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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ADAM M. GETTINGS,  
EDDY Y. CHAN,  
and ANDREW G. STEVENS

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Appeal 2017–000661  
Application 14/263,668  
Technology Center 3600

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Before HUBERT C. LORIN, ANTON W. FETTING, and  
JOSEPH A. FISCHETTI, *Administrative Patent Judges*.  
FETTING, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE<sup>1</sup>

Adam M. Gettings, Eddy Y. Chan, And Andrew G. Stevens (Appellants) seek review under 35 U.S.C. § 134(a) of a final rejection of claims 1–8, 10–16, and 18–22, the only claims pending in the application on appeal. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

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<sup>1</sup> Our decision will make reference to the Appellants’ Appeal Brief (“Br.,” filed January 25, 2016) and the Examiner’s Answer (“Ans.,” mailed August 12, 2016), and Final Action (“Final Act.,” mailed August 24, 2015).

The Appellants invented a property monitoring system for monitoring property. Specification para. 14.

An understanding of the invention can be derived from a reading of exemplary claim 7, which is reproduced below (bracketed matter and some paragraphing added).

7. A method for monitoring and valuing property at a first location based on a detected environmental quality factor, the method comprising:

[1] sensing an environmental quality factor at the first location, wherein the sensing comprises sensing with a first environmental sensor system,

and

wherein the first environmental sensor system comprises at least one of a chemical sensor, a carbon dioxide sensor, or a nitrogen sensor;

[2] retrieving from a first data storage system an estimated market value for the property;

and

[3] calculating with a microprocessor a product value for the property

by modifying the estimated market value based on the environmental quality factor using a function

derived from a plot of pricing data and environmental quality data,

wherein the microprocessor receives the environmental quality factor from the first environmental sensor system, the microprocessor receives the market value from the first data storage system,

the environmental quality data is obtained from environmental sensor systems at a plurality of locations, and

the pricing data for property at the plurality of locations is obtained from an inventory management or market price tracking database.

The Examiner relies upon the following prior art:

Stroman et al. US 2008/0097809 A1 Apr. 24, 2008

Frear, Making Soil and Crops Pay more, Copyright 1918

Claims 1–8, 10–16, and 18–22 stand rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter.

Claims 1–8, 10–16, and 18–22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Stroman and Frear.

### ISSUES

The issues of eligible subject matter turn primarily on whether the claims recite more than abstract conceptual advice of what a computer is to provide without implementation details.

The issues of obviousness turn primarily on whether the art describes or otherwise shows to be predictable calculating a product value for the property by modifying the estimated market value based on the data for the environmental quality factor using a function derived from a plot of pricing data and environmental quality data.

## FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

### *Facts Related to Claim Construction*

01. The disclosure contains no lexicographic definition of “plot.”
02. The ordinary meaning of “plot” in the context of data analysis is to represent graphically, or to locate (points or other figures) on a graph, or to draw (a curve) connecting points on a graph.
03. The ordinary meaning of “plot” as a noun in the context of data analysis is a graph.<sup>2</sup> The plain meaning of a graph in the same context is a diagram that exhibits a relationship, often functional, between two sets of numbers as a set of points having coordinates determined by the relationship.<sup>3</sup>

### *Facts Related to Appellants’ Disclosure*

04. Assigning a commercial value to a location monitored by at least one environmental sensor further can include computing a commercial value using a function derived from a plot of pricing data and environmental quality data. Spec. para. 23.
05. The assigning of the commercial value . . . can include computing a commercial value using a function derived from a

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<sup>2</sup> American Heritage Dictionary,  
<https://www.ahdictionary.com/word/search.html?q=plot>

<sup>3</sup> American Heritage Dictionary,  
<https://www.ahdictionary.com/word/search.html?q=graph>

plot of product pricing data and environmental quality data, Spec. para. 25.

06. The only support for the limitation “modifying the estimated market value based on the environmental quality factor using a function derived from a plot of pricing data and environmental quality data” is in Specification paras. 23 and 25, each of which only describes this result with no implementation details.
07. The remaining instances of the word “plot” refer to graphic displays, not functions or data values. Spec. paras. 46, 57, and 68.

*Facts Related to the Prior Art*

*Stroman*

08. Stroman is directed to managing livestock, such as cattle, from conception to consumption. Stroman para. 2.
09. Stroman describes providing a user with a certification system to differentiate animals by collecting certification information on animals from conception to consumption. Collecting certification information may allow users to participate in beef marketing programs, which may increase the revenue potential of an animal. Beef marketing programs may include branded beef programs or any other marketing programs. The certification system may assist a user in selecting a beef marketing program best suited to the user's operation. Upon selecting a beef marketing program, the user may be provided with the program's requirements and may be instructed on how to meet the requirements. Upon completion of a program, the user may receive a notification. The

notification may include a valuation or rating for the user's animal.  
Stroman para. 15.

10. Stroman describes accessing market valuation information, which may be located in the central database. Market valuation information may be used to determine the environmental options for the user. Environmental options may include converting dead carcasses to animal feed, using x amount of manure on the user's fields, etc. Market valuation information may be processed by, for example, adaptive reasoning system 140 or any other knowledge-based tool. Environmental management system 150 may access other systems (e.g., adaptive reasoning system 140, integrated risk management system 125, etc.) to aid in identifying patterns, trends, or causes, and recommending actions. Stroman para. 165.
11. Stroman describes the user being provided with environmental options. The system may present the user with a list, checklist, or any other suitable approach for providing environmental options. The user may select one or more environmental options. In response to the user selecting one or more environmental options, the user may be provided with the steps needed to complete the selected options. Such steps may include tests that may be required at a predetermined time (e.g., once a week, once a month, periodically, etc.) for monitoring resources and the environment. For example, the user may be instructed to periodically monitor the quality of air, water, and soil on the premises and in the surrounding areas. Such tests may depend on the user's region, surrounding area, and the type of operation. Stroman para. 166.

*Frear*

12. Frear is directed to making soil and crops pay more. Frear  
Title.

## ANALYSIS

Initially, we must construe the word “plot” which is relied on in both the arguments as to eligible subject matter and obviousness. The Specification does not lexicographically define a plot. The plain meaning of plot as a noun in the context of data analysis in the claims is a graph, which is a diagram that exhibits a relationship, often functional, between two sets of numbers as a set of points having coordinates determined by the relationship. The only support for the claim limitation in each of the independent claims of “using a function derived from a plot of pricing data and environmental quality data” is from Specification paragraphs 23 and 25 which only repeat the limitation without further describing any implementation. The remaining uses of the word “plot” in the Specification are those of display, consistent with the plain meaning of the word. Thus, a plot is a display (noun) of a diagram, and not the underlying data or analysis thereof. The Specification does not suggest otherwise, and is consistent with this usage.

Thus, we construe the phrase “using a function derived from a plot of pricing data and environmental quality data” as “using a function derived from a display of a diagram of the relationship between pricing data and environmental quality data.” Thus, to meet this limitation, one must derive a



function from the display (noun) of a diagram rather than (or in addition to) the underlying data and any analysis of the data itself.

*Claims 1–8, 10–16, and 18–22 rejected under 35 U.S.C. § 101 as directed to non–statutory subject matter*

The Examiner determines that the claims are directed

to the abstract idea of monitoring property at a first location. The claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception because the additional elements or combination of elements in the claims other than the abstract idea per se amounts to no more than: (i) mere instructions to implement the idea on a computer, and/or (ii) recitation of generic computer structure that serves to perform generic computer functions that are well understood, routine, and conventional activities previously known to the industry.

Final Act. 3.

We adopt the Examiner’s determinations and analysis from Final Action 3–5 and Answer 2–13 and reach similar legal conclusions. In particular, we are not persuaded by Appellants’ argument that claims “are inextricably tied to environmental sensing technology and the related technology used to adjust property values based on a sensed environmental quality factor. Such technology requires specialized hardware and software configured for a particular and concrete purpose.” Br. 8. Appellants do not claim to have invented or improved such sensors, and the claims only recite using such sensors for their ordinary purpose, viz. generating data inputs. The data is then used only to compute some valuation, the epitome of abstraction as discernable only to the human mind.

“When claims like the Asserted Claims are directed to an abstract idea and merely require generic computer implementation, they do not move into section 101 eligibility territory.” *Smart Systems Innovations, LLC v. Chicago Transit Authority*, 873 F.3d 1364 (2017) (citations and internal quotations omitted).

Intellectual Ventures argues that the “interactive interface” is a specific application of the abstract idea that provides an inventive concept. But nowhere does Intellectual Ventures assert that it invented an interactive interface that manages web site content. Rather, the interactive interface limitation is a generic computer element.

*Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1370 (2015).

Because the claims are directed to an abstract idea, the claims must include an “inventive concept” in order to be patent-eligible. No such inventive concept is present here. Instead, the claims “add” only generic computer components such as an “interface,” “network,” and “database.” These generic computer components do not satisfy the inventive concept requirement.

*Mortgage Grader, Inc. v. First Choice Loan Services Inc.*, 811 F.3d 1314, 1324–1325 (2016) (internal citations and quotation marks omitted).

We are not persuaded by Appellants’ argument that

each claim, taken as a whole, amounts to something significantly more than the abstract idea of monitoring property at a first location. Moreover, the claims do not monopolize the idea of monitoring property at a first location. Rather, the claims are directed to systems and methods having a very targeted application, specifically, the application of determining a property valuation by sensing an environmental quality factor at a first location/property with a first environmental sensor system, retrieving from a first data storage system an estimated

market value for the property, and calculating with a microprocessor a product value for the property by modifying the estimated market value based on the data for the environmental quality factor using a function derived from a plot of pricing data and environmental quality data. Such systems and methods are very specific applications of monitoring property which are tied to, and result in, improvements in another technological field-the field of property valuation.

Br. 9. The arguments as to something significantly more and preemption are conclusory with no underlying analysis other than reciting the claim limitations. Those limitations themselves are abstract conceptual advice as to what a computer is to produce devoid of implementation details. “Where a patent’s claims are deemed only to disclose patent ineligible subject matter under the *Mayo* [*Alice*] framework, as they are in this case, preemption concerns are fully addressed and made moot.” *Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015).

The claims as a whole are directed to monitoring and valuing property by modifying one value based on some data from a sensor located at the property. The data relied on is perceptible only in the human mind, and the valuation output is the epitome of abstraction. Using a graph to derive some relationship is an abstract mathematical concept. “If a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.” *Digitech Image Technologies, LLC v. Electronics for Imaging, Inc.*, 758 F.3d 1344, 1351 (2014) (citing *Parker v. Flook*, 437 U.S. 584, 595, (1978)).

We are not persuaded by Appellants’ argument that the claims are similar to those in *Research Corp. Technologies v. Microsoft Corp.*, 627

F.3d 859 (Fed. Cir. 2010). Br. 9. First, *Research Corp. Tech.* predates *Alice*. More to the point the claims in *Research Corp. Tech.* were directed to rendering a halftone image. *Id.* at 868. This was a technical modification to the manner of visual presentation rather than the creation of data perceptible only to the human mind, as with the present claims' valuations.

*Claims 1–8, 10–16, and 18–22 rejected under 35 U.S.C. § 103(a) as unpatentable over Stroman and Frear*

We are persuaded by Appellants' argument that the art fails to describe modifying the estimated market value based on the data for the environmental quality factor using a function derived from a plot of pricing data and environmental quality data. Br. 10. The Examiner cites Stroman paras. 165 and 166. Final Act. 8; Ans. 14. These paragraphs describe derivations by analysis of data, not of data plots as construed according to the plain meaning of "plot" in light of the Specification. The Examiner provides no articulation of reasoned rationale why one of ordinary skill would rely on the plot of data as contrasted with the underlying data itself for derivation analysis.

#### CONCLUSIONS OF LAW

The rejection of claims 1–8, 10–16, and 18–22 under 35 U.S.C. § 101 as directed to non–statutory subject matter is proper.

The rejection of claims 1–8, 10–16, and 18–22 under 35 U.S.C. § 103(a) as unpatentable over Stroman and Frear is improper.

Appeal 2017-000661  
Application 14/263,668

DECISION

The rejection of claims 1–8, 10–16, and 18–22 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2011).

AFFIRMED