

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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**LIBERTY MUTUAL INSURANCE CO.**  
Petitioner,

v.

**PROGRESSIVE CASUALTY INSURANCE CO.**  
Patent Owner.

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Case CBM2012-00002 (JL)  
Patent 6,064,970

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Before JAMESON LEE, JONI Y. CHANG, and MICHAEL R. ZECHER,  
*Administrative Patent Judges.*

CHANG, *Administrative Patent Judge*

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

## I. BACKGROUND

On September 16, 2012, Liberty Mutual Insurance Company (“Liberty”) filed a petition requesting a review under the transitional program for covered business method patents of U.S. Patent 6,064,970 (“the ’970 patent”). The patent owner, Progressive Casualty Insurance Company (“Progressive”), filed a preliminary response on December 21, 2012. (Paper No. 8.) We have jurisdiction under 35 U.S.C. § 324. *See* section 18(a) of the Leahy-Smith America Invents Act, Pub. L. 112-29, 125 Stat. 284, 329 (2011) (“AIA”).

The standard for instituting a covered business method review is set forth in 35 U.S.C. § 324(a), which provides as follows:

**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.

Liberty challenges the patentability of claims 1 and 3-18 of the ’970 patent. Taking into account Progressive’s preliminary response, we determine that the information presented in the petition demonstrates that it is more likely than not that the challenged claims are unpatentable. Pursuant to 35 U.S.C. § 324 and section 18(a) of the AIA, we hereby authorize a cover business method review to be instituted as to claims 1, 3-6, and 9-18 of the ’970 patent.

*A. Liberty's standing*

Liberty certifies that the '970 patent was asserted against it in Case No. 1:10-cv-01370, *Progressive Cas. Ins. Co. v. Safeco Ins. Co. of Ill. et al.*, pending in the U.S. District Court for the Northern District of Ohio. (Pet. 5.) Progressive does not dispute that certification.

*B. Covered Business Method Patent*

Under section 18(a)(1)(E) of the AIA, the Board may institute a transitional proceeding only for a patent that is a covered business method patent. Section 18(d)(1) of the AIA defines the term "covered business method patent" to mean:

a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.

The legislative history explains that the definition of covered business method patent was drafted to encompass patents "claiming activities that are financial or complementary to financial activity." 157 Cong. Rec. S5432 (daily ed. Sept. 8, 2011) (statement of Sen. Schumer).

Section 18(d)(2) of the AIA provides that "the Director shall issue regulations for determining whether a patent is for a technological invention." The legislative history points out that the regulation for this determination should only exclude "those patents whose novelty turns on a technological innovation over the prior art and are concerned with a

technical problem which is solved with a technical solution and which requires the claims to state the technical features which the inventor desires to protect.” 157 CONG. REC. S1364 (daily ed. Mar. 8, 2011) (statement of Sen. Schumer).

Pursuant to that statutory mandate, the Office promulgated 37 C.F.R. § 42.301(b) to define the term “technological invention” for the purposes of the Transitional Program for Covered Business Method Patents. Therefore, for determining whether a patent is for a technological invention in the context of the Transitional Program for Covered Business Method Patents, 37 C.F.R. § 42.301(b) identifies the following for consideration:

whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.

In the petition, Liberty asserts that the ’970 patent is a covered business method patent because the ’970 claimed invention is related to the administration and management of an insurance policy to adjust insurance premiums based on monitored vehicle data. (Pet. 3.) Liberty further contends that the claimed invention of the ’970 patent is not a “technological invention” as defined in 37 C.F.R. § 42.301(b). (Pet. 4.) According to Liberty, the prosecution history of the prior reexamination shows that there was no “technological feature” that was novel and unobvious, and the subject matter as a whole does not solve a “technical problem.” (Pet. 4-5.)

Progressive counters that the claimed invention of the ’970 patent is a “technological invention” and, therefore, the ’970 patent is ineligible for

covered business method review. (PR 50.) More specifically, Progressive argues that the claimed invention is similar to the credit card reader example provided in the Office Patent Trial Practice Guide,<sup>1</sup> which the Office indicates would not be eligible for a covered business method review. (PR 52-55.) Progressive also asserts that the claimed invention is more technical than a credit card reader since it includes physical sensors for sensing actual vehicle operation data. (*Id.*) Progressive further argues that the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art citing to the reasons for patentability provided by the Examiner in the prior *ex parte* reexamination (NIIRC at pages 9-22). (PR 56-63.) Additionally, Progressive contends that the claimed subject matter as a whole solves a technical problem using a technical solution because sensor data representing actual monitored driving characteristics of an operating state of vehicles or actions of operators is used to determining an insurance rating, solving the problem of the unavailability of such data. (PR 54-58.)

We are not persuaded by Progressive's arguments. Rather, we determine that Liberty has demonstrated that the '970 patent is a covered business method patent and the claimed invention is not a "technological invention" within the meaning of 37 C.F.R. § 42.301(b).

The determination of whether a patent is eligible for covered business method review is based on what the patent claims. In other words, a patent

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<sup>1</sup> *Office Patent Trial Practice Guide*, 77 *Fed. Reg.* 48756, 48764 (Aug. 14, 2012).

having one claim directed to a covered business method is eligible for review even if the patent includes additional claims.<sup>2</sup>

Here, the '970 patent discloses an invention that is related to a method of determining a cost of automobile insurance based upon monitoring, recording and communicating data representative of operator and vehicle driving characteristics. (Abs.) Claim 4, reproduced below, is illustrative of the claimed subject matter:

A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating an initial operator profile;

generating an insured profile for the vehicle operator prior to any monitoring of any of the vehicle operator's driving characteristics wherein the insured profile comprises coverage information, including limits and deductibles, for determining a base cost of vehicle insurance for the vehicle operator;

monitoring the vehicle operator's driving characteristics during the selected period; and

deciding a total cost of vehicle insurance for the selected period based upon the vehicle operator's driving characteristics monitored in that selected period and the base cost of insurance.<sup>3</sup>

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<sup>2</sup> *Transitional Program for Covered Business Method Patents – Definitions of Covered Business Method Patent and Technological Invention; Final Rule*, 77 *Fed. Reg.* 48734, 48736 (Aug. 14, 2012) (Response to Comment 8).

<sup>3</sup> Reexam. Cert. at col. 1:50-65 (original emphases and bracketed matters omitted).

For the issue of whether the claimed invention is a technological invention under 37 C.F.R. § 42.301(b), we focus our analysis on claim 4. We first note that Progressive's contentions are not commensurate with the scope of claim 4. Notably, the sensors for monitoring the vehicle operator's driving characteristics are described in the '970 specification, but are not recited in claim 4. In fact, claim 4 does not recite any technological element (*e.g.*, a computer or electrical sensors), but rather only recites method steps that can be completed by a person. For example, a passenger sitting in the vehicle when the vehicle operator is driving can monitor the vehicle operator's driving characteristics during the selected time period (*e.g.*, the passenger can observe whether the vehicle operator is driving over the speed limit or fails to stop at a red traffic light). Progressive fails to point out any specific novel and non-obvious technological element recited in claim 4. Therefore, Progressive's arguments related to the credit card reader example in the Office Patent Trial Practice Guide are misplaced.

As to Progressive's contentions regarding the Examiner's reasons for patentability for claim 4 in the prior *ex parte* reexamination, Progressive merely relies upon the Examiner's statements that the prior art cited in the reexamination does not disclose the insured-profile claim limitation (generating an insured profile prior to any monitoring of any of the vehicle operator's driving characteristics). (PR 49-50.) However, that claim limitation does not require a technological feature. Indeed, a person can generate an insured profile by writing down on a paper the value of the

vehicle, insurance coverage limits, and deductibles, before a passenger monitors the vehicle operator's driving characteristics.

We are also not convinced by Progressive's argument that the claimed subject matter as a whole solves a technical problem using a technical solution. The '970 specification expressly states that the motor vehicle control and operating systems that were known in the art at the time of the invention could readily be modified to obtain the desired types of information relevant to determination of the cost of insurance. (Col. 3:25-28.) Determining a cost of vehicle insurance is a financial problem rather than a technical problem.

For the foregoing reasons, the subject matter of claim 4 is not a "technological invention" under 37 C.F.R. § 42.301(b). Accordingly, the '970 patent is eligible for a covered business method review.

### *C. Prior Art Relied Upon*

Liberty relies upon the following prior art references:

Kosaka	JP-H4/182868	June 30, 1992	(Ex. 1004)
Herrod	GB-2 286 369 A	Aug. 16, 1995	(Ex. 1007)

1988 Automobile Insurance Shoppers' Guide, published in 1988 ("Florida Guide") (Ex. 1005)

1995 Consumers Guide on Automobile Insurance (Downstate), published in 1995 ("New York Guide") (Ex. 1006)

"An Interest in Black Magic – Motor Technology," Jan. 1, 1994 in *Insurance Age Magazine* ("Black Magic") (Ex. 1008)



*D. Grounds of Challenge*

Claims 1, 4, 5, 6, and 18 are independent claims. Liberty seeks cancelation of claims 1 and 3-18 based on the following grounds:

- A. Claims 4, 5, 16, and 17 are anticipated under 35 U.S.C. § 102 by Kosaka;
- B. Claims 4, 5, 16, and 17 are unpatentable under 35 U.S.C. § 103(a) over Kosaka in view of Florida Guide or New York Guide;
- C. Claims 1, 3, 11-12, and 14-15 are unpatentable under 35 U.S.C. § 103(a) over Kosaka and Black Magic in view of Herrod or New York Guide.
- D. Claims 6-10, 13, and 18 are unpatentable under 35 U.S.C. § 103(a) over Kosaka in view of Herrod or New York Guide.

II. FINDINGS OF FACTS

The findings of fact in this decision including those in the analysis are supported by a preponderance of the evidence.

*A. Background of The '970 Patent*

The background section of the '970 patent describes conventional insurance schemes that use actuarial classes to determine vehicle insurance costs. (Col. 1:17-2:37.) In particular, the background section of the '970 patent discloses that conventional insurance cost determination methods involve generating an insured profile for the vehicle operator by gathering relevant historical data from a personal interview and public motor vehicle

driving records. (Col. 1:17-col. 2:37.) The data results in a classification of the vehicle operator to a broad actuarial class for which insurance rates are assigned based upon the empirical experience of the insurer. (Col. 1:22-24.) The conventional insurance system creates groupings of vehicles and drivers (actuarial classes) based on certain types of classifications (*e.g.*, speeding or other traffic violations and number of accidents). (Col. 1:21-27; col. 2:1-4.) The classifications are further broken into actuarial classes to develop a unique vehicle insurance cost based on the specific combination of actuarial classes for a particular risk. (Col. 1:53-56.) Based on the information in the insured profile (*e.g.*, the value of the vehicle, driver's record, and type of coverage), a unique vehicle insurance cost is determined. (Col. 1:56-col. 2:12.) Additionally, conventional insurance rating systems provide discounts and surcharges for certain types of use of the vehicle, equipment on the vehicle, and type of driver. (Col. 2:22-24.) For example, discounts are provided to safe drivers, such as those that have low number of speeding violations or accidents. (Col. 1:17-col. 2:37.)

*B. Kosaka*

Kosaka's invention is related to an insurance premium determination device that increases or decreases insurance premiums by continually determining insurance premium changes through the detection of states that lead to risk in the insurance customer. (P. 2, col. 1:54-col. 2:1-3; col. 2:43-

52.<sup>4</sup>) Kosaka's insurance premium determination device employs a risk evaluation device for evaluating risk in the vehicle and driver. *Id.* Kosaka's insurance premium determination system "allows risk evaluations that change from hour to hour during travel to be reflected in the insurance premium." (P. 7, col. 2:21-25.) Figure 1 of Kosaka, reproduced below, illustrates one of Kosaka's embodiments:

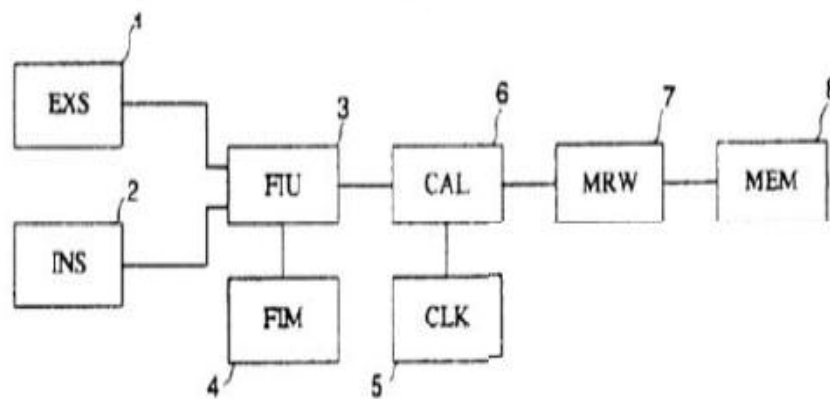


Figure 1 shows a configuration diagram of Kosaka's system

Referring to figure 1, the external sensor 1 and internal sensor 2 detect the states of the driver and vehicle that contribute to risk (*e.g.*, speed). (P. 3, col. 1:4-18; p. 4, col. 2:4-17.) The fuzzy logic part 3 evaluates risk based on the states of the driver and vehicle. (P. 3, col. 2:23-30; p. 4, col. 2:18-20.) Specifically, the outputs from sensors 1 and 2 are used as input values to the fuzzy logic part 3. (P. 4, col. 2:18-19.) The risk evaluation values

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<sup>4</sup> As Kosaka is a Japanese Unpublished Application, the citations to Kosaka are to the Certified English-Language Translation provided by Liberty in Exhibit 1004. The page numbers refer to those that appear on the top center of each page, and not the exhibit page numbers that appear on the bottom right corner.

determined by the fuzzy logic may be stored in the fuzzy memory 4. (P. 4, col. 2:24-26.) The detection of the states that contribute to risk and the evaluation of risk are carried out in real time. (P. 4, col. 1:30-34.)

Kosaka's system further includes a premium calculation part 6 that uses the risk evaluation values to determine and insurance adjustments. (P.4, col. 2:26-30.) The premium calculation part 6 performs temporal integration and computation of risk evaluation values, and calculates insurance premiums. (P. 4, col. 2:26-29.) System 5 is connected to the premium calculation part 6 to perform time integration. (P. 4, col. 2:31-33.) A determination of the insurance adjustment is also performed in real time. (P. 4, col. 1:30-34.) Kosaka's system further includes: (1) an output interface 7 that has an electronic currency transfer request means or a prepayment amount erasing means; and (2) a monetary amount file part 8 that stores prepayment balance. (P. 4, col. 2:33-38.)

### *C. Herrod*

Herrod discloses a computer-based monitoring and reporting device that is used in a vehicle to measure driver acceleration patterns and report associated accident risks. (P. 1-2<sup>5</sup>.) Herrod's device uses the measured acceleration data to classify the driver into one of several groups, each of which associates with a different level of accident risk. (*Id.*) According to Herrod, safe drivers can use the measured acceleration data to demonstrate

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<sup>5</sup> The page numbers refer to the original page numbers of the references, and not the exhibit page numbers on the bottom right corner.

their competence to insurance companies. (P. 1.)

#### *D. Florida Guide*

The Florida Guide is an automobile insurance shoppers' guide that is designed to help insurance policy holders control some of the costs associated with automobile insurance. (Title and Comm. Message.) According to the Florida Guide, all drivers in the state of Florida must carry a minimum amount of property damage liability coverage in addition to the required personal injury protection coverage. (P. 3.) Further, auto insurance premium may vary based on many factors such as the type of coverage the policy holder selects, including liability limits and deductibles (p. 11), and the area where the policy holder garages their car (p. 13). For example, if the policy holder selects high liability limits and low deductibles, the policy holder is likely to pay more for auto insurance. (P. 11.) Different premiums are charged in different areas because of frequency of accidents, medical expenses and repair cost. (P. 13.)

#### *E. New York Guide*

The New York Guide is a consumer guide on automobile insurance. In particular, the New York Guide provides ways that the insurance holders may save money on auto insurance, such as increasing the deductibles on physical damage coverage. (P. 17-19.)

#### *F. Black Magic*

Black Magic discloses a computer-implemented unit installed in a

vehicle to record information such as driving speed, time, and distance travelled. (P1.) When the unit is used with a Global Positioning System that can also record the vehicle's location, the information could be utilized to calculate insurance premiums according to styles of driving and locality of use. (P2.)

### III. PRINCIPLES OF LAW

A patent claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, (3) the level of skill in the art, and (4) where in evidence, so-called secondary considerations. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966).

#### IV. ANALYSIS

##### A. *Claim Construction*

In a covered business method patent review, claim terms 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). Thus, we determine the scope of the claims by giving claim terms their broadest reasonable construction in light of the specification as it would be interpreted by one of ordinary skill in the art. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1316 (Fed. Cir. 2005) (en banc).

Here, Liberty states that for the sole purposes of this proceeding, it construes the claim language such that claim terms are given their broadest reasonable interpretation, based upon the interpretation given by the Office during the prior *ex parte* reexamination of the '970 patent (Control No. 90/011,252). (Pet. 20.) Specifically, Liberty lists several key terms and their constructions (reproduced in the table below) as applied during the prior reexamination. (Pet. 21-23.)

Progressive does not oppose those claim constructions. Upon review of the record, Liberty's claim constructions seem to be consistent with the specification. Further, in the prior reexamination, the Office gave the claim terms their broadest reasonable construction consistent with the specification. *See e.g.*, Ex. 1003 at 755, 3/7/11 OA at 6. Based on the record before us, we therefore adopt the constructions provided by Liberty in the petition.

<b>Claim Term</b>	<b>Construction</b>
Vehicle (claims 1, 3-18)	Operator controlled motor vehicles normally requiring insurance, including, but not limited to, automobiles
Initial operator profile/ initial insured profile (claims 4-5, 16-17)	Initial files or information with respect to the operator or the insuring thereof
Actuarial class (claims 1,3, 6-15, 18)	A combination/group/groupings related to loss/risk/safety which are determined from classifications/characteristics representative of motor vehicle operational characteristics and driver behavior for which data is gathered
Cost of insurance/cost of vehicle insurance (claims 1, 3-5, 16-17)	A/one or more or all cost(s) associated with insurance of the vehicle, including, but not limited to, a cost to the insured and/or insurer/underwriter associated with the insurance
Safety standard (claims 5, 10-11, 13-14, 16-18)	Value/criteria associated with the promotion of safety/prevention of risk/loss/injury
Base cost (claims 4-5, 16-17)	A/one or some cost(s), e.g., not all costs or the final or total cost or gross premium, associated with insurance of the vehicle, e.g., a cost to the insured and/or insurer/underwriter associated with the insurance
Extracting (claims 6-15, 18)	Collecting, deriving, generating or calculating
Insurance rating (claims 6, 9, 18)	A/some value/cost used to determine an overall cost associated with insurance of the vehicle



Storing and transmitting a signal corresponding to the determined triggering event to a receiving system (claim 7)	Storing of information corresponding to the event and transmitting of a signal/information corresponding to the event to a receiving system which system may or may not be remote.
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*B. Claims 4, 5, 16, and 17*

Claims 4 and 5 are independent claims, and claims 16 and 17 depend from claim 5. Claim 4, reproduced below, is representative:

A method of insuring a vehicle operator for a selected period based upon operator driving characteristics during the period, comprising, steps of:

generating an initial operator profile;

*generating an insured profile for the vehicle operator prior to any monitoring of any of the vehicle operator's driving characteristics wherein the insured profile comprises coverage information, including limits and deductibles, for determining a base cost of vehicle insurance for the vehicle operator;*

monitoring [operator] *the vehicle operator's* driving characteristics during the selected period; and

deciding a *total* cost of vehicle insurance for the selected period based upon the [operating] *vehicle operator's driving* characteristics monitored in that selected period *and the base cost of insurance.*<sup>6</sup>

Liberty alleges that claims 4, 5, 16, and 17 are unpatentable under 35 U.S.C. § 103(a) over Kosaka in view of Florida Guide or New York Guide.

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<sup>6</sup> Reexam. Cert. at col. 1:50-65.

(Pet. 41-51, 65, and 66.) In particular, Liberty contends that the cited prior art references describe all of the claim elements. (Pet. 34-38.) Liberty further provides the rationales for combining the references. (Pet. 28-34.)

Progressive disagrees and counters that the cited prior art references fail to describe the insured-profile claim limitation (“generating an *insured* profile for the vehicle operator prior to any monitoring of any of the vehicle operator’s driving characteristics wherein the insured profile comprises coverage information, including limits and deductibles, for determining a *base cost* of vehicle insurance for the vehicle operator”), and the total-cost claim limitation (“*deciding a total cost* of vehicle insurance for the selected period *based upon* the vehicle operator’s driving characteristics monitored in that selected period and the *base cost* of insurance”), as recited in claim 4. (PR 33-38.) Specifically, Progressive argues that “the Kosaka prepayment amount is not a base cost of insurance but a deposit amount from which future insurance charges are subtracted.” (PR 35.)

We do not agree with Progressive since its arguments are based on an overly narrow reading of the prior art references without sufficient consideration of the knowledge of one with ordinary skill in the art. We note that an obviousness analysis “need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418; *In re Translogic Tech.*, 504 F.3d 1249, 1259 (Fed. Cir. 2007). Prior art references must be “considered together with the knowledge of one of ordinary skill in

the pertinent art.” *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Moreover, “it is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Preda*, 401 F.2d 825, 826 (CCPA 1968).

On this record, the evidence shows that the knowledge level of one with ordinary skill in the art is quite advanced.<sup>7</sup> For instance, conventional insurance schemes that use actuarial classes to determine vehicle insurance costs were well known in the art at the time of the invention. (*See e.g.*, PR 13-14; 39.) Further, we agree with Progressive that the Florida Guide and New York Guide cited by Liberty discuss the same conventional prior art knowledge that is disclosed in the background section of the ’970 patent. (*See e.g.*, PR 13-14 (The Florida Guide and New York Guide “discuss the same subject matter (*i.e.*, the existence of traditional actuarial classes) that is disclosed in the background section of the ’970 patent”); PR 39 (The cited portions of the Florida Guide are “essentially identical to the prior art

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<sup>7</sup> The field of the ’970 patent is insurance which includes determining a cost of vehicle insurance based on telematics data. Ex 1009, ¶ 17; Ex 1012, ¶ 17. A person of ordinary skill in the art as to insurance pricing would have at least a B.S. in Mathematics, or equivalent, with at least 5 years of experience in the insurance industry setting premiums for auto insurance, and as an associate in the Casualty Actuarial Society. Ex 1009, ¶ 17. A person of ordinary skill in the art as to telematics data would have at least a B.S. degree in electrical engineering, computer engineering, computer science or the equivalent thereof and at least one to two years of experience with vehicle telematics systems. Ex 1012, ¶ 17.

knowledge disclosed in columns 1 and 2 of the '970 patent.”)) We therefore conclude that the background section of the '970 patent (specifically col. 1:17-2:37) is admitted conventional prior art. *In re Nomiya*, 509 F.2d 566, 571 (CCPA 1975). And thus the knowledge of one with ordinary skill in the art would include a thorough understanding of using actuarial classes to determine vehicle insurance costs.

We regard the conventional insurance cost determination techniques noted in the background section of the '970 patent (col. 1:17-2:37) as basic knowledge within the level of ordinary skill in the art. Hence, a person of ordinary skill in the art would have appreciated that when a vehicle operator is applying for an insurance policy from an insurance company, an insured profile for the vehicle operator would be generated to determine a base cost (a unique vehicle insurance cost), and such an insured profile includes coverage information such as limits and deductibles. We also observe that a person of ordinary skill in the art would have recognized that the base cost is the amount that the insurance company charges *prior to applying any discounts or surcharges*, and the total cost is calculated based on the base cost and any applicable discounts or surcharges.

Although Kosaka's prepayment amount is a deposit amount, one of ordinary skill in the art would have comprehended that insurance companies would want to make the prepayment amount equal to the base cost of insurance when utilizing Kosaka's insurance premium determination device. This is so because the base cost is the amount that the policy holder is obligated to pay the insurance company initially before any monitoring of

the vehicle operator's driving characteristics. *See KSR*, 550 U.S. at 421, (“A person of ordinary skill is also a person of ordinary creativity, not an automaton.”).

For the foregoing reasons, we conclude that Liberty's petition has demonstrated that it is more likely than not that claim 4 would have been obvious over Kosaka and the Florida Guide. As to claims 5, 16, and 17, Progressive relies upon the same arguments presented with regard to claim 4. (PR 42-43, 50.) The explanations provided by Liberty as to how each element of those claims is met by the cited prior art references appear to have merit and are otherwise un rebutted. Therefore, we likewise conclude that Liberty has demonstrated that it is more likely than not that claims 5, 16, and 17 are unpatentable over the same prior art of record.

### C. Claims 1 and 3

Claim 1, reproduced below, is representative:

A method of generating a database comprising data elements representative of operator or vehicle driving characteristics, the method comprising:

*generating actuarial [sic] classes of insurance, which group operators or vehicles having a similar risk characteristic, from actual monitored driving characteristics during a selected time period as represented by recorded data elements representative of an operating state of the vehicles or an action of the operators; and*

monitoring a plurality of the data elements representative of an operating state of a vehicle or an action of [the] *an* operator during a *latter* selected time period; and,

recording selected ones of the plurality of data elements into the database when said ones are determined to be appropriate for recording relative to determining a cost of insurance for the vehicle during the *latter* selected time period,

said ones including, a time and location of vehicle operation and a corresponding log of vehicle speed for the time and location.<sup>8</sup>

Liberty alleges that claims 1 and 3 are unpatentable under 35 U.S.C. § 103(a) over Kosaka, Black Magic, and Herrod. (Pet. 35-41.) In particular, Liberty contends that the cited prior art references describe all of the claim elements. (*Id.*) Liberty further provides the rationales for combining the references. (Pet. 28-34.)

Progressive opposes and argues that: (1) the combination of prior art fails to disclose all the elements recited in claim 1; and (2) one would not have attempted to combine the references. (PR. 17.)

1. Whether the prior art combination discloses the claimed subject matter

Progressive alleges that the combination of prior art references fails to describe the actuarial-class claim limitation (“generating actuarial classes of insurance, which group operators or vehicles having a similar risk characteristic, *from actual monitored driving characteristics* during a selected time period as represented by recorded data elements representative of an operating state of the vehicles or an action of the operators”) as recited in claim 1. (PR 22-30.) According to Progressive, Herrod’s disclosure of a

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<sup>8</sup> Reexam. Cert. col. 1:27-48.

particular behavioral group based on the driver's driving characteristics are not "actuarial classes of insurance" because Herrod uses the behavioral groups for providing in-car advice for safe driving practices, not for generating "actuarial classes of insurance" as required by the actuarial-class claim limitation. (PR 26-28.) Progressive also asserts that Herrod's disclosure of behavioral groups is a "vague, high-level disclosure [that] includes no enabling disclosure" of generating actuarial classes of insurance as required by claim 1. (PR 29.)

We are not persuaded by Progressive's arguments. Specifically, Progressive fails to recognize that prior art references must be "considered together with the knowledge of one of ordinary skill in the pertinent art." *In re Paulsen*, 30 F.3d at 1480.

To conduct a proper obviousness analysis, Herrod's disclosure must be read in light of the knowledge of one with ordinary skill in the art. As discussed previously, generating actuarial classes of insurance which group operators or vehicles having a similar risk characteristic was well known in the art. Further, the requirement that the actuarial classes are generated *from actual monitored driving characteristics* is described by Herrod. (Pet. 36, citing to Herrod Abs. and 1-2.)

Herrod discloses a computer-based monitoring and reporting device that is used in a vehicle to measure driver acceleration patterns and report associated accident risks. (Herrod 1-2.) Herrod's device uses the measured acceleration data to classify the driver into one of several groups, each of which associates with a different level of accident risk. (*Id.*) According to

Herrod, safe drivers can use the measured acceleration data to demonstrate their competence to insurance companies. (Herrod 2.)

Under the broadest reasonable construction standard, as discussed previously, the term “actuarial class” is interpreted as “a combination/group/groupings related to loss/risk/safety which are determined from classifications/characteristics representative of motor vehicle operational characteristics and driver behavior for which data is gathered.” Applying that claim construction, Herrod’s driver accident-risk groups clearly satisfy that the “actuarial class” element since Herrod’s driver behavioral/accident-risk groups are determined based on the actual measured acceleration data and each group is associated with a different level of accident risk. In light of the collective teachings of Kosaka and Herrod, it would have been obvious to one with ordinary skill in the art to generate actuarial classes *from actual monitored driving characteristics*.

Progressive’s argument that Herrod’s disclosure of driver behavioral groups is limited to providing in-car advice is without merit. (PR 26-28.) Herrod describes that through monitoring equipment safe drivers are able to demonstrate their competence to insurance companies (Herrod 2, Background). *See KSR*, 550 U.S. at 416 (A reference may be read for all that it teaches, including uses beyond its primary purpose.).

As to Progressive’s arguments regarding alleged non-enabling disclosure of Herrod, we are not convinced. (PR 28-30.) Prior art publications and patents are presumed to be enabled. *In re Antor Media Corp.*, 689 F.3d 1282, 1287-88 (Fed. Cir. 2012); *Amgen Inc. v. Hoechst*



*Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003) (both claimed and unclaimed materials disclosed in a prior art patent are presumptively enabling, placing the burden on the patentee to show that unclaimed disclosures in a prior art patent are not enabling). Progressive fails to demonstrate that Herrod does not provide an enabling disclosure for the disputed claim limitation. Specifically, Progressive does not provide sufficient factual basis to support a showing that undue experimentation would be needed to practice the disputed claim limitation based on Herrod disclosure. *In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988).

2. Whether one would have combined the prior art references

Progressive argues that “Herrod discloses a crisp logic approach that assigns drivers to behavioral groups – an approach which is antithetical to the fuzzy logic approach of Kosaka.” (PR 17.) It is Progressive’s position that this fundamental incompatibility between the two references would discourage skill artisan from combining the prior art references. (*Id.*) To support its contention, Progressive cited several U.S. patents and a New York Times article related to fuzzy logic technology.<sup>9</sup>

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<sup>9</sup> Hisano      US patent 5,239,616      Aug. 24, 1993  
Sirag        US patent 5,260,526      Nov. 9, 1993  
Wang        US patent 5,455,890      Oct. 3, 1995

“Fuzzy Thinking Has Merits When It Comes to Elevators” by Jeanne B. Pinder, the New York Times (Sept. 22, 1993). (Ex 2005.)

We disagree. Rather, the evidence of record does not support Progressive's contention. It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements. *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012); *In re Etter*, 756 F.2d 852, 859 (Fed. Cir. 1985) (en banc); *In re Keller* 642 F.2d 413, 425 (CCPA 1981) (Obviousness does not require that all of the features of the secondary reference be bodily incorporated into the primary reference.).

As discussed *supra*, generating actuarial classes of insurance which group operators or vehicles having a similar risk characteristic was well known in the art at the time of the invention. Herrod is relied upon to show that the actuarial classes are generated *from actual monitored driving characteristics*. Progressive has not provided sufficient evidence that the mere substitution of *actual monitored driving characteristics* for *traditional reported driving characteristics* would have been beyond the level of an ordinary skilled artisan. See *Leapfrog Ent., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (“[a]ccommodating a prior art mechanical device that accomplishes [a desired] goal to modern electronics would have been reasonably obvious to one of ordinary skill in designing children’s learning devices”).

Upon review of the references cited by Progressive for support of its contention, we conclude that the cited portions of the references articulate generally the advantages and features of fuzzy logic devices. (PR 18-19, citing to Pinder 1 (“[T]raditional logic [uses] ‘crisp’ distinction, such as true

or false...”); Hisano, col. 1:11-20 (“fuzzy sets differ from crisp, Boolean type logic in that, as opposed to the latter, a fuzzy set allows for shades of grey.”); Wang, col. 1:42-44 (“[f]uzzy set theory, then, is useful in those situations in which data and relationships cannot be written in crisp mathematical terms.”); Sirag, col. 5:42-45 (“crisp value is any value or system of values which does not employ fuzzy logic.”)). In that regard, a reference does not teach away if it merely discloses a general preference for an alternative invention, and does not “criticize, discredit, or otherwise discourage the solution claimed” in the patent. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004).

A prior art reference must be considered for everything it teaches by way of technology and is not limited to the particular invention it is describing and attempting to protect. *EWP Corp. v. Reliance Universal Inc.*, 755 F.2d 898, 907 (Fed. Cir. 1985), *cert. denied*, 474 U.S. 843 (1985). Here, Herrod does not suggest that actuarial classes based on *actual monitored* driving characteristics must be implemented in a crisp logic approach and cannot be implemented with the approach disclosed in Kosaka. Progressive fails to provide sufficient explanation as to why such an implementation would have been beyond the level of an ordinary skilled artisan given that one of ordinary skill in the art as to fuzzy logic technology would have the knowledge of artificial intelligence and neural network (*see e.g.*, Pinder; Hisano; Wang).

Progressive’s reliance on *Acharya* is misplaced. (PR 20-21.)  
*Ex parte Acharya*, App. No. 2010-3919 (BPAI June 19, 2012). Herrod is

relied upon for the mere substitution of *actual monitored* driving characteristics for *traditional reported* driving characteristics. Progressive fails to provide sufficient evidence to support that such a substitution would change the fundamental operation of the claimed invention. Therefore, *Acharya* does not apply to the specific facts of the instant proceeding.

For the foregoing reasons, we conclude that Liberty has demonstrated that it is more likely than not that claim 1 is unpatentable over Kosaka, Black Magic, and Herrod. As to dependent claim 3, Progressive relies upon the same arguments presented with regard to claim 1. (PR 50.) The explanations provided by Liberty as to how each element of claim 3 is met by the cited prior art references appear to have merit and are otherwise un rebutted. Therefore, we likewise conclude that Liberty has demonstrated that it is more likely than not that claim 3 is unpatentable over the same prior art references.

#### *D. Claims 6-15 and 18*

Claims 6 and 18 are independent claims. Claim 6, reproduced below, is representative:

A method of monitoring a human *operator* controlled power source driven vehicle, the method comprising:

extracting one or more data elements *by a computer programmed to monitor sensor data* from at least one sensor wherein the one or more elements are *actual driving characteristics* of at least one operating state of the and [the] at least one [human's] *human operator's* actions during a data collection period;

analyzing, grouping, and storing the one or more data

elements as group data values in a first memory related to a predetermined group of elements; and,

correlating the group data values to preset values in a second memory and generating an output data value based on the correlation wherein the output data value is used to compute an insurance rating for the vehicle [FOR the data collection period] *for the data collection period that is based on an actuarial class of insurance which groups other human operator controlled power source driven vehicles having a similar operator or vehicle risk characteristic and which also represents the actual driving characteristics of the vehicle monitored and recorded from the at least one sensor.*<sup>10</sup>

Liberty alleges that claims 6-15 and 18 are unpatentable under 35 U.S.C. § 103(a) over the combination of Kosaka in view of Herrod. (Pet. 52-71.) In particular, Liberty contends that the cited prior art references describes all of the claim elements. (*Id.*) Liberty further provides the rationales for combining the references. (Pet. 28-34.)

In addition to the arguments presented with respect to claim 1 which we addressed previously, Progressive argues that the cited prior art references fail to describe the analyzing limitation (“analyzing, grouping, and storing the one or more data elements as *group data values* in a first memory related to a predetermined group of elements”), and the correlating limitation (correlating *the group data values* to preset values in a second memory), as recited in claims 6 and 18. (PR 44-49.) According to Progressive, the claim requires that *the same group data values* in the

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<sup>10</sup> Reexam. Cert. col. 2:26-48.

analyzing limitation be correlated in the correlating limitation. (PR 47.) Progressive alleges that the cited portions of Kosaka show “totally disparate data values in these two limitations.” (*Id.*)

We disagree with Progressive as the evidence of record does not support Progressive’s contention.

Kosaka’s invention is related to an insurance premium determination device that increases or decreases insurance premiums by continually determining insurance premium changes through the detection of states that lead to risk in the insurance customer. (Kosaka 2, col. 1:54- col. 2:1-3; col. 2:43-52.) Kosaka’s insurance premium determination device employs a risk evaluation device for evaluating risk in the vehicle and driver. *Id.* Kosaka describes that the output from the external sensor and internal sensor are input to the fuzzy logic part. (Kosaka 4, col. 2:18-20.) Kosaka’s fuzzy logic part determines comprehensive risk based on reasoning utilizing vague empirical knowledge through the input of the internal measured data and the external measured data. (Kosaka 4, col. 2:20-24.) In one of the embodiments, Kosaka describes monitoring the *ground speed* of the automobile, and forwarding the output of the speed detector to the signal preprocessing unit and the system activation control part. (Kosaka 6, col. 2:7-10, col. 2:38-43; 7, col. 1:5-9.) Kosaka’s system compares the speed with a set value to determine whether it exceeds the set value. (Kosaka 7, col. 1:5-11.) Based on those explicit disclosures of Kosaka, we conclude that *the same monitored speed data* that is analyzed, grouped, and

stored is being correlated to a preset value as required by the disputed claim limitations.

For the foregoing reasons, we conclude that Liberty's petition has demonstrated that it is more likely than not that claims 6 and 18 are unpatentable in view of Kosaka and Herrod. As to claims 9-15, Progressive relies upon the same arguments presented with regard to claims 6 and 18. (PR 42-43, 50.) The explanations provided by Liberty as to how each element of those claims is met by the cited prior art references appear to have merit and are otherwise un rebutted. Therefore, we likewise conclude that Liberty has demonstrated that it is more likely than not that claims 9-15 are unpatentable over the same prior art of record.

However, we observe that Liberty fails to satisfy the limitation "transmitting a signal corresponding to the determined triggering event to a *receiving system*" as required by claims 7 and 8. Liberty contends that "Kosaka's disclosure of generating and transmitting a signal explicitly teaches, or at minimum inherently, discloses, storing the signal in memory such that it can be accessed and transmitted." (Pet. 57-58, citing Kosaka 7 ("When the risk value exceeds a set value, a warning is sent by a warning device 45 to the *operator*." (Emphasis added.)) Kosaka's disclosure of transmitting a warning to the *operator* is not sufficient to satisfy the requirement of transmitting a signal to a *receiving system*. Liberty fails to direct us where in Kosaka discloses "a receiving system." Liberty also did not provide sufficient explanation as to why one of ordinary skill in the art

would have recognized an operator (which is a person) as a receiving system.

Accordingly, we determine that Liberty's petition has not demonstrated that it is more likely than not that claims 7 and 8 are unpatentable in view of the cited prior art.

## V. OTHER CONSIDERATIONS

Progressive requests the Office to exercise its authority under 35 U.S.C. § 325(d) to deny the petition because the asserted prior art references and arguments were considered by the Office in the prior *ex parte* reexamination (Control No. 90/011,252). (PR 10-16.) In Progressive's view, to rehear grounds already considered would be contrary to the AIA and its legislative history, which foreclose repeated petitions that rely on the same or substantially the same prior art or arguments. (*Id.*)

We agree that the Office has the authority under 35 U.S.C. § 325(d) to reject a petition when the same or substantially the same prior art or arguments previously were presented to the Office. The relevant portions of 35 U.S.C. § 325(d) are reproduced as follows:

In determining whether to institute or order a proceeding under this chapter, chapter 30, or chapter 31, the Director *may* take into account whether, and reject the petition or request because, the same or substantially the same prior art or arguments previously were presented to the Office. (Emphasis added.)

The legislative history also recognizes that 35 U.S.C. § 325(d) “*allows* the Patent Office to reject any request for a proceeding, including a request for



*ex parte* reexamination, if the same or substantially the same prior art or arguments previously were presented to the Office respect to that patent.” 157 Cong. Rec. S1042 (daily ed. Mar. 1, 2011) (statement of Sen. Kyl) (emphasis added).

It is important to note that the Office is not required to reject a petition merely for the reason that the same or substantially the same prior art or arguments were previously considered by the Office. Both the statutory provision and its legislative history include *permissible* language (*e.g.*, “may” and “allows”), rather than *mandatory* language (*e.g.*, “must” or “requires”).

While we are cognizant of the burden on the patent owner and Office to rehear the same or substantially the same prior art or arguments that were considered by the Office in a prior proceeding, there are sufficient reasons in the instant proceeding to exercise our discretion to institute a review. Notably, we observe that Liberty, as the third-party requester in the prior *ex parte* reexamination, did not have the opportunity to submit arguments or evidence with respect to the amended or new claims in the prior proceeding. Those claims are now being challenged in the instant proceeding. And Herrod, which is relied upon by Liberty in the petition, was not previously considered by the Office. Moreover, a preponderance of the evidence supports that it is more likely than not that at least one challenged claim is unpatentable in view of the prior art of record.

Accordingly, taking into account the burden on the patent owner and the considerations set forth in 35 U.S.C. § 326(b) (*e.g.*, the efficient

administration of the Office), we grant the petition as to those grounds that are authorized below, but we exercise our discretion to deny all other grounds as cumulative. *See also* 37 C.F.R. § 42.208. Progressive has the opportunity to file a response with supporting evidence to those grounds that are authorized, but such a patent owner response must be filed within three months from the date of institution (the entry date of this decision). 35 U.S.C. § 326(a)(8); 37 C.F.R. § 42.220. Progressive is not required to address the denied grounds, and should not do so.

## VI. ORDER

For the forgoing reasons, it is

**ORDERED** that pursuant to 35 U.S.C. § 324 and section 18(a) of the AIA, a covered business method review is hereby instituted as to claims 1, 3-6, and 9-18 of the '970 patent for the following grounds:

- A. Claims 4, 5, 16, and 17 are unpatentable under 35 U.S.C. § 103(a) over Kosaka and Florida Guide;
- B. Claims 1, 3, 11-12, 14 and 15 are unpatentable under 35 U.S.C. § 103(a) over Kosaka, Black Magic, and Herrod; and
- C. Claims 6, 9-10, 13 and 18 are unpatentable under 35 U.S.C. § 103(a) over Kosaka and Herrod;

**FURTHER ORDER** that no other ground is authorized for the covered business method review;

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**FURTHER ORDER** that pursuant to 35 U.S.C. § 324(d) and 37 C.F.R. § 42.4, notice is hereby given of the institution of trial; the trial is commencing on the entry date of this decision; and

**FURTHER ORDER** that an initial conference call with the Board is scheduled for 2 PM Eastern Time on February 25, 2013; the parties are directed to the Office Trial Practice Guide, *77 Fed. Reg.* at 48765-66, 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.

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