

<table>
<thead>
<tr>
<th>Claim Term</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>“computer-implemented process”</td>
<td>Plain and ordinary meaning, which does not require a general-purpose computer and which does not exclude human interaction or input.</td>
</tr>
<tr>
<td>“training data”</td>
<td>Data which is available regarding real estate properties</td>
</tr>
<tr>
<td>“developing/development”</td>
<td>Plain and ordinary meaning</td>
</tr>
<tr>
<td>“predictive model”</td>
<td>Plain and ordinary meaning, which is not limited to a neural network and which does not exclude a regression model.</td>
</tr>
<tr>
<td>“error model”</td>
<td>Model that estimates error in the predicted sales price of the subject property generated by the predictive model.</td>
</tr>
</tbody>
</table>

THE ‘201 PATENT IS NOT A PATENT FOR A TECHNOLOGICAL INVENTION

Petitioner notes that real estate appraisal is a financial product or service and that because the ‘201 patent identifies reduction of human bias in conventional appraisal methods as the problem and the use of statistical techniques as the solution, the patent does not solve a technical problem using a technical solution. (Pet. 6-7).
Citing 37 C.F.R. § 42.301(b), the Patent Owner contends that the technological nature of the ‘201 Patent places it outside the definition of a covered business method because the claimed subject matter as a whole recites a technical feature that is novel and non-obvious over the prior art and solves a technical problem using a technical solution. (Response 14). The Patent Owner argues that because the ‘201 patent provides a specific automated system using predictive models such as neural networks to address prior art problems, including those found with statistical techniques, and to generate estimates of real estate values, both the problem and the solution are technical. (Response 17).

As threshold matter, we are not persuaded that the ‘201 Patent solves a technical problem. The claims are all drawn to a process for appraising a real estate property. The Patent Owner has not demonstrated that appraising real estate is a technical problem. The Patent Owner notes that the ‘201 Patent explains that traditional statistical techniques have been tried to overcome problems associated with human appraisers, but that those solutions experienced problems such as difficulty implementing automated model redevelopment. (Id.). Difficulty implementing an automated or technical solution to a problem that is not technical does not transform that non-technical problem into a technical one. Here the problem is appraising a real estate property accurately, which remains a non-technical problem.
We are also not persuaded that the solution is a technical one. The Patent Owner contends that the claims of the ‘201 Patent are closely tied to a machine, just like the CBM-ineligible claims at page 37 of the Office Patent Trial Practice Guide (Trial Guide). (Response 19). The Trial Guide, which distinguishes between CBM eligible methods, such as a method for validating a credit card transaction, and patents that claim a CBM ineligible device, such as a novel and non-obvious credit card reader for verifying the validity of a credit card transaction, does not support Patent Owner’s position. The Trial Guide specifically states that mere recitation of known technologies such as computer hardware or specialized machines would not typically render a patent a technological invention. (Trial Guide 36). The challenged claims are all drawn to a “computer implemented method for appraising real estate property.” We conclude that the mere recitation that the method is computer implemented or that the process is automated, using known techniques such as storing information, does not preclude the patent from qualifying as a covered business method patent.

Similarly, we are not persuaded by the Patent Owner’s contention that the Examiner’s statements in the April 4, 1994 Notice of Allowability recognized the claimed predictive model as structure and thus technological. (Response 16). The portion of the Notice of Allowability quoted by the Patent Owner merely indicates that a computer implemented process for carrying out the appraisal of real estate
property where the predictive model is used as set forth in the claims is structurally supported and defined in the specification as a neural network. (Ex. 2001, p. 3). The Examiner does not state that the predictive model itself is structure, nor does the Examiner indicate that the computer implemented process using a predictive model as claimed solves a technical problem using a technical solution. The Examiner’s statement indicates that the computer implemented process is a process for carrying out the appraisal of real estate, which is not a technical problem. As discussed above, the mere implementation of the process using known technologies does not preclude the patent from qualifying as a covered business method patent. Thus, we conclude that the ‘201 patent is a covered business method patent.

ART CITED IN THE PETITION

Petitioner cites the following references to support its contentions that the claims of the ‘201 patent should be found invalid. Petitioner’s specific contentions with respect to the challenged claims are found in Tables 1-16 of the Petition.

Tay (Exhibit 1007)

Tay discloses applying an artificial neural network (ANN) to the valuation of residential apartments and compares the performance of a back propagation (BP) model in estimating sales prices of apartments against a traditional
multiple regression analysis (MRA) model. (p. 525). Applied to a data set of
1,055 apartments in four prime and three semi-prime residential districts in
Singapore, Tay discloses dividing the data into a training set of 833 properties for
building the BP and MRA models and a test set of 222 properties for testing the
estimation performance of the two models. (Id., 529). Tay’s ANN model has an
input layer, which accepts a normalized input vector containing 10 property
attributes and a bias node, a hidden layer with additional nodes and an output layer
with an output node that provides the estimated sales price. (pp. 526, 529-30).
Some of the key attributes in Tay’s real estate sales appraisal model include floor
level, built in floor area, postal district number and the type of apartment. (p. 529).
Interconnections between the input-to-hidden layers and the hidden-to-output
layers are represented by weight matrices. (p. 531).

During training Tay’s model initially outputs an estimated sale price using a
“forward pass” procedure. (p. 532). The forward pass procedure compares the
estimated sale price with the normalized actual sales price and generates an error
signal, which is accumulated over the 832 training vectors following the initial one
to obtain the mean error signal per input vector epoch. (p. 532). Tay then uses a
“backward pass” procedure which, based on the mean error signal per input vector
per epoch, automatically applies a weight correction to all the connections in the
hidden-to-output weight matrix and subsequently changes the weights in the input-
to-hidden matrix. (p. 533). This recursive process of using the weight matrices to compute the estimated sales prices in the forward pass and self-adjusting the weights in the backward pass terminates when the root mean square error at the output node falls below a predetermined tolerance level or converges to a minimum. (Id.).

Lu (Exhibit 1008)

As an alternative to a rule based expert system for appraising real estate disclosed by Lu and Mooney in 1989, in this reference Lu applies neurocomputing to assess residential properties for tax purposes. (p. 23-24, 29). Lu discloses that neural networks can be used alone or integrated with other information processing systems, including expert systems. (p. 22-23). Like Tay, Lu discloses that a neural network can be trained by a training set containing a number of training cases and that the network attempts to minimize the magnitude of errors between the actual output and the expected output by changing interconnection weights between processing elements over a network of interconnects. (p. 22). After a network training session was completed, the characteristics of houses in the testing set were fed into the network and estimated sales prices were generated by the network. (p. 25). Initially, data for homes sold in last 24 months in a particular section of the city were collected. (p. 24). Eventually, data for a total of 336 cases
were collected from a population of 700 homes sold in the entire city over two years. Homes sold in the first 18 months were used to train the network and homes sold in the last 4 months (36 cases) were used to test the network. (Id.). Lu provides tables of sales prices and error statistics for the 36 properties tested in Tables 1 and 2. (p. 25-28).

Boyle (Exhibit 1009)

Boyle discloses additive and multiplicative models for determining the market price of property using attributes, such as age, the number of bedrooms and square feet of floor area, weighed by “rates” (otherwise known as regression coefficients) validated using known multiple regression analysis (MRA) techniques. (p. 4, 8). Boyle also discloses coding the data based on location using a Trend Surface Analysis to produce a price contour map to describe variations within the location. (p. 7-10). After the information is entered a computer calculates the predicted selling price by applying the rates for each factor found using the MRA. (p. 9, 11). Boyle also calculates a standard error of £3,723 indicating that the model can be expected to predict prices to within £2,400 more often than not and the maximum likely error is about £7,500. (p. 8)

Jensen-2 (Exhibit 1010)
Jensen-2 discloses a table driven Computer Assisted Mass Appraisal (CAMA) system referred to as MOD-PRO II which has a Table Create Phase and a Model Generate Phase. (p. 9). In Jensen-2, a variable descriptions table describes each property descriptor in the database. (p. 11). An initiator creates a parcel selection control parameters file containing selection criteria for the parcel data to be extracted from a relational database. (p. 18). A market interface module merges the property descriptors from the various relational tables into a single-record-per-parcel in a format suitable for subsequent input into a MOD-PRO II. A sales analysis initiator uses the variable descriptions stored in the market data file to perform a preliminary sales analysis on every variable and classification as a candidate for subsequent modeling. (p. 18). Sales analysis is performed using the sales data from the market data file and the analysis instructions from the MOD-PRO tables created by the sales analysis initiator to create statistics for every defined classification and create a matrix of coefficients for each pairwise combination of candidate variables. (p. 19). A model initiator uses model codes from the variable descriptors table qualified by the distribution statistics from the preliminary sales analysis to generate algorithmically the MOD-PRO II table entries that direct MOD-PRO II to perform an initial regression modeling using the linearized general market model formulation. (Id.). MOD-PRO II then performs the initial regression modeling using the sales data from the market data file.
created by the market interface and analysis instructions from the MOD_PRO table file created by the model initiator to generate and store a market model and its attendant statistics for subsequent retrieval and evaluation. (p. 21). A model evaluator checks the data in the model for predictive accuracy and identifies corrective action, such as transforming the response (sale price) to restore residual error normality. (p. 21). The corrective actions involve modifying modeling instructions and performing model refinement by repeating regression modeling using updated sets of MOD-PRO tables and the market data file from the market interface. (p. 22). Model refinements are repeated iteratively until the final model meets statistical performance criteria. (p. 23). The market model is then passed on to a valuation module where it is used to estimate the current sales price of the subject parcels to be valued. (p. 23).

Carbone (Exhibit 1011)

Carbone discloses a feedback model for automated real estate assessment in a mass appraisal environment to generate estimates of fair market value as a function of objectively measurable property characteristics. (p. 241). Carbone teaches that an estimated value at a time $t$ computed using parameters effective at time $t-1$ without reference to the transaction value almost certainly deviates from the observed transaction value by a certain amount (p. 244). Using an exponential
smoothing scheme, the deviation is then used to correct the parameters of the equation with the resulting updated estimates providing a new set of parameters for the period $t$. *(Id.)* This is used at the time of the next sale information $t+1$ to cause a further correction. *(Id.)* This process continues in the same fashion as properties are transacted over time. *(Id.)* The corrective force is primarily based on percentage error, which dampens the updating process so that only small adjustments are made to the equations for calculating the present selling price of the property with each new property sale observation. *(Id.)*

**Des Rosiers (Exhibit 1012)**

Des Rosiers discloses the integration of a geographic information system (GIS) with hedonic (MRA) modeling for mass real estate appraisal purposes in a model that uses a large number of independent variables (housing characteristics). *(pp. 30, 31).* Des Rosiers discloses integrating three submodels in the GIS – the QUC (Quebec Urban Community) bungalow model, the Quebec-St. Foy condominium model and the City Of Beauport model. Des Rosiers uses zoom capabilities to adjust map extent according to data distribution to check for relationships at the local level, such as a strong positive relationship between prices in the woodland park areas located along the Saint Lawrence shoreline and areas in which manufacturing is located having a strong negative effect of model residuals.
Des Rosiers discloses that due to the large data set in the bungalow model, a need arose to inspect data at the local level to find environmental factors and calibrate sale price expectations, which resulted in a sale price model for the Charlesbourg area that is quite different from the St. Foy area where bungalows are more widespread and prices change considerably. (pp. 43-45).

**Eckert (Exhibit 1013)**

Eckert discloses that the valuation portion of a mass appraisal system uses information maintained in a sales analysis and data management component to produce output valuations required to produce tax bills. (pp. 305-306). Property characteristics data are used in the valuation system to conduct research and to generate values, and in the sales analysis system to stratify properties for ratio studies and identify and list comparable sales. (p. 306). The valuation system includes mass appraisal applications of the sales comparison application, cost and income approaches to value. (p. 307). Sales comparison applications include multiple regression analysis, adaptive estimation procedures or feedback and automated comparable sales analysis. *(Id.*). Eckert explains that the objective of MRA, as applied to mass appraisal, is to model the relationship between the property characteristics and value, so that the latter can be estimated from the former. (p. 368). Data can be profiled, for example by square feet or year built,
and measures of central tendency and dispersion by stratum can be summarized, for example as shown in Table 3 which displays average sales prices of single family houses by neighborhood. (p. 327).

Eckert further discloses an equation for computing a standard error of the estimate (SEE), which is a dollar figure that measures the amount of deviation between actual and predicted sales prices. (p. 373). Eckert further notes that regression software often provides an option to calculate standard errors and confidence intervals for individual predicted values, which are a function of the overall SEE and the individual characteristics of a parcel. (p. 374).

Jensen-1 (Exhibit 1014)

Jensen-1 discloses that in a computer-assisted mass appraisal system, conventional multiple linear regression analysis functionally relates recorded sales prices to various property descriptors by best fitting a linear multivariate model in which the estimated sale price is determined by the summation of property descriptors multiplied by weighting coefficients. The coefficients of the model are determined such that the sum of the squared deviations of the predicted sale price from the recorded values of the sale price (the residual errors) is minimized or the chance that the estimators are the most probable is maximized. (p.194). The resulting model is then used to directly or indirectly estimate the sales prices as
indicators of the fair market value of all of the properties based on their respective property characteristics. (Id.). Jensen-1 generally introduces the mathematical and statistical foundations of the more prevalent modeling alternatives. (p. 195).

Jensen-1 discloses that sales from a two or three-year period ending with the current year are used to obtain an initial valuation model. (p. 228). Jensen notes that model estimates are analogous to mean values since the model represents the mean trend through the available sales. (p.225). In order to establish reliability factors and enable evaluation of low actual sales Jensen describes two kinds of thresholds, and provides Equations 58 and 59 to calculate a true value limit and an expected value limit, which bands the expected individual sale price. (Id.). These thresholds define two confidence bands that can be computed within the multiple linear regression procedure, but which cannot be computed when using an adaptive estimation procedure or iterative correlative estimation procedure. (pp. 225-226).

PATNET OWNER’S RESPONSE CONCERNING THE REFERENCES CITED IN THE PETITION

The Patent Owner responds only to Petitioner’s citation of the Boyle, Jensen-2 (1990) and Jensen -1 (1987). (Response 31-38). Patent Owner provides no response to Petitioner’s citation of Tay, Lu, Carbone, Des Rosiers, or Eckert. The Patent Owner asserts that the expert testimony of Dr. Lipscomb cited by the Petitioner demonstrates that, although Boyle appears to disclose a predictive
model, Boyle does not anticipate and render obvious any of the claims of the '201 patent because, as an expert system, Boyle fails to teach an Automated Valuation Model. (Response 32-33). The testimony of Dr. Lipscomb cited by the Patent Owner does not explain why an expert system incorporating a predictive model, would not satisfy the limitations of claim 1, 6, 9 and 10. The Patent Owner also cites Dr. Lipscomb's testimony that Boyle does not disclose an error model as described by the '201 patent. (Response 33). The testimony cited by the Patent Owner does not include an explanation of how Dr. Lipscomb concluded that an error model is missing from Boyle. (Id.).

Again citing Dr. Lipscomb, the Patent Owner contends that Jensen-2 (1990) does not teach obtaining individual property data for the real estate property, as claimed, because Jensen-2 (1990) teaches a computer-assisted mass appraisal (CAMA) system which values numerous properties simultaneously for tax assessment purposes, instead of automatically valuing one property at a time for valuation purposes. (Response 34-35). Given the different objectives of a CAMA and AVM system, Petitioner cites Dr. Lipscomb’s testimony that it would not be obvious to take a specific property that had not been run through a CAMA and uses characteristics to determine its values through the CAMA system. (Response 35). Notwithstanding the different objectives of the systems, Dr. Lipscomb does not address the fact that assessment agencies issue a real
property assessment for each individual property or explain why valuing real property for tax assessment purposes is different from valuing real property for some other purpose.

Citing Dr. Lipscomb’s similar testimony that Jensen-1 (1987) discloses a CAMA rather than an AVM model, the Patent Owner also argues that it would not be obvious to add an error model to the prior art. (Response 36-37). Referring to Equations 58 and 59, Dr. Lipscomb states that it is unclear from Jensen-1 (1987) that they deal with the error around the predicted sale price. (Response 36). The testimony cited by the Patent Owner does not address this issue in detail nor does it address the discussion in Jensen-1 of banding the expected individual sales price.

ANALYSIS OF PETITIONER’S PRIOR ART CHALLENGES

Because the Patent Owner has disclaimed claim 5, we do not consider the challenges to claim 5 and address only Petitioner’s prior art challenges to claims 1, 6, 9, and 10.

Anticipation By Tay

Petitioner has not demonstrated it is more likely than not that claims 1 and 10 are anticipated by Tay. Tay appears to illustrate a neural network implementation of a predictive model for determining the value of real property. It is not clear that the subject matter in Tay cited by Petitioner literally meets the
limitations of developing an error model from the training data and generating a
signal indicative of an error range for the appraised value responsive to application
of the individual property data to the stored error model of claim 1. Petitioner
notes that in Tay an estimated sales price is produced at the output node and is
compared with a normalized sale price to generate an error signal for the training
vector. (Pet. 22). Because the first instance of this particular error signal is for the
training vector and is accumulated 832 more times for the remaining training
vectors, this error signal appears to be part of the predictive model development,
rather than a model that estimates the error in the predicted sales price generated
by the predictive model for the subject property. The backward pass weight
correction, which is automatically applied backwards to all connections in the
weight matrix, also appears to be part of developing the predictive model. We
note that the training data used in developing the predictive model is construed to
mean data which is available regarding real estate properties and therefore the
training data could include the claimed “individual property data for the real estate
property.” In this case, an error signal would be generated from the individual
property data for the real estate property as part of developing the predictive
model. However, limitation [h] of claim 1 and the corresponding limitation in
claim 10 recite generating a signal indicative of an error range for the appraised
value responsive to the application for the individual property data to the stored
error model. We interpret “responsive to the application of the individual property
data to the stored error model” to be an application other than use of the individual
property data for the real estate property as training data to develop the predictive
model, which is claimed as a separate step. Therefore, we find that Petitioner has
not demonstrated that claims 1 and 10 are more likely than not anticipated by Tay.

Claim 9 does not recite an error model, but is limited to selecting a
geographic area surrounding the real estate and obtaining area data for the
geographic area. Tay discloses apartments being studied in four prime and three
semi-prime residential districts. (Pet. 24). Because we find that the disclosure in
Tay is cumulative to the disclosure in other references identified in the Petition, we
deny the Petition with respect to its assertions under 35 U.S.C. § 102 concerning
Tay.

**Obviousness Over Tay**

The use of the individual property data among the training data to generate
an error signal in developing the predictive model suggests that developing an
error model and generating a signal indicative of an error range for the appraised
value would have been obvious to a person of ordinary skill in the art at the time of
the invention. We also note that Eckert and Jensen-1 indicate that the use of error
models and predictive models together was known in the art. For example, Eckert
discloses a predictive MRA model for real property and an equation for computing a standard error of the estimate (SEE), which is a dollar figure that measures the amount of deviation between actual and predicted sales prices. (p. 373). Eckert then notes that regression software often provides an option to calculate standard errors and corresponding intervals for individual predicted values, which are a function of the overall SEE and the individual characteristics of a parcel. (p. 374). Similarly, Jensen-1 discloses predictive regression models for real property and an expected value limit, which bands the expected individual sale price. (p. 225).

Turning to claim 6, we agree with Petitioner that Dr. Lipscomb’s testimony illustrates that it was well known to aggregate property training data into training data sets describing sales within a geographic area and that it would be obvious to successively use larger areas until the sales within a geographic area exceed a predetermined number. (Pet 27-28). However, because we find that the disclosure in Tay is cumulative to that in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 103 concerning Tay.

**Anticipation By Lu**

Petitioner has not demonstrated it is more likely than not that claims 1 and 10 are anticipated by Lu. At least some of the subject matter Petitioner cites as disclosing an error model appears to relate to an error signal generated to change
the weights used in developing the predictive model, which is similar to the approach we concluded did not anticipate claims 1 and 10 in Tay. (Pet. 30). Other subject matter cited by Petitioner appears to be an assessment of how accurately the sales price predicted by Lu’s neural network model for the properties included in the exercise compared to the actual sales price, which does not constitute an error model developed from the training data. (Pet. 30-31).

Petitioner has demonstrated it is more likely than not that claims 6 and 9 are anticipated by Lu. Claims 6 and 9 do not recite an error model. Turning to claim 9, Lu discloses selecting a geographic area surrounding the real estate property and obtaining data for the geographic area, such as the type of neighborhood, the economic area in the unemployment percentage. (Pet. 34). With respect to claim 6, Petitioner has also demonstrated Lu discloses selecting data concerning homes sold in the last 24 months in a section of a city and then collecting data on 700 homes in a larger geographic area, i.e., the entire city. (Pet. 33). Therefore, we grant the Petition with respect to its assertions under 35 U.S.C. § 102 concerning anticipation of claims 6 and 9 by Lu.
**Obviousness Over Lu**

Petitioner has demonstrated it is more likely than not that claims 1, 6, 9, and 10 are obvious over Lu given the state of the art with respect to the use of error models in modeling real property values, as discussed above with respect to Tay.

Petitioner has also demonstrated it is more likely than not that claims 6 and 9 are obvious over Lu because Lu discloses selecting data concerning homes sold in the last 24 months in a section of a city and then collecting data on 700 homes in a larger geographic area, i.e., the entire city. (Pet. 33). Therefore, we grant the Petition with respect to its assertions under 35 U.S.C. § 103 concerning the obviousness of claims 1, 6, 9 and 10 over Lu.

**Anticipation By Boyle**

Petitioner has not demonstrated it is more likely than not that claims 1 and 10 are anticipated by Boyle. Boyle does not appear to disclose generating a signal indicative of an error range for the appraised value responsive to the application of the individual property data to the stored error model. Boyle's disclosure of a standard error indicates that the model can be expected to predict prices within a specific range and that a maximum likely error can be calculated. (Pet. 40). However, it is not clear that Boyle discloses generating a signal indicative of an error responsive to the application of individual property data to a stored error
model, because Boyle appears to indicate the same standard error for any property appraised by Boyle’s predictive model.

Claim 9 does not recite an error model, but is limited to selecting a geographic area surrounding the real estate and obtaining area data for the geographic area. Petitioner notes that Boyle discloses performing trend surface analysis to describe the variation of values within the geographic location and the use of factors relating to the immediate environment of a property. (Pet. 42). However, because we find that the disclosure in Boyle is cumulative to the disclosure in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 102 concerning Boyle.

**Obviousness Over Boyle**

Claims 1 and 10 recite an error model, which does not appear to be disclosed in Boyle. Boyle does disclose calculating standard error. As we noted in our discussion of Tay, Eckert and Jensen-1 indicate that the use of error models and predictive models together was known in the art.

Turning to claim 6, Dr. Lipscomb’s testimony illustrates that it was well known to aggregate property training data into training data sets describing sales within a geographic area and that it would be obvious to successively use larger areas until the sales within a geographic area exceed a predetermined number.
(Pet 27-28, 44-45). However, because we find that the disclosure in Boyle is cumulative to that in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 103 concerning Boyle.

**Anticipation By Jensen-2 (1990)**

Petitioner has not demonstrated it is more likely than not that claims 1 and 10 are anticipated by Jensen-2. Petitioner cites a model evaluator component in Jensen-2 as demonstrating developing an error model from the training data. (Pet. 47-48). Jensen-2 discloses that the model evaluator checks the data in the model for predictive accuracy and identifies corrective action, such as transforming the response (sale price) to restore residual error normality. (p. 21). The corrective actions involve modifying modeling instructions and performing model refinement by repeating regression modeling using updated sets of tables and market data from Jensen’s market data interface. (p.22). Thus, Jensen-2 appears to utilize an error model to refine the predictive model developed from the training data, even if that training data includes the claimed real estate property being appraised.

However, we do not find that Jensen discloses generating a signal indicative of an error range for the appraised value responsive to application of the individual property data to the stored error model.
Claim 9, which does not recite an error model, recites obtaining data for a selected geographic area. Jensen-2 discloses a market interface module which uses information in a variable descriptor table and in the parcel selection control file, which includes a list of neighborhood codes (p.18), to extract the desired parcel descriptors from the relational database in order to create a sales market data file. (Pet. 49-50). However, because we find that the disclosure in Jensen-2 is cumulative to the disclosure in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 102 concerning Jensen-2.

Obviousness Over Jensen-2

The development of error signals to adjust the weighting in the predictive model in Jensen-2, suggests generating a signal indicative of an error range for the appraised value responsive to application of the individual property data to the stored error model, as recited in claims 1 and 10. Eckert and Jensen-1 demonstrate that the use of error models and predictive models together was known in the art.

Turning to claim 6, we agree with Petitioner and credit Dr. Lipscomb’s testimony that it was well known to aggregate property training data into training data sets describing sales within a geographic area and that it would be obvious to successively use larger areas until the sales within a geographic area exceed a predetermined number. (Pet 27-28, 51-52). However, because we find that the
 disclosure in Jensen-2 is cumulative to that in other references identified in the
Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 103
concerning Jensen-2.

**Anticipation By Carbone**

Petitioner has demonstrated it is more likely than not that claims 1, 9, and 10
are anticipated by Carbone. Carbone discloses a predictive model which outputs a
selling price of a property as $PV(t)$. (p. 244, Pet. 54). Carbone uses this selling
price output from the predictive model as a basis for updating the model by
generating corrections to provide a more accurate estimate for the next sale at time
t+1. While this does not provide the user of the model a range of values for the
current estimated selling price, Carbone’s exponential smoothing scheme, which
constitutes a stored error model, does generate a signal indicative of the error range
of the appraised value responsive to the application of the individual property data
to the stored error model. Hence, it is more likely than not that Carbone anticipates
claims 1 and 10.

Turning to claim 9, as Petitioner notes, Carbone discloses a study that
analyzed the sale of single-family houses based on bona fide transactions in two
neighborhoods of Allegany County, Pennsylvania. (Pet. 56). Therefore, we grant
the Petition with respect to its assertions under 35 U.S.C. §102 concerning anticipation of claims 1, 6 and 9 by Carbone.

Obviousness Over Carbone

Petitioner has demonstrated is more likely than not that claims 1, 6, 9, and 10 are obvious over Carbone. Claims 1, 9, and 10, are discussed above. Turning to claim 6, we agree with Petitioner and credit Dr. Lipscomb’s testimony that it was well known to aggregate property training data into training data sets describing sales within a geographic area and that it would be obvious to successively use larger areas until the sales within a geographic area exceed a predetermined number. (Pet 27-28, 57-58). Therefore, we grant the Petition with respect to its assertions under 35 U.S.C. § 103 concerning the obviousness of claims 1, 6, 9 and 10 over Carbone.

Anticipation By Des Rosiers

Petitioner has not demonstrated it is more likely than not that claims 1 and 10 are anticipated by Des Rosiers. The subject matter in Des Rosiers that Petitioner cites as generating a signal indicative of an error range for the appraised value responsive to the application of the individual property data to the stored error model appears to be an assessment of how accurately the sales price predicted by Des Rosiers for the properties included in the exercise compared to the actual
sales price. We find that this does not constitute the claimed error model developed from the training data or generating a signal indicative of an error range responsive to applying the individual property data to the stored error model. (Pet. 61).

Claim 9, which does not recite an error model, recites obtaining data for a selected geographic area, is anticipated by Des Rosiers. Des Rosiers discloses a geographic information system (GIS) and selecting segments of the Québec Urban Community (QUC) and obtaining area data for these geographic segments. (Pet. 63). However, because we find that the disclosure in Des Rosiers is cumulative to the disclosure in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 102 concerning Des Rosiers.

**Obviousness Over Des Rosiers**

Claims 1 and 10 recite an error model, which does not appear to be disclosed in Des Rosiers. Des Rosiers discloses comparing the errors in the model with actual data in various geographic regions.

With respect to claim 6, Des Rosiers discloses a GIS and its use in determining geographic areas to be included in the appraisal model.

Dr. Lipscomb’s testimony demonstrates that it was well known to aggregate
property training data into training data sets describing sales within a geographic area and that it would be obvious to successively use larger areas until the sales within a geographic area exceed a predetermined number. (Pet 27-28, 44-45). However, because we find that the disclosure in Des Rosiers is cumulative to that in other references identified in the Petition, we deny the Petition with respect to its assertions under 35 U.S.C. § 103 concerning Des Rosiers.

**Anticipation By Eckert**

Petitioner has demonstrated it is more likely than not that claims 1, 9, and 10 are anticipated by Eckert. Eckert discloses that the valuation portion of a mass appraisal system uses information maintained in a sales analysis and data management component to provide output valuations required to produce tax bills, which are individual bills to property owners based on the assessed value of a particular property. (p. 305-306). As Petitioner notes, Eckert discloses predictive models including a multiple regression analysis. (Pet. 67). Eckert also discloses a standard error of the estimate (SEE), which is a dollar figure that estimates the amount of deviation between the actual and predicted sales prices. (p. 373, Pet. 68). Eckert further discloses that regression software often produces an option to calculate standard errors and confidence intervals for individual predicted values, which are a function of the overall SEE and the individual characteristics of
a parcel. (p. 374). Thus, we agree it is more likely than not that claims 1 and 10 are anticipated by Eckert.

Claim 9 does not recite an error model, but is limited to selecting a geographic area surrounding the real estate and obtaining area data for the geographic area. We agree with Petitioner that Eckert discloses this feature in its discussion of geographic stratification and locational variations. (Pet. 70). Therefore, we grant the Petition with respect to its assertions under 35 U.S.C. §102 concerning anticipation of claims 1, 6 and 9 by Eckert.

**Obviousness Over Eckert**

Petitioner has demonstrated it is more likely than not that claims 1, 6, 9, and 10 are obvious over Eckert. Claims 1, 9, and 10, are discussed above.

Turning to claim 6, Eckert discloses using neighborhood boundaries and, when neighborhood boundaries are not clearly defined, using cluster analysis to combine properties into relatively homogeneous strata based on location and physical characteristics. (p. 340). As previously noted, we credit Dr. Lipscomb’s testimony that the features of claim 6 were known in the art. Therefore, we grant the Petition with respect to its assertions under 35 U.S.C. § 103 concerning the obviousness of claims 1, 6, 9 and 10 over Eckert.
Anticipation By Jensen-1 (1987)

We agree with Petitioner it is more likely than not that claims 1, 6, 9, and 10 are anticipated by Jensen-1. As Petitioner notes, Jensen-1 discloses computer implemented predictive valuation models for appraising real estate properties. (Pet. 73-74). We agree with Petitioner that Jensen also discloses equations for a "true value limit" and an "expected sale limit," which bands the expected individual sale price. (p. 224-5, Pet. 75). These thresholds are computed within the multiple regression procedure. (p. 224). Therefore, Jensen-1’s true value and expected sale limits, which constitutes a stored error model, generates a signal indicative of the error range of the appraised value responsive to the application of the individual property data to the stored error model. Hence, it is more likely than not that Carbone anticipates claims 1 and 10.

Neither claim 6 nor claim 9 recites an error model. Claim 9 recites selecting a geographic area surrounding the real estate property and obtaining data for the geographic area. Claim 6 recites aggregating property training data into training data sets, each describing a plurality of sales within a geographic area, and repeatedly using successive larger geographic areas until the number of sales within the geographic area over predetermined time exceeds a predetermined number. We agree with Petitioner that Jensen-1 discloses the features recited in both claims 6 and 9 at page 229. (Pet. 75-77). At page 229 Jensen-1 discloses a
model update process in which small sample environments are supplemented by considering available sales from several similar towns, the whole country, or the entire state and updating the current value estimates localized to a small jurisdiction. Therefore, we grant the Petition with respect to its assertions concerning anticipation by Jensen-1 of claims 1, 6 9 and 10 under 35 U.S.C. §102.

**Obviousness Over Jensen-1**

For the reasons discussed above, Petitioner has also demonstrated it is more likely than not that claims 1, 6, 9 and 10 are obvious over Jensen-1.

**§ 101 SUBJECT MATTER ELIGIBILITY**

Petitioner also assert that the claims of the ‘201 patent are unpatentable subject matter under 35 U.S.C. § 101 (Pet. 13-20). The Supreme Court has made it clear that the test for patent eligibility under § 101 is not amenable to bright-line categorical rules. *Bilski v. Kappos*, 130 S. Ct. 3218 (2010) and *Mayo Collaborative Servs. v. Prometheus Lab., Inc.* 132 S. Ct. 1289 (2012). The fact that a claim recites a method that is implemented on a computer or is directed to a computer-readable medium that causes a computer to implement certain steps are not per-se indicators of patent eligibility. Rather, a challenged claim, properly construed, must incorporate enough meaningful limitations to ensure that it claims more than just an abstract idea and not just a mere “drafting effort designed to monopolize
[an abstract idea] itself.” Mayo, 132 S. Ct. at 1297. To be meaningful, the claim must contain more than mere field-of-use limitations, tangential references to technology, insignificant pre- or post-solution activity, ancillary data-gathering steps, or the like. Thus, claims that recite a method of doing business on a computer and do no more than merely recite the use of the computer for its ordinary function of performing repetitive calculations are not patent eligible. Bancorp Servs., LLC v. Sun Life Assurance Co., 687 F.3d 1266, 1278-79 (Fed. Cir. 2012) (computer used only for its most basic function, the performance of repetitive calculations does not impose a meaningful claim limitation). Thus, we analyze a claim to determine whether the claim embodies a specific, practical application of an abstract idea, or merely nothing more than the abstract idea itself.

Claims 1, 6, 9 and 10 of the ‘201 patent all recite a computer implemented process and generating a signal indicative of an appraised value for the real estate property. Claims 1 and 10 also recite generating a signal indicative of an error range for the appraised value. The remaining limitations of the claims recite collecting and obtaining data (training data and individual property data), and developing and storing the predictive and error models, which appear to be known techniques, even in the field of appraising real estate. One must do more than simply instruct the user to use a principle; one must explain how the principle can be implemented in an effective way. Mayo, 132 S. Ct. at 1300. Simply appending
conventional steps specified at a high level of generality (in this case developing a predictive model and an error model) to laws of nature, natural phenomena, and abstract ideas cannot make those laws, phenomena, and ideas patentable. *(Id.)*

As discussed above, the mere fact that the claim recites that the method is computer implemented, or includes limitations such as storing the model and generating a signal indicative of a predicted result or its error does not transform an abstract idea into statutory subject matter. The claims of the ‘201 patent appear to be drawn to collecting data, applying an algorithm or mathematical process and communicating the result in a particular field of use (appraising real estate property). As such, it is more likely than not that claims 1, 6, 9, and 10 are unpatentable under 35 U.S.C. § 101.

**SUMMARY**

The Patent Owner has disclaimed claim 5. Only claims 1, 6, 9 and 10 remain in the Petition. Petitioner has demonstrated that claims 1, 6, 9 and 10 more likely than not are unpatentable.

I. The Petition is GRANTED as to the grounds asserted 35 U.S.C. § 101 with respect to claims 1, 6, 9, and 10.

II. The Petition is GRANTED as to the following grounds asserted under 35 U.S.C. § 102:
Claims 6 and 9 anticipated by Lu

Claims 1, 9 and 10 anticipated by Carbone

Claims 1, 9 and 10 anticipated by Eckert

Claims 1, 6, 9 and 10 anticipated by Jensen-1

III. The Petition is GRANTED as to the following grounds asserted under 35 U.S.C. § 103.

Claims 1, 6, 9 and 10 obvious over Lu

Claims 1, 6, 9 and 10 obvious over Carbone

Claims 1, 6, 9 and 10 obvious over Eckert

Claims 1, 6, 9 and 10 obvious over Jensen-1

IV. The Petition is DENIED as to the following grounds asserted under 35 U.S.C. § 102:

Claims 1, 9 and 10 anticipated by Tay

Claims 1 and 10 anticipated by Lu

Claims 1, 9 and 10 anticipated by Boyle

Claims 1,9 and 10 anticipated by Jensen-2 (1990)

Claims 1, 9 and 10 anticipated by Des Rosiers

V. The Petition is DENIED as to the following grounds asserted under 35 U.S.C. § 103:

Claims 1, 6, 9 and 10 obvious over Tay
ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is granted as to claims 1, 6, 9 and 10 of the ‘201 patent.

FURTHER ORDERED that pursuant to 35 U.S.C. § 324(a), a covered business method review of the ’201 patent is hereby instituted commencing on the entry date of this Order, and pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of a trial.

FURTHER ORDERED that the trial is limited to the grounds identified in the SUMMARY above and no other grounds are authorized.

FURTHER ORDERED that an initial conference call with the Board is scheduled for 3 PM ET on March 4, 2013. The parties are directed to the Office Trial Practice Guide, 77 Fed. Reg. 48756, 48765-66 (Aug. 14, 2012) for guidance in preparing for the initial conference call, and should come prepared to discuss any proposed changes to the Scheduling Order entered herewith and any motions the parties anticipate filing during the trial.
PETITIONER:

Mark Nikolsky
Kia Freeman
McCarter & English, LLP
100 Mulberry Street
Newark, NJ 07102

PATENT OWNER:

Scott McKeown
Michael Kiklis
Oblon Spivak
CPdocketMcKeown@oblon.com
CPdocketKiklis@oblon.com