

Sedona Patent Litigation XI (October 21-22, 2010)

Statutory Subject Matter: June 28, 2010 – October 1, 2010

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On June 28, 2010, the Supreme Court issued its decision in *Bilski v. Kappos*, holding that the machine-or-transformation test was not the exclusive test for patent eligibility, but that the three traditional exclusions of natural phenomena, abstract ideas, and laws of nature still apply. Since that time, decisions regarding statutory subject matter eligibility have been issued by the USPTO's Board of Patent Appeals and Interferences ("the Board"), and at least one District Court. The Court of Appeals for the Federal Circuit ("the Federal Circuit") has also provided insight into subject matter eligibility in two recently-issued decisions, and the Supreme Court denied *cert.* for a case involving subject matter eligibility on the day after its decision in *Bilski v. Kappos*. A summary of each of these decisions follows, along with a look at several cases waiting on appeal to the Federal Circuit. Decisions issued by the Board have been separated into two categories: (1) claims found to be statutory; and (2) claims found to be non-statutory.

BOARD OF PATENT APPEALS AND INTERFERENCES

(1) Statutory post-*Bilski*

Ex Parte Goldberg – July 14, 2010

Panel: C. Krivak, M. Hoff, E. Mercader

Holding: Statutory as directed to a computer program product

Representative claim:

1. A computer implemented system for managing a flow of network status messages to a network operations console, comprising:
 - a processor; and
 - a computer readable medium encoded with processor readable instructions that when executed by the processor implement:
 - a network status gathering mechanism configured to gather and ascertain network status information from a plurality of switches,

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a network status reporting mechanism configured to report said network status to said network operations console, and

a network status reporting level determination mechanism configured to determine, on a switch by switch basis, a level of detail at which to report said network status to said network operations console based on a user request and a predetermined allocation of bandwidth for use in reporting network status.

The Examiner had found that a computer program product was not patentable subject matter. The Board reversed that rejection. Specifically, the board indicated that the computer readable medium has computer code embedded therein to control a processor. Notably, "[a]lthough the Examiner is correct that the computer program is made up of zeros and ones, Appellants are not claiming a computer program nor are they claiming a computer storage medium as alleged by the Examiner." Rather, the claims were directed to a computer program product that included a computer storage medium. Although the Board's decision referenced a "computer storage medium," claim 1 does not recite the "storage" language and was still found statutory.

Ex Parte Phoenix – July 19, 2010

Panel: T. Dang, J. Jeffery, L. Barrett

Holding: Statutory as tied to a particular machine

Representative claim:

1. A computer implemented method for comparing a first object and a second object in an object-oriented operating system comprising the steps of:
 - (a) determining whether the first object is equal to the second object; and if said objects are not equal;
 - (b) obtaining one or more methods from said first object and said second object;
 - (c) determining whether the one or more methods from said first object are equal to the one or more methods from said second object; and
 - (d) recursively performing steps (b) and (c) until all of the methods for the first object and the second object have been obtained;
 - (e) generating a document comprising a listing of differences between the methods;
 - (f) transforming the document into a human-readable form; and
 - (g) displaying the human-readable form to a user.

The Board reversed a § 101 rejection, holding that a computer implemented method that compares objects in an object-oriented operating system requires performance on a computer and is therefore tied to a machine. The Board also noted that although claim 1 recites an algorithm in its determining steps, the claim also requires non-algorithmic steps, namely the obtaining, generating, transforming, and displaying steps. As such, the claimed method "would not patent an abstract idea or pre-empt any other uses of the mathematical formula, but rather give a limited right to exclude of the claimed computer-implemented method to the Appellant."

Ex Parte Havlick – August 11, 2010

Panel: B. Mohanty, H. Lorin, C. Thomas

Holding: Examiner's rejection overturned as using an inadequate analysis

Representative claim:

21. A computer implemented method for presenting information associated with a trademark search for a first trademark, the method comprising:
generating a graph having a first axis and a second axis utilizing a computer, wherein the point of origin of the graph comprises the intersection of the first and second axis;
creating first and second goods/services descriptions, the first goods/services description being identical to the goods/services description associated with the first trademark and the second goods/services description being different than the first goods/services description;
placing, utilizing a computer, the first goods/services description at a point on the first axis of the graph closest the point of origin of the graph and thereafter placing the second goods/services description at a point on the first axis of the graph away from the point of origin;
creating first and second mark descriptions, the first mark description being identical to the mark description associated with the first trademark and the second mark description being different than the first mark description; placing, utilizing a computer, the first mark description at a point on the second axis of the graph closest the point of origin of the graph and thereafter placing the second mark description at a point on the second axis of the graph away from the point of origin; and
populating, utilizing a computer, the graph with at least one data point corresponding to a mark from the trademark search by plotting the data point using the goods/services description and the mark description associated with the mark from the trademark search.

The Examiner analyzed the claims using only a useful, concrete, and tangible result analysis, which was "inadequate to determine alone if the claims are drawn to non-statutory subject matter." Accordingly, the Examiner's rejection could not be sustained.

Ex Parte Maxson – August 17, 2010

Panel: J. Hughes, J. Jeffery, J. Lucas

Holding: Statutory as being implemented on a machine

Representative claim:

1. A reseller program utilizing a computer network for allowing a plurality of Customers to register one or more domain names via a registrar web site, comprising:
A) means for accepting a plurality of Resellers into a reseller program, wherein each Reseller has at least one reseller web site;
B) means for creating a registrar web site for registering domain names with an appropriate Registry web site;

C) means for allowing a plurality of reseller web sites to register one or more domain names for one or more customers via the registrar web site; and

D) means for collecting a fee from each Reseller web site that registers a domain name for a Customer via the registrar web site.

The Board interpreted the claims as utilizing a computer network to register domain names. "Consequently, Appellants' claims implicate the use of machines including the explicitly stated computer network, and various specially programmed computers for implementing websites – software operating on computer servers accessible by a network of computers (the Internet)." Since the claims implicated use of a machine, they were directed to statutory subject matter.

Ex Parte Ludtke – August 18, 2010

Panel: J. Jeffery, J. Lucas, J. Hughes

Holding: Statutory as being directed only to non-transitory subject matter

Representative claim:

64. A computer-readable medium tangibly embodying program instructions for managing images with an image manager by performing the steps of:
generating content information from an information source;
storing said content information in a storage device of said image manager; and
managing said content information with application software executed by a processor to thereby manage said images.

The Examiner argued that claim 64 was directed to program instructions, and that the recited computer readable medium was not the claimed invention. The Board disagreed, noting that the specification described the computer-readable medium to include "a memory stick, a flash memory device, a compact disk, a mini-disk, and a floppy disk." Importantly, the Board notes that the specification "does not contemplate signals or carrier waves." Accordingly, although some computer-readable media can constitute non-statutory subject matter under certain circumstances, that was not the case here.

Ex Parte Chan – August 20, 2010

Panel: T. Dang, S. Courtenay, D. Stephens

Holding: Statutory as being tied to a machine

Representative claim:

1. A component based data processing system comprising:
a plurality of content repositories, each of the content repositories conforming to a uniform data structure, but having different values for fields of the data structure;
a business context service;

a runtime environment configured for coupling to the business context service;
a component based application supported by the runtime environment, the component based application comprising at least one component comprising business logic and data access logic; and,

repository mapping logic coupled to the component based application and business context service, the repository mapping logic comprising program code enabled to map at least one of the content repositories to the data access logic based upon a context for a transaction received from the business context service.

The claims at issue recited "a component based application supported by the runtime environment." The Board found "that an application supported by the runtime environment requires performance on a computer." Accordingly, the claims were directed to a machine and were not software per se.

Ex Parte Dureau – August 25, 2010

Panel: K. Hairston, R. Nappi, M. Saadat

Holding: Statutory as being directed to non-transitory subject matter.

Representative claim:

26. A computer readable storage medium comprising program instructions, or triggers to launch execution of program instructions, wherein the program instructions are executable by a computing device to:

update a user profile responsive to a first user activity, the first user activity being initiated via a first device;

detect a second user activity, the second user activity being initiated via a second device which is different from the first device, wherein either

(i) the first user activity comprises an activity related to television viewing and the second user activity comprises an activity unrelated to television viewing, or

(ii) the first user activity comprises an activity unrelated to television viewing and the second user activity comprises an activity related to television viewing;

access the user profile in response to the second user activity; and

transmit data to a user responsive to the second user activity, wherein the transmitted data is based at least in part on the user profile, and wherein the first user activity affects a content of said data transmitted to the user responsive to the second user activity.

Because the claims recited a "computer readable storage medium" and because a signal is not a storage medium, the claims were not directed to an intangible signal. Rather, the claims were directed to statutory subject matter.

Ex Parte Monteleone – September 1, 2010

Panel: L. Barry, S. Courtenay, C. Thomas

Holding: Statutory as directed to hardware

Representative claim:

14. A user interface system providing a trend indicative display of patient medical parameter fluid data showing patient parameter acquisition time intervals, comprising:
an acquisition processor acquiring, from a patient monitoring device, data representing a patient parameter; and
a processor initiating, in response to user command, generation of data representing at least one display image comprising a trend indicative display of,
said patient fluid parameter, and
a data item associated with said patient fluid parameter, and with a property indicating at least one of, (a) said data item represents volume data to be used in patient fluid infusion or output calculation, and (b) said data item represents a rate for use in calculation of volume of patient fluid infusion or output.

The representative claim was rejected by the Examiner as being directed to non-statutory subject matter, as the Examiner interpreted a "processor" as an "executable application" and therefore software per se. However, the specification stated that the claimed system may be "executable applications or processors operative to carry out instructions for performing the various functions" (emphasis added by the Board). Because the specification differentiated between executable applications and processors, the Board interpreted the term "processor" in the claim to require hardware rather than an executable application. Accordingly, the claims were deemed statutory.

Ex Parte Boyce – September 14, 2010

Panel: M. Hoff, A. MacDonald, R. Nappi

Holding: Statutory as directed to a tangible medium

Representative claim:

18. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform program steps for decoding video signal data for a picture having a plurality of motion blocks, the program steps comprises:
receiving a reference picture index with the data for a current motion block, the index independently indicating, without use of another index, a reference picture from which the current motion block is predicted and a weighting factor from a set of weighting factors for the current motion block;
retrieving the indicated reference picture corresponding to the received reference picture index;
motion compensating the retrieved reference picture; and
varying the motion compensated reference picture by the indicated weighting factor to form a weighted motion compensated reference picture.

The Examiner had rejected the representative claim as nonstatutory "because a program storage device is merely a storage medium for holding a set of instructions capable of being

executed by a computer." The Board disagreed, stating as a principle of law that "[w]hen functional descriptive material is recorded on some (tangible) computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized."

Ex Parte Comer – September 16, 2010

Panel: M. Hoff, C. Thomas, E. Mercader

Holding: Statutory as directed to tangible subject matter

Representative claim:

12. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform steps for performing fine-grain scalable video data operations, the steps comprising:

encoding input video data as minimum bitrate macroblock data to produce DCT data having DCT coefficients representing a minimum bitrate version of the macroblock data;

encoding the input video data as intermediate bitrate macroblock data to produce DCT data having DCT coefficients representing an intermediate bitrate version of the macroblock data; and

compensating the encoded data to predict whether a decoded version of the intermediate bitrate macroblock data will have an accumulated predicted drift error frame energy exceeding a maximum threshold.

The Examiner asserted that reciting the claimed "program storage device" was not the same as including "recorded on a computer-readable medium" in the preamble, and was therefore non-statutory as not defining a computer-readable medium. The Board disagreed, indicating that the disclosure in the specification related to a "program storage device readable by machine" was equivalent to a "computer-readable medium." Therefore, the claim recited statutory tangible subject matter.

Ex Parte Jung – September 20, 2010

Panel: A. Fetting, M. Crawford, B. Mohanty

Holding: Statutory as being tied to a machine

Representative claim:

1. Method for purchasing and authenticating an electronic ticket, comprising the steps of:

a) receiving a ticket request from a user system and generating an electronic ticket image data including a ticket identifier in response to the request;

b) encrypting the generated electronic ticket image data and sending them to the user system;

c) forwarding the encrypted electronic ticket image data from the user system to an associated user wireless communication terminal;

d) decrypting the encrypted electronic ticket image data and displaying them on a screen of the terminal; and

e) checking the validity of the ticket by reading the electronic ticket image data displayed on the screen of the terminal.

The Examiner had evaluated the claims based on the machine-or-transformation test, and found them lacking. The Board disagreed, stating that the method claims were tied to system elements, such as "a user system, a wireless communication terminal, and a screen of the wireless communication terminal." The Board noted that although the machine-or-transformation test was not the only test for determining patent eligibility, the claims met the machine prong of the test and were therefore patent-eligible.

Ex Parte Darrell – September 20, 2010

Panel: M. Crawford, A. Fetting, B. Mohanty

Holding: Statutory as being tied to a machine

Representative claim:

18. A system for presenting an image of a receipt to a consumer, comprising:
means for receiving an electronic image of a receipt;
means for storing the image;
means for receiving a request from a computer relating to the consumer to display the image;
means for transmitting the image to the consumer computer;
means for obtaining product information relating to an item on the receipt; and
means for categorizing a plurality of items on a receipt into user-definable categories according to the product information.

The specification included various structural items, such as an image capture device, host computer system, database, and financial statement processing computer, "a corresponding to the various 'means'." The Board indicated that these devices provided "sufficient structure to meet the machine prong of the machine-or-transformation test." Therefore, the claims were deemed statutory.

Ex Parte Kirkland – September 22, 2010

Panel: J. Lucas, J. Jeffery, J. Hughes

Holding: Statutory as not directed to software per se

Representative claim:

8. A data processing system to search for Web pages within a Web site, the data processing system comprising:

receiving means for receiving a search statement as a result of a user input, wherein the search statement includes a universal resource identifier and a regular expression;
retrieving means for retrieving universal resource identifiers associated with the universal resource identifier in the request to form retrieved universal resource identifiers;
parsing means for parsing the retrieved universal resource identifiers for the regular expression to form search results; and
returning means for returning the search results, wherein the search results include a list of universal resource identifiers associated with the Web pages within the Web site.

The Examiner had rejected claims as being directed to software per se. The Board disagreed, finding that at least one hardware structure described in the specification corresponded to each "means" recited in claim 8. As such, the claims were statutory.

Ex Parte Griffith – September 21, 2010

Panel: S. Siu, J. Dixon, T. Dang

Holding: Statutory as not being directed to software per se

Representative claim:

39. A knowledge system for solving a problem identified by a user, the knowledge system comprising:
a display device;
an interactive development environment ("IDE") comprising a graphical user interface ("GUI") presented on the display device for enabling a user to enter and modify a collection of knowledge data comprising a plurality of knowledge data elements defining strategy for solving the identified problem, wherein the IDE causes each of the knowledge data elements to be represented on the display device by an object having at least one visual characteristic indicative of a type of the represented knowledge data element and further causes a relationship between related knowledge data elements to be graphically represented on the display device by a link between the objects representing the related knowledge data elements;
a knowledge engine for converting the collection of knowledge data to an internal format;
a database for storing the collection of knowledge data; and
means for processing the converted collection of knowledge data to solution and providing the solution to a user.

The Examiner asserted that the claimed invention was not "limited to practical applications that indicate a specific practical utility." The Board noted, however, that the output of the claim "entails graphically displaying a relationship between knowledge data elements." Since the Examiner did not show that this output was insignificant postsolution activity, the Board determined that the "display device output limitations preclude a reasonably broad interpretation of the claim language as encompassing merely an algorithm or software per se." Accordingly, the claims were deemed statutory.

Ex Parte Butler – September 22, 2010

Panel: M. Crawford, H. Lorin, J. Fischetti

Holding: Statutory as being tied to a machine

Representative claim:

1. A method of processing electronic assurances involving a requestor, a provider and an authority interconnected via a network, wherein the requester, the provider, and the authority are separate entities from one another, the method comprising:
 - the provider registering with the authority, a standard for supplying a particular good or service;
 - the requestor acquiring, from the authority, a public key having a corresponding private key, said private key being retained by the authority;
 - the requestor sending, to the provider, a request for assurance of a standard of a particular good or service;
 - comparing the registered standard and the requested standard for the particular good or service, and upon a valid comparison, sending an assurance document signed, with the private key, back to the requestor; and
 - the requestor verifying using the public key that the assurance document was validly signed, wherein the requestor can be confident that the standard in the signed assurance document has been provided by the authority.

The Board noted that the claims recited "public/private key encryption integrated into multiple steps." Since "[s]uch encryption requires a computer in more than a field-of-use capacity," the claims were held to be directed to statutory subject matter.

Ex Parte Rangarajan – September 23, 2010

Panel: K. Hairston, R. Nappi, M. Saadat

Holding: Statutory as reciting descriptive matter that causes functional change in a computer

Representative claim:

1. A computer-readable medium tangibly encoded thereon a data structure, the data structure comprising:
 - a first search node;
 - a first child array including a first internal node and a second search node; and
 - a first leaf array including a plurality of first leaf array entries;wherein the first search node includes a pointer to the first child array;
wherein the first internal node includes a pointer to the first leaf array; and
wherein the second search node includes a pointer to one of the plurality of first leaf array entries.

The Examiner asserted that the claim elements merely recited descriptive material that was not capable of causing a functional change in a computer. The Board disagreed. Specifically, the Board indicated that the claims "define a structural or functional interrelationship between the data structure (including nodes, arrays, and pointers) and the computer-readable medium that allows the functionality of the data structure (searching including pointing to arrays and array entries) to be realized." Because the descriptive language was functional, the claims were held to be statutory.

Ex Parte Courson – September 27, 2010

Panel: H. Lorin, M. Crawford, A. Fetting

Holding: Statutory as being directed to a machine

Representative claims:

1. A tool for developing litigation discovery materials, the tool comprising:
 - an entry field available on a plurality of views not directly related to discovery to request collection of discovery requests;
 - a menu for gathering discovery related information in response to a request using said entry field;
 - storage of discovery related information gathered from said menu;
 - form discovery materials; and
 - a discovery production mechanism to combine stored discovery related information and form discovery materials to produce discovery items for use in the litigation.

5. A tool for recommending a decision in litigation, the tool comprising:
 - interfaces for gathering selected information relevant to the decision;
 - storage for the gathered selected information;
 - weighting values associated with each element of selected information;
 - an analyzer for using the stored selected information and the associated weighting values to determine a resultant value;
 - resultant values associated with various decision options; and
 - a recommendation element using the determined resultant value and the associated decision options to provide a recommended decision.

The Board found that claim 1 and its dependents were unclear on the statutory class in which they fell. Namely, the "discovery production mechanism" was described in the specification as a "computer-implemented process." Because the claim would then recite a step in conjunction with devices, the statutory class could not be determined and a decision on § 101 could not be made. Further, other than the "storage," it was not clear which elements could be construed as devices.

With respect to claim 5, however, the Board indicated that claim 5 was directed to an apparatus. Specifically, the Board construed each of the recited features in the claim as structural, and thus found that the claim as a whole was structural. Therefore, the claim was held to be directed to statutory subject matter.

(2) Non-Statutory post-*Bilski*

Ex parte Walker – June 30, 2010

Panel: T. Hahn, K. Hairston, and B. Baumeister

Holding: Non-statutory as reciting transitory subject matter

Representative claim:

10. A computer readable medium encoded with computer executable instructions for causing on or more computers to perform the method according to claim 1 when the instructions are executed by the computer or computers.

A § 101 rejection for claims reciting a "computer readable medium encoded with computer executable instructions" was raised sua sponte by the Board. The specification stated that "any or all of the software used to implement the invention can be contained on various transmission and/or storage mediums such as a floppy disc, CD-ROM, or magnetic tape so that the program can be loaded onto one or more general purpose devices or could be downloaded over a network using a suitable transmission medium." The Board read this to cover both non-transitory and transitory subject matter. Therefore, the claims were determined to be directed to non-statutory subject matter.

Ex Parte Proudler – July 12, 2010

Panel: J. Thomas, T. Dang, and C. Thomas

Holding: Non-statutory as reciting software per se; non-statutory as reciting transitory subject matter

Representative claim:

33. A method of controlling processing of data, wherein the data comprises a plurality of rules associated with a plurality of data items comprising a set of logically related data items, each data item in the set having a rule associated therewith, said rules acting to individually define usage and/or security to be observed when processing each of the data items in the set of data items, and in which forwarding of the set of data items is performed in accordance with mask means provided in associated with the rules.

A § 101 rejection was raised sua sponte by the Board. The claims were held to be non-statutory as directed to abstract subject matter. Specifically, the Board stated that no true hardware structure was cited. Although some claims reference a "computer apparatus," the claims characterize the apparatus in terms of programming. Additionally, the specification indicated that a computing entity could be either hardware or software.

A computer readable medium claim was also held to be non-statutory, because the claim was directed to communications media and therefore "inclusive of transitory signaling embodiments."

Ex Parte Birgir – July 15, 2010

Panel: J. Thomas, M. Saadat, C. Whitehead

Holding: Non-statutory as reciting software per se; non-statutory as reciting transitory subject matter

Representative claim:

1. A method for communicating between two endpoints connected to a network, the method comprising having a first endpoint use a global address of a second endpoint to communicate with the second endpoint, wherein:

the global address specifies a protocol, a network identifier, and an address meaningful for the combination of the protocol and a network identified by the network identifier,

an application sends messages directed to the second endpoint through an identity-based communication layer that is situated between a network layer and an application layer, the messages being independent of the protocol, and

the identity-based communication layer transmits the messages to the second endpoint using the protocol, the network, and the address specified by the global address.

A § 101 rejection was raised sua sponte by the Board, rejecting the claims as software per se. Claims directed to computer-readable media were deemed non-statutory as "plainly directed to internet communications as disclosed in addition to the intent to directly claim software per se. Thus, the medium includes and encompasses signals per se, and because it is disclosed to be directed to internet-based communications media, these medium claims are inclusive of transitory signaling embodiments." System claims were rejected, because a processor recited in the claims "is not necessarily hardware or a computer itself, and no computer is directly claimed either in the preamble of this claim or the body of the claim."

Ex Parte Allen – July 22, 2010

Panel: B. Baumeister, A. MacDonald (Vice Chief APJ), R. Nappi

Holding: Non-statutory as directed to software per se

Representative claim:

1. A service level agreement (SLA) breach value estimator comprising:

a communicative coupling to data produced for at least one resource; and,

a further communicative coupling to a user interface through which an SLA breach value estimate is proposed; and,

at least one SLA breach value estimation process selected from the group consisting of an aggregated process, a specific customer process, a customer resource subset process, and a predictive process.

The specification indicated that "[t]he present invention can be realized in hardware, software, or a combination of hardware and software." The Appellants argued that a claim should be found statutory when the claim could be broadly read to include hardware. The Board disagreed, stating that "[a] patent claim must be limited so as to exclude covering nonstatutory subject matter in order to avoid a rejection under 35 U.S.C. § 101." If a claim is broad enough to cover both statutory subject matter and non-statutory subject matter, then the claim is subject to rejection under § 101.

Ex Parte Caccavale – July 23, 2010

Panel: J. Lucas, J. Jeffery, J. Dixon

Holding: Non-statutory as directed to an abstract idea

Representative claim:

8. In a data processing system including distributed processing units, a method of analysis of performance of the data processing system, said method comprising:

each of the distributed processing units accumulating performance parameters including response time measurements and workload across intervals of time, said each of the distributed processing units storing the performance parameters accumulated by said each of the distributed processing units in an industry standard database in said each of the distributed processing units; and

accessing the industry standard databases over the data processing system to retrieve the performance parameters accumulated by the distributed processing units, and determining a measure of performance of the data processing system from the retrieved performance parameters;

wherein the industry standard database is the Windows Management Instrumentation database, and the method includes said each distributed processing unit using an operating system to store the performance parameters accumulated by said each of the distributed processing units in the Windows Management Instrumentation database;

wherein the measure of performance of the data processing system is a measure of metric entropy of the data processing system, and the measure of metric entropy of the data processing system is computed from the performance parameters retrieved from the industry standard database by computing an average response time over the distributed processing units, computing a histogram of the average response time over the distributed processing units, and computing the measure of metric entropy of the data processing system from the histogram.

The Board held that the computation steps in the claims were the main components of the invention, yet not required to be performed by the "distributed processing units" recited in the claims. The storing functions attributed to the "distributed processing units" were deemed "insignificant extra-solution activity." Accordingly, the claims failed the machine-or-transformation test. The Board further analyzed the claims to determine whether they were directed to abstract ideas. The Board indicated that the claims merely involved "a process of statistical analysis computations," which were comparable to the algorithm of *Gottschalk v. Benson*. Therefore, the claims were held to be directed to abstract ideas.

Ex Parte Brenner – July 28, 2010

Panel: K. Hairston, R. Nappi, M. Saadat

Holding: Non-statutory as directed to an arrangement of data without any function

Representative claim:

1. An audio file stored in a computer readable medium, the audio file including definitions for one or more instruments, wherein the one or more instrument definitions are each exclusively associated with a corresponding one of one or more light groupings, where each light grouping includes one or more light sources.

The Board indicated that the definitions on the audio file constituted descriptive material, which would not be given patentable weight "obvious a new and unobvious functional relationship between the descriptive material and the substrate." The Board further noted that the claims do not recite any function – "i.e., there is no recitation of a light actually being controlled by the data arrangement of the audio file." Because the audio file was claimed on its own, and not as controlling any further actions, the claims were held to be directed to non-statutory subject matter.

Ex Parte Fellenstein – July 29, 2010

Panel: J. Thomas, J. Sourtenay, J. Hughes

Holding: Non-statutory as directed to software per se; non-statutory as directed to transitory subject matter

Representative claim:

21. A method of identifying optimal times for an end user to contact a target user of a messaging system, comprising detecting messaging system events, recording the messaging system events in a database, compiling statistical usage data from the messaging system events, and displaying the target user's statistical usage data on an output device; wherein the statistical usage data is adapted to allow the end user to determine a best time to contact the target user for a messaging session by providing a plurality of data regarding the target user's times for signing in and signing out, the target user's average time signed on each day, and the target user's messages sent and received.

A § 101 rejection was raised sua sponte by the Board. The specification indicated that "[t]he present invention is a methodology that can be embodied in a computer program." As such, the Board interpreted the claims to be directed to software per se. Additionally, the Board interpreted a "computer readable storage medium" claim as "presumptively includ[ing] transitory signal embodiments."

Ex Parte Choo – July 29, 2010

Panel: J. Jeffery, L. Barry, J. Hughes

Holding: Non-statutory as directed to software per se; non-statutory as directed to an abstract idea

Representative claim:

1. A computer system for controlling access to certain files by processes, said computer system comprising:
 - compartments implemented on an operating system;
 - a database containing access rules, said access rules defining which compartments are authorized to access particular file resources;
 - a kernel module the receiving a system call to access a file from a user space application belonging to a compartment; and
 - a security module for determining whether said user space application is authorized to access said file utilizing access rules stored in said database.

The Board indicated that each of the claim elements is "no more than code or data located in an address space...having code to perform various routines." Since "the invention can exist solely in software and data structures," the claims are directed to non-statutory subject matter. In responding to the Appellants argument that the preamble of the claim recites a "system" and thus a machine, the Board indicated that the claim must be construed in its entirety. Here, the Board interpreted the "system" as merely being an intended use. A method claim reciting similar functionality was held not to satisfy the machine-or-transformation test, and thus was held to be directed to an abstract idea. The Board did not present any analysis outside of the machine-or-transformation test for determining that the claim was directed to an abstract idea.

Ex Parte Johnson – August 2, 2010

Panel: S. Siu, L. Barry, D. Stephens

Holding: Non-statutory as directed to software per se

Representative claim:

17. A system for authenticating a transaction comprising:
 - logic configured to receive a user ID;
 - logic configured to compute a message digest of the user ID;
 - logic configured to select an index number;
 - logic configured to combine the message digest with expiration timestamp;
 - logic configured to select an encryption key from a plurality of encryption keys using the index number;
 - logic configured to encrypt the combined message using the selected encryption key; and
 - logic configured to convert the encrypted message into an ASCII string.

The Appellant argued that since the claim was directed to a system, it should be considered patent-eligible. The Appellant further argued that the claim should be patentable because other patents have issued with claims similar to those rejected. The Board disagreed, indicating that the claim was directed to software per se, and that other issued patents were irrelevant to the claim at issue. Specifically, "[t]he boundaries of patentable subject-matter are challenging to map precisely, with controlling case law in a constant state of flux as the universe of clues to patent-eligibility is explored."

Ex Parte Elkins – July 30, 2010

Panel: J. Thomas, J. Jeffery, J. Dixon

Holding: Non-statutory as being directed to an abstract idea

Representative claim:

1. A method for modeling distributed generation for a customer, comprising:
 - obtaining a projected electric consumption profile for the customer for a period of time that is divided into a plurality of time periods;
 - obtaining a projected electricity cost that projects the cost of electricity purchased from an electric provider for the period of time, the projected electricity cost being associated with one or more of the plurality of time periods;
 - obtaining operating parameters for one or more generators, the operating parameters including an electrical generator capacity and heat rate information; obtaining a projected fuel price for one or more fuels to be used by the one or more generators for the period of time;
 - determining a projected generator operating cost to generate electricity using a generator from the one or more generators based on the projected electric consumption profile for the plurality of time periods of the period of time, the projected generator operating cost determined using at least the operating parameters associated with the generator and the projected fuel price of the fuel to be used by the generator;
 - generating a projected dispatch operation schedule of the generator by comparing, for the plurality of time periods, the projected generator operating cost of the generator to the projected electricity cost of electricity purchased from an electric provider for the plurality of time periods of the period of time; and
 - generating a revised projected electric consumption profile for the customer by subtracting the projected dispatch of the generator for the plurality of time periods from the projected electric consumption profile.

A § 101 rejection was raised sua sponte by the Board. The Board likened the claims to mathematical modeling functionality, and thus abstract ideas. In particular, the Board noted that the end result of each independent claim "is a computed, characterized numeric value similar to the computed updated alarm limit data values proscribed by *Parker v. Flook*. The numeric value resulting from the data gathering and mathematical computations of the present claims on appeal falls short of being utilized in any manner to perform a corresponding control function of a physical machine."

Ex Parte Anderson – August 3, 2010

Panel: J. Homere, D. Stephens, J. Hughes

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

27. A computer program product for mirroring database statistics, the computer program product disposed upon a signal bearing medium, the computer program product comprising:
computer program instructions that receive by a backup application of a backup computer in real time a journal entry representing a requirement for backup database statistics; and
computer program instructions that generate by a statistics engine of the backup computer backup database statistics for a backup database in accordance with the journal entry.

The specification indicated that a "computer program product disposed upon a signal bearing medium," as recited in the claims, includes transmission media. The Board interpreted that as including a computer data signal embodied in a carrier wave. The Board distinguished the claims at issue from a statutory claim in *In re Nuijten*, which recited "a storage medium having stored thereon a signal embedded with supplemental data." That statutory claim was directed to a manufacture, while the claims at issue included a transitory signal that did not fall within any of the four classes of statutory subject matter.

Ex Parte Morimoto – August 4, 2010

Panel: H. Lorin, J. Fischetti, F. Prats

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

21. A computer program embodied on a computer-readable medium, wherein the computer program comprises a plurality of instructions, wherein the plurality of instructions is executable to:

detect a purchase by a customer connected to the computer system via a network;
determine which method of payment the customer has specified for the purchase;
obtain a guarantee for the payment via the network based on the type of payment specified by the consumer; and
record the payment as income in a general ledger database hosted on the computer system, wherein the plurality of instructions is executable to obtain the guarantee and record the payment as income substantially in real time with respect to determining which method of payment the customer has specified for the purchase.

A § 101 rejection was raised sua sponte by the Board. Although the specification did not specifically indicate that a computer-readable medium could be a signal, the Board noted "that the Specification is silent as the meaning of 'computer-readable medium.'" The Board therefore construed the claim, under its broadest reasonable construction, to encompass "forms of the

computer program code being embodied on transitory propagating signals per se." As a signal was not included in one of the four statutory subject matter categories under § 101, the claims were found non-statutory.

Ex Parte Heuer – August 6, 2010

Panel: J. Lucas, S. Siu, D. Stephens

Holding: Non-statutory as directed to an abstract idea

Representative claim:

19. A method for improved decoding of a binary representation of a[n] XML-based document, comprising the steps of:

 associating the binary representation of the XML-based document to a name space or schema, wherein the XML-based document contains only elements or types of a name subspace of the name space or of a simplified schema of the schema;

 transmitting the name subspace or simplified schema to at least one decoder; transmitting a correction code to the at least one decoder;

 performing a code substitution of the name subspace or simplified schema to codes of the name space or schema using the correction code; and

 decoding, via the decoder, the binary representation of the XML-based document in accordance with the name space or schema from the name subspace or simplified schema with the aid of the correction code.

The Board notes that the claims do not satisfy the machine-or-transformation test. However, the Board further analyzes the claims "under the Supreme Court's precedential tool for determining whether a process is an abstract idea as discussed in *Bilski* (citing *Gottschalk v. Benson*)." The Board drew a comparison between the present claims ("a formula for converting (*i.e.*, 'decoding' or coding) a schema from the claimed 'simplified schema'") with the "idea for converting BCD numerals to pure binary numerals in *Benson*. Accordingly, the claims were held to be directed to an abstract idea.

Ex Parte Ramanujam – August 12, 2010

Panel: D. Stephens, T. Dang, C. Thomas

Holding: Non-statutory as directed to software per se

Representative claims:

1. An apparatus comprising:
 - a destination storage location corresponding to a first architectural register;
 - a functional unit to process a packed format values by converting, responsive to a control signal, a first packed first format value in a first format selected from a first plurality of packed first format values in the first format to a first plurality of second format values, said first packed first format value having a plurality of sub elements each having a first number of bits, each of

the first plurality of second format values being a number represented in a second format and having a second number of bits which is greater than the first number of bits, said functional unit to store all of said first plurality of second format values into said first architectural register.

20. A method comprising:

a module fetching a first instruction that specifies a location of a first format value in a first format among a plurality of first format values of a packed data, the first format value having a plurality of sub elements each sub element having a first number of bits;

a functional unit processing the first format value by converting the first format value to a first plurality of second format values in a second format, each of the first plurality of second format values having second format and corresponding to one of the plurality of sub elements, the second format having a multiple of the first number of bits;

storing the first plurality of second format values into a first register.

32. A tangible machine readable medium carrying an Instruction, which if executed by a machine, causes the machine to perform the operations of:

converting an integer value, the integer value being among a plurality of integer values of a packed data and having a first integer format having a plurality of sub elements each having a first number of bits, to a plurality of floating point values; each of the plurality of floating point values having a first floating point format, the first floating point format having a multiple of the first number of bits;

storing the plurality of floating point values into a first register.

The Board found that the elements of claim 1 had no structural limitations, and were therefore "concepts, not components." As such, the claim recited software per se and "do not permit the computer program functionality to be realized." Regarding claim 20, the Board concluded that "these concepts of fetching and processing data are not patentable processes but attempts to patent a mathematical algorithm – converting a value in one format to a value in another format."

Regarding claim 32, the Appellants argued that the claim was statutory under *In re Beauregard*. The Board stated that although a machine readable medium having functional descriptive material is statutory in most cases, this particular claim did not "recite a data structure or any interaction with a physical thing." The Board further noted that "limiting the claim to machine-readable media does not add any practical limitation to the scope of the claim" over the rejected method claims, and would "exalt form over substance" if found to be statutory.

Ex Parte Corvin – August 13, 2010

Panel: H. Lorin, A. Fetting, J. Fischetti

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

56. A program for facilitating a purchasing transaction between a medical resource supplier and a client, comprising:

a machine readable medium; and
machine readable code disposed on machine readable medium and adapted for:
providing access to a transaction system for a medical resource supplier via a
network;
providing an interface for exchanging information between a client and the
transaction system, wherein the interface has fields for entering client data;
receiving the client data from the interface via the network, wherein receiving the
client data comprises receiving client trade-in information for a purchasing transaction for
medical resources;
financially analyzing at least a portion of the client data with a financial analysis
system operative on the transaction system;
generating a plurality of purchasing options tailored to the client data; and
transmitting the plurality of purchasing options to the client via the network,
wherein the plurality of purchasing options comprise lease and loan options.

A § 101 rejection was raised sua sponte by the Board. Although the specification did not specifically indicate that a computer-readable medium could be a signal, the Board noted "that the Specification is silent as the meaning of 'computer-readable medium.'" The Board therefore construed the claim, under its broadest reasonable construction, to encompass "forms of the computer program code being embodied on transitory propagating signals per se." As a signal was not included in one of the four statutory subject matter categories under § 101, the claims were found non-statutory.

Ex Parte Jordan – August 17, 2010

Panel: S. Courtenay, H. Blankenship, S. Siu

Holding: Non-statutory as directed to software per se

Representative claim:

8. A computer program product for installing at least one file onto a data processing system, the computer program product comprising:
a computer readable medium having computer readable program code embodied thereon, the computer readable program code comprising:
first computer readable program code configured to build a list of install components, wherein each install component comprises a payload component containing a file to be installed onto the data processing system, a metadata component containing instructions for how the file should be installed onto the data processing system, and a configuration actions component containing instructions for configuring the file;
second computer readable program code configured to interpret the metadata component of each install component;
third computer readable program code configured to configured to carry out the metadata instructions of each install component;
fourth computer readable program code configured to deploy the configuration actions component of each install component such that the file of each install component may be configured;

fifth computer readable program code configured to incorporate the metadata component and the configuration actions component into the computer program product; and
sixth computer readable program code configured to install the file of each install component onto the data processing system,
wherein other configuration actions are performed before the metadata component is interpreted.

Appellants argued that the test under § 101 "is not whether the claim could be directed to non-statutory subject matter. Instead, the test asks whether the claim could be directed to one of the four stated categories of statutory subject matter." The Board disagreed, stating that a claim that covered both statutory and non-statutory subject matter is not patent-eligible under § 101.

Ex Parte Christian – August 25, 2010

Panel: J. Thomas, S. Courtenay, J. Hughes

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

1. A method, comprising:
receiving data input through a web page from a client device;
referencing a declarative module to determine a client input security screen to apply to the data input from the client device, wherein the declarative module comprises:
a global section that includes at least one client input security screen that applies to any type of client input value; and
an individual values section that includes at least one client input security screen that applies to a particular type of client input value; and
applying multiple client input security screens to the data input from the client device, including at least one client input security screen from the global section of the declarative module and at least one client input security screen from the individual values section of the declarative module, wherein the client input security screens are distinct from one another, and wherein said act of referencing comprises first using the global section to screen one or more client input values and then using the individual values section to screen at least one of said one or more client input values.

A § 101 rejection was raised sua sponte by the Board. The Board indicated that the claims could read on signals, and so were directed to non-statutory subject matter.

Ex Parte Estrada – August 27, 2010

Panel: H. Lorin, A. Fetting, B. Mohanty

Holding: Non-statutory as directed to an abstract idea and a mental process

Representative claim:

1. A method for managing membership in a collaborative computing environment community, the method comprising:
 - receiving identification of a selected group of end user persons to invite to join the collaborative computing community;
 - evaluating the selected group to identify one or more invitees there from;
 - inviting the one or more identified invitees; and
 - receiving an indication from one or more invitees that the invitee wishes to join the community.

A § 101 rejection was raised sua sponte by the Board. As interpreted by the board, the claimed process provided "nothing more than vague instructions in how to identify persons to invite and who wish to join a community. That is, the claimed process proposes following a simple formula for identifying a person likely to join a community." The Board noted that relevant factors to be considered were "the lack of recitations in the claims to a machine or transformation and that the claims are mere statements of a general concept." The Board further noted that "the process as claimed could be accomplished by human activity alone, including through mental processes." Accordingly, the claims were held to be directed to non-statutory subject matter.

Ex Parte Russo – August 30, 2010

Panel: J. Lucas, R. Nappi, B. Baumeister

Holding: Non-statutory as not satisfying the machine-or-transformation test; non-statutory as being directed to software per se

Representative claim:

1. A hierarchical grouping system comprising:
 - a collaborative context comprising a community of subscribers, a plurality of roles assigned to said subscribers, and a plurality of tools and resources configured for access by said subscribers said access being limited by said roles;
 - a directory comprising entries associated with said subscribers, said directory having a single hierarchical structure; and,
 - a mapping between said directory and said roles in said collaborative context.

The claims were rejected by the Examiner as "not producing 'a useful, concrete, and tangible' result." Since the Supreme Court's decision in *Bilski v. Kappos* issued between the Examiner's rejection and the Board's decision, the Board examined the claims in light of the machine-or-transformation test. Because the claims were not tied to a particular apparatus and did not effect a transformation, the Board found the claims non-statutory. The Board did not provide any analysis regarding whether the claims were abstract outside of the machine-or-transformation test. Additionally, the Board found that the system claims were directed to a set of pure data structures, and thus non-statutory.

Ex Parte Ulf – September 9, 2010

Panel: J. Homere, H. Lorin, B. Mohanty

Holding: Non-statutory as directed to an abstract idea

Representative claim:

1. A method for maximizing opportunity sales by moving a purchaser off an original travel reservation purchase choice and onto a substitute travel reservation purchase, the method comprising the steps of:
 - being notified of a first actor tendering a purchase commitment for a first travel reservation item at a first price with the travel reservation to be fulfilled at a specific future date, the first reservation item being a service selected from the group consisting of a hotel room rental, an automobile rental, an airline flight ticket, and a sea travel, the service to be fulfilled at the specific future date; and
 - tendering a sale commitment to sell to the first actor an equivalent reservation item to the first reservation item at a price at least as favorable as the first price, the equivalent reservation item to be purchased as a substitute for the first reservation item, the sale commitment being presented in a form readable to the first actor.

The Board examined the claims based on the machine-or-transformation test. As the specification indicated that the claimed invention was not limited to use with computers, the Board did not find any requirement for the claimed steps to be implemented on a machine. The Board also did not find any "transformation of an article of manufacture from a different state or thing." The Board went further than the machine-or-transformation test "to determine whether the claimed method is directed to an abstract idea." As a result, the Board found that the claims "in all practical effect would be a patent on 'offering travel promotions' itself." Accordingly, the claims were held to be non-statutory as directed to an abstract idea.

Ex Parte Gelhaus – September 9, 2010

Panel: M. Hoff, T. Hahn, C. Whitehead

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

28. An article of manufacture, comprising:
 - a computer usable medium having a computer readable program code means embodied therein for spreading a non-periodic color signal sent to a spatial light modulator across a frame period, the computer readable program code means in the article of manufacture comprising:
 - computer readable program code for dividing a frame period into a plurality of time slices; computer readable program code for assigning a color to each time slice, wherein one or more colors are assigned to the plurality of time slices in the frame period; and computer readable program code for interleaving the one or more colors assigned to the time slices across the frame period.

The issue before the Board was, "[w]here the Specification is silent to limiting the meaning of 'computer usable medium' to non-transitory tangible media, does the broadest reasonable interpretation of a claim drawn to a 'computer usable medium' cover transitory propagating signals *per se* which are non-statutory subject matter." The Board indicated that "[b]ecause Appellants' Specification does not limit the meaning of the phrase 'computer usable medium' to non-transitory tangible media, the broadest reasonable meaning of the phrase includes both non-transitory tangible media and transitory propagating signals *per se*. It is well settled that a claim directed to computer instructions embodied in a signal is not statutory." Accordingly, the claims were determined to be non-statutory. The conclusion of law provided in the brief is succinct: "[w]here the Specification is silent to limiting the meaning of 'computer usable medium' to non-transitory tangible media, the broadest reasonable interpretation of a claim drawn to a 'computer usable medium' covers transitory propagating signals *per se* which are non-statutory subject matter."

Ex Parte Fatula – September 10, 2010

Panel: J. Thomas, H. Blankenship, D. Stephens

Holding: Non-statutory as directed to software *per se*

Representative claim:

1. An autonomic management apparatus for autonomic management of system resources on a grid computing system, the apparatus comprising:
 - a monitor module configured to monitor the grid computing system for a trigger event;
 - a policy module configured to access one of a plurality of system policies, each of the plurality of system policies corresponding to an operational control parameter of a system resource of the grid computing system, wherein the plurality of system policies comprises a system prediction policy; and
 - a regulation module configured to automatically regulate the system resource in response to a recognized trigger event according to one of the plurality of system policies.

A § 101 rejection was raised *sua sponte* by the Board. The Board interpreted the claims as directed to computer software-based modules, and not "true apparatus in a hardware sense." The claims (including method claims and a corresponding computer readable storage medium claim) were therefore directed to software *per se*.

Ex Parte Bonnell – September 15, 2010

Panel: J. Jeffery, L. Barry, and J. Hughes

Holding: Non-statutory as directed to transitory subject matter

Representative claim:

37. A storage medium which stores program instructions, wherein the program instructions are executable by a programmable control device to implement a method according to any one of claims 1 through 11.

A § 101 rejection for claim 37 was raised sua sponte by the Board. The specification indicated that "[s]uitable carrier mediums include storage mediums such as magnetic or optical media, e.g., disk or CD-ROM, as well as signals or transmission media such as electrical, electromagnetic, or digital signals, conveyed via a communication medium" such as a network or wireless link. Based on this language in the specification, the Board interpreted the storage medium of claim 37 as encompassing a signal, and therefore non-statutory.

Ex Parte Awe – September 21, 2010

Panel: J. Homere, J. Dixon, J. Lucas

Holding: Non-statutory as being directed to transitory subject matter

Representative claim:

14. A computer readable storage medium containing a program which, when executed, performs a panel presentation operation, comprising:
receiving an agent customization panel request issued by a remotely located client; and
in response to the request:
preparing panel information defining a user interface panel capable of being rendered and displayed at a site of the client, and wherein the user interface panel provides a plurality of agent customization elements for customizing one or more intelligent software agents remotely located relative to the client; and
transmitting the panel information to the client.

The specification indicated that "certain embodiments of the invention can be obtained on signal-bearing media." Accordingly, the Board found that the claim could be read "broad enough to encompass a transitory, and propagating signal containing information." As such, the claims were not limited to a tangible medium, and were non-statutory.

Ex Parte Hong – September 22, 2010

Panel: J. Lee, R. Torczon, S. Medley

Holding: Non-statutory as being directed merely to mathematical computations

Representative claim:

27. A method of filtering an image, comprising:
determining a filter strength based on whether a block including a pixel to be filtered is intra-coded; and

filtering the pixel to be filtered using a filtering methodology that adjusts a degree of filtering based on the determined filter strength and a difference value, the difference value being based on the pixel to be filtered and a neighboring pixel.

The Board indicated that each of the recited steps were no more than mathematical computations, and were not tied to a particular machine nor caused transformation of an article from one state to another. Although the Appellant argued that a "pixel" refers to an element on a visual display, the Board noted that the term was "sufficiently broad to also read on a numeric or mathematical representation of an image." As both claims could be "met completely by mere mathematical computation," the claims were held to be non-statutory.

Ex Parte Tobin – September 23, 2010

Panel: J. Lucas, J. Jeffery, J. Hughes

Holding: Non-statutory as directed to software per se

Representative claim:

23. An apparatus for displaying supplemental information particular to a user regarding displayed web pages for the user, the apparatus comprising:
- a link assessment module, for identifying a particular product displayed in a first web page using a device that displays the first web page to the user and determining, with the device, whether an entry corresponding to the particular product displayed on the first web page is contained in a database on the device, wherein the database comprises supplemental information particular to a user and correlates the supplemental information to each of a plurality of products, and wherein the database is separate from the first web page and the first web page is ordinarily devoid of the supplemental information; and
 - a supplemental information display module, in communication with the link assessment module, for displaying supplemental information correlated to the particular product along with and separate from the first web page if it is determined that the database contains an entry for the particular product.

The Examiner asserted that the claimed modules recited software per se. The Appellants asserted that, since the specification stated that each "module" can be implemented in hardware, the claim was statutory. The Board agreed with the Examiner, because the claim could also be interpreted as implemented solely via software. The claims were therefore held to be directed to non-statutory subject matter.

Ex Parte Burkhart – September 24, 2010

Panel: H. Lorin, M. Crawford, A. Fetting

Holding: Non-statutory as directed to an abstract idea

Representative claim:

1. A computer-implemented method for creating rules for the administration of end-user license agreements ('EULAs'), the method comprising:
 - identifying, from historical license data, a license administration pattern, the license administration pattern representing a trend in an organization's administration of the EULAs, terms in the EULAs, or material subject to the EULAs; and
 - creating in dependence upon the license administration pattern, a license administration rule, the license administration rule representing a conditional expression used to establish conditions for accepting or rejecting the EULAs.

A § 101 rejection was raised sua sponte by the Board. The Board indicated that the claims provide "nothing more than vague instructions in how to conduct a business," and that the "claim reasonably broadly covers creating any rule representing any conditional expression for accepting or rejecting EULAs which can be said to be based on a license administration pattern." In determining whether the claims satisfied the machine-or-transformation test, the Board noted that the preamble recited a "computer-implemented method." However, the Board noted that the preamble at best "implies the use of a general purpose computer. Given that the body of the claim provides no further insight into the workings of the computer, the phrase "computer-implemented" suggests at best a nominal use of a general purpose computer...A nominal recitation of a general purpose computer is not an express recitation to a *particular* machine." The Board further indicated that the phrase "computer-implemented" amounted to no more than a field-of-use limitation. Accordingly, the claims were held to be directed to an abstract idea.

Ex Parte Kelkar – September 24, 2010

Panel: D. Adams, A. MacDonald (Vice Chief APJ), E. Grimes

Holding: Non-statutory as directed to an abstract idea; non-statutory as directed to transitory subject matter

Representative claim:

1. A method for determining similarity between portions of gene expression profiles in a computer comprising the steps of:
 - processing a number of gene expression profiles with a similar sequences algorithm that is a time and intensity invariant correlation function to obtain a data set of gene expression profile pairs and a match fraction for each gene expression profile pair;
 - listing gene expression profile pairs in clusters by their match fractions;
 - removing a first gene expression profile from a cluster when another cluster has another gene expression profile with a higher match fraction with the first gene expression profile, unless the another gene expression profile requires a larger number of subsequences to achieve similarity with the first gene expression profile;
 - repeating the removing step until all gene expression profiles are listed in only one cluster;
 - providing output of the listing of clusters of gene expression profiles to a user.

The Board found that the claims were not limited to a particular machine, and therefore did not satisfy the machine-or-transformation test. The phrase "in a computer" in the preamble

was determined to merely identify "the environment in which the method is performed," and was treated as a field-of-use limitation. The Board further analyzed the claims to determine whether they claimed an abstract idea, and determined that the claims were only directed to a mathematical algorithm, and as such were abstract. The Board also noted that the claims could read on a carrier wave, and were thus directed to non-statutory subject matter.

Ex Parte Dettinger – September 27, 2010

Panel: J. Thomas, H. Blankenship, S. Courtenay

Holding: Non-statutory as directed to software per se

Representative claim:

1. A data processing system for retrieving data comprising:
 - an abstract model comprising a plurality of definitions of logical fields, each definition comprising a logical field name and a mapping referencing physical data, wherein at least one logical field comprises:
 - at least a first mapping referencing data in a first physical data structure;
 - a second mapping referencing data in a second physical data structure; and
 - a first conditional modifier allowing the logical field to be selectably mapped to the first physical data structure using the first mapping or the second physical data structure using the second mapping, depending on the presence of the first conditional modifier in an abstract query containing the at least one logical field; and
 - a query processor configured to convert one or more abstract queries containing logical fields configured with conditional modifiers into one or more executable queries of a given query language by referencing the abstract model.

A § 101 rejection was raised sua sponte by the Board. The Board noted that there was "no recited hardware or structural element performing any functionality in the body of these system claims." Although the preamble recited a "data processing system," the Board found that the figures and supporting specification showed that "this feature is directed to a software-based data processing system per se." The claims were therefore found non-statutory.

Ex Parte Cumpson – September 27, 2010

Panel: J. Dixon, J. Lucas, S. Courtenay

Holding: Non-statutory as directed to software per se

Representative claim:

19. Computer program product storable on a medium readable out by a computer system, comprising a software code section which induces the computer system to execute the method as claimed in claim 1, when the product is executed on the computer system.

Claim 19 recited that the computer program product was "storable" on a medium that was "readable" by a computer system. The Board found that this could be read on a disembodied computer program per se, and "does not limit the recited 'computer program product' to actually being stored on a computer readable medium." The claim was thus held to be non-statutory as directed to software per se.

Ex Parte Arning – September 29, 2010

Panel: M. Crawford, A. Fetting, B. Mohanty

Holding: Non-statutory as directed to software per se

Representative claim:

10. A computer system for ranking service offerings in a service-oriented architecture, in which said service offerings are offered by a Service Broker to a Service Requestor comprising:
means for querying, by the Service Requestor, the Service Broker for a list of qualifying services;
means for generating, by the Service Broker, a result list of qualifying services;
means for submitting the result list to a trained data-mining model; and
means for generating a newly ranked, improved result list, in response to said means for submitting.

Although the claims recite a "computer system" in the preamble, the Board found that the body of the claims merely recite "functions that can be implemented by software alone." Further, the specification indicated that "the invention can be realized with just software." Accordingly, the claim was held to be non-statutory as directed to software per se.

DISTRICT COURTS²

Ultramercial, LLC v. Hulu, LLC – 2010 WL 3360098 (C.D. Cal. August 13, 2010)

Judge: R. G. Klausner

Holding: Non-statutory as directed to an abstract idea

Representative claim:

A method for distribution of products over the Internet via a facilitator, said method comprising the steps of:

² See the following presentation for a summary and further details on the cited District Court case: "In the Aftermath of Bilski", presented by Stephen C. Durant of Schwegman Lundberg Woessner, PA, on Sept. 20, 2010, at the PLI Patent Litigation 2010 conference in San Francisco, CA (http://www.pli.edu/product/seminar_detail.asp?id=63434)

- (1) receiving, from a content provider, media products that are covered by intellectual-property rights protection ...
- (2) selecting a sponsor message to be associated with the media product...
- (3) providing the media product for sale at an Internet website...
- (4) restricting general public access to said media product;
- (5) offering to a consumer access to the media product without charge to the consumer on the precondition that the consumer views the sponsor message;
- (6) receiving from the consumer a request to view the sponsor message,...
- (7) in response to receiving the request from the consumer, facilitating the display of a sponsor message to the consumer;
- (8) if the sponsor message is not an interactive message, allowing said consumer access to said media product after said step of facilitating the display of said sponsor message;
- (9) if the sponsor message is an interactive message, presenting at least one query to the consumer and allowing said consumer access to said media product after receiving a response to said at least one query;
- (10) recording the transaction event to the activity log...
- (11) receiving payment from the sponsor of the sponsor message displayed.

The claims were held to be non-statutory as not being tied to a particular machine. Although the court acknowledged that the machine-or-transformation test was not the only test for subject matter eligibility, the district court noted that the test still had "a major screening function." Slip Op., p. 3. Although the claims recited a "faciliator" and "the Internet," those elements do not necessarily require a machine. *Id.*, p. 4. The court further noted that "the Internet is not a machine." *Id.* Additionally, the court stated that even if the only useful application of the invention is as a programmed computer on the Internet, that does not mean "that the patent claims are limited to use on a computer, or, more importantly, that they are *tied* to one...the machine must limit the invention in a meaningful way." *Id.* Accordingly, the claim was held to be directed to abstract subject matter. *Id.*, pp. 6-7.

COURT OF APPEALS FOR THE FEDERAL CIRCUIT

King Pharmaceuticals v. Eon Labs, 2009-1437 (August 2, 2010)

Panel: Gajarsa, Bryson, Prost

Representative claims:

1. A method of increasing the oral bioavailability of metaxalone to a patient receiving metaxalone therapy comprising administering to the patient a therapeutically effective amount of metaxalone in a pharmaceutical composition with food.
21. The method of claim 1, further comprising informing the patient that the administration of a therapeutically effective amount of metaxalone in a pharmaceutical composition with food results in an increase in the maximal plasma concentration (C_{max}) and extent of absorption (AUC_(last)) of metaxalone compared to administration without food.

The District Court had found several claims, such as claim 21 above, invalid, because "the act of informing another person of the food effect of metaxalone does not transform metaxalone into a different state or thing." *See*, Slip Op., p. 17 (citing *King Pharms, Inc. v. Eon Labs, Inc.*, 593 F. Supp. 2d 501, 513.) In indicating that the District Court's erred in its holding of invalidity based on § 101, the Federal Circuit referenced its prior decision in *Prometheus Labs., Inc. v. Mayo Collaborative Serv.*, stating "we held that methods of treatment 'are always transformative when a defined group of drugs is administered to the body to ameliorate the effects of an undesired condition,' because such methods transform the human body." *See*, Slip Op., p. 18 (citing *Prometheus*, 581 F.3d 1336, 1346 (Fed. Cir. 2009), *cert. granted and vacated*, No. 09-490, 78 U.S.L.W. 3254 (U.S. June 29, 2010)). The Federal Circuit noted, however, that this case "does not present the proper vehicle for determining whether claims covering medical treatment methods are eligible for patenting under § 101" because the subject matter was also anticipated. *Id.*, p. 19. Accordingly, although the Federal Circuit held that the decision of invalidity under § 101 was in error, the court did not analyze the issue further as it directed the remainder of its analysis to anticipation.

Intervet v. Merial Limited, 2009-1568 (August 4, 2010)

Panel: Prost, Bryson, Dyk

Representative claim:

32. An isolated DNA molecule comprising a nucleotide sequence encoding an epitope which is specific to PCV-2 and not specific to PCV-1.

Although it was not discussed or decided in the primary opinion, Judge Dyk raises the issue of "whether the isolated DNA molecule, separate from any applications associated with the isolated nucleotide sequence (for example, the production of a vaccine) is patentable subject matter. *See*, Slip Op., Dissent, p. 3. Judge Dyk expresses his concern of such claims in the context of patentable subject matter. *Id.*, p. 4. Specifically, Judge Dyk indicated that "allowing the patenting of naturally occurring substances [would] preempt the use by others of substances that should be freely available to the public." *Id.* After reviewing the relevant case law, Dyk indicates that "it appears that in order for a product of nature to satisfy section 101, it must be qualitatively different from the product occurring in nature, with 'markedly different characteristics from any found in nature.' It is far from clear that an 'isolated' DNA sequence is qualitatively different from the product occurring in nature." *Id.*, p. 6. Judge Dyk did, however, include a footnote noting the PTO's reasoning for issuing gene patents, namely that a "DNA molecule does not occur in that isolated form in nature" and "their purified state is different from the naturally occurring compound." *Id.*, p. 4, fn. 2.

WAITING IN THE WINGS (on appeal to the Federal Circuit)³

Classen Immunotherapies, Inc. v. Biogen IDEC – 304 Fed. Appx. 866 (Fed. Cir. 2008) (cert. granted, vacated, and remanded on June 28, 2010)

Representative claim:

A method of determining whether an immunization schedule affects the incidence or severity of a chronic immune-mediated disorder in a treatment group of mammals, relative to a control group of mammals, which comprises:

immunizing mammals in the treatment group of mammals with one or more doses of one or more immunogens, according to said immunization schedule, and

comparing the incidence, prevalence, frequency or severity of said chronic immune-mediated disorder or the level of a marker of such a disorder, in the treatment group, with that in the control group.

In a very brief, non-precedential opinion, the Federal Circuit found that this claim did not meet the qualifications set forth by its then-exclusive machine-or-transformation test, and was therefore not patent-eligible. The Classen opinion did not provide the specific reasoning for why this test was not met. The Supreme Court remanded the case to the Federal Circuit for reconsideration in light of its holding in *Bilski v. Kappos*.

Prometheus Labs., Inc. v. Mayo Collaborative Svcs. – 581 F.3d 1336 (Fed. Cir. 2009) (cert. granted, vacated, and remanded on June 28, 2010)

Representative claim:

A method of optimizing therapeutic efficacy for treatment of an immune-mediated gastrointestinal disorder, comprising:

(a) administering a drug providing 6-thioguanine to a subject having said immune-mediated gastrointestinal disorder; and

(b) determining the level of 6-thioguanine in said subject having said immune-mediated gastrointestinal disorder,

wherein the level of 6-thioguanine less than about 230 pmol per 8×10^8 red blood cells indicates a need to increase the amount of said drug subsequently administered to said subject

³ See the following presentations for a summary and further details on the cited District Court cases: "Patentable Subject Matter After *Bilski v. Kappos*," presented by Erika H. Arner of Finnegan, Henderson, Farabow, Garrett & Dunner, LLP, on Sept. 23, 2010, at the USPTO Business Methods Partnership Meeting in Alexandria, VA (http://www.finnegan.com/files/upload/PatentableSubjectMatterAfteBilski_USPTOBusinessMethodsPartnership9.23.2010.pptx); "In the Aftermath of *Bilski*," presented by Stephen C. Durant of Schwegman Lundberg Woessner, PA, on Sept. 20, 2010, at the PLI Patent Litigation 2010 conference in San Francisco, CA (http://www.pli.edu/product/seminar_detail.asp?id=63434)

and wherein the level of 6-thioguanine greater than about 400 pmol per 8×10^8 red blood cells indicates a need to decrease the amount of said drug subsequently administered to said subject.

The Federal Circuit found that this claim satisfied its then-exclusive machine-or-transformation (M-or-T) test, and was patent-eligible. The Federal Circuit approved of the Prometheus claims by stating, "[t]he asserted claims are in effect claims to methods of treatment, which are always transformative when a defined group of drugs is administered to the body to ameliorate the effects of an undesired condition." *Prometheus*, 581 F.3d at 1346. Further, the Federal Circuit decided that the determining step in the Prometheus claims was the central feature of the invention, and required a transformation of the body and/or of collected blood in order to be completed. As such, the determining step was not ancillary to the invention, and contributed to satisfying the machine-or-transformation test. The Supreme Court remanded the case to the Federal Circuit for reconsideration in light of its holding in *Bilski v. Kappos*.

Fort Properties, Inc. v. American Master Lease, LLC – 609 F.Supp. 2d 1052 (C.D. Cal. Jan. 22, 2009)

Representative claim:

1. A method of creating a real estate investment instrument adapted for performing tax-deferred exchanges comprising:
 - aggregating real property to form a real estate portfolio;
 - encumbering the property in the real estate portfolio with a master agreement; and
 - creating a plurality of deedshares by dividing title in the real estate portfolio into a plurality of tenant-in-common deeds of at least one predetermined denomination, each of the plurality of deedshares subject to a provision in the master agreement for reaggregating the plurality of tenant-in-common deeds after a specified interval.

The patentees explicitly acknowledged that "the recited methods 'need not be performed by a computer.'" 609 F.Supp.2d at 1055-56. The court found that the only transformations present in the claims were of "legal ownership interests in real estate," which did not constitute transformation of an article or thing *Id.* at 1056. Accordingly, the district court found that the claims did not satisfy the machine-or-transformation test. The case was appealed to the Federal Circuit, but stayed pending the Supreme Court's decision in *Bilski v. Kappos*.

CyberSource Corp. v. Retail Decisions, Inc. – 620 F.Supp.2d 1068 (N.D. Cal. Mar. 27, 2009)

Representative claim:

2. A computer readable medium containing program instructions for detecting fraud in a credit card transaction between a consumer and a merchant over the Internet, wherein execution of the program instructions by one or more processors of a computer system causes the one or more processors to carry out the steps of:
 - a) obtaining credit card information relating to transactions from the consumer; and
 - b) verifying the credit card information based upon values of plurality of parameters, in combination with information that identifies the consumer, and that may provide an indication whether the credit card transaction is fraudulent,

wherein each value among the plurality of parameters is weighted in the verifying step according to an importance, as determined by the merchant, of that value to the credit card transaction, so as to provide the merchant with a quantifiable indication of whether the credit card transaction is fraudulent,

wherein execution of the program instructions by one or more processors of a computer system causes the one or more processors to carry out the further steps of;

obtaining information about other transactions that have utilized an Internet address that is identified with the credit card transaction; constructing a map of credit card numbers based upon the other transactions; and utilizing the map of credit card numbers to determine if the credit card transaction is valid.

The district court determined that the claims did not satisfy the machine-or-transformation test. Regarding the transformation prong, the district court indicated that the claims merely information, which did not rise to the level of "transformation." 620 F.Supp.2d at 1073-74. Further, the information manipulated did not constitute a physical object. *Id.* Regarding the machine prong, the court recognized that the claim was to be implemented on the Internet. *Id.* at 1076-77. However, the court did not agree that the Internet was a particular machine, noting that "the internet is an abstraction. . . One can touch a computer or network cable, but one cannot touch 'the internet.'" *Id.* The court further stated that even if the Internet were a machine, implementation on the Internet would merely constitute insignificant extra-solution activity. *Id.* In response to the patentee's arguments that the claim followed the format commonly known as "a *Beauregard* claim," the district court stated that there was "no legal doctrine creating a special 'Beauregard claim' that would exempt" the claim from § 101 analysis, and calls into question the breadth of the *In re Beauregard* holding. *Id.* at 1078-79. The case was appealed to the Federal Circuit, but stayed pending the Supreme Court's decision in *Bilski v. Kappos*.

Every Penny Counts, Inc. v. Bank of America Corp. – 2009 WL 6853402 (M.D. Fla. May 27, 2009)

Representative claim:

A system, comprising:
a network;
entry means coupled to said network for entering into the network an amount being paid in a transaction by a payor;
identification entering means in said entry means and coupled to said network for entering an identification of the payor;
said network including computing means having data concerning the payor including an excess determinant established by the payor for the accounts;
said computing means in said network being responsive to said data and said identification entering means for determining an excess payment on the basis of the determinant established by the payor, and
said computing means in said network being responsive to the excess payment for apportioning, at least a part of the excess payment amount said accounts on the basis of the excess determined and established by the payor and on the basis of commands established by the payor and controlled by other than the payee.

Over the patentee's assertions that the claims were directed to a system, the court determined that "the 'system'...has no practical application except in connection with' computers, cash registers, and networks, but it is not comprised of those devices." Slip Op., p. 2. Accordingly, the court found that the claims were directed to a process, rather than a machine, and applied the machine-or-transformation test to the claims. The court found that the patented claims were directed to a mathematical algorithm, and any involvement of a machine was insignificant extra-solution activity. *Id.* at 3. Accordingly, the court held that the claims were unpatentable as failing the machine or transformation test. The case was appealed to the Federal Circuit, but stayed pending the Supreme Court's decision in *Bilski v. Kappos*.

DealerTrack v. Huber – 657 F.Supp.2d 1152 (C.D. Cal. July 7, 2009)

Representative claim:

1. A computer aided method of managing a credit application, the method comprising the steps of:
 - receiving credit application data from a remote application entry and display device;
 - selectively forwarding the credit application data to remote funding source terminal devices;
 - forwarding funding decision data from at least one of the remote funding source terminal devices to the remote application entry and display device;
 - wherein the selectively forwarding the credit application data step further comprises:
 - sending at least a portion of a credit application to more than one of said remote funding sources substantially at the same time;
 - sending at least a portion of a credit application to more than one of said remote funding sources sequentially until a finding source returns a positive funding decision;
 - sending at least a portion of a credit application to a first one of said remote funding sources, and then, after a predetermined time, sending to at least one other remote funding source, until one of the finding sources returns a positive funding decision or until all funding sources have been exhausted; or;
 - sending the credit application from a first remote funding source to a second remote funding source if the first funding source declines to approve the credit application.

The patentee conceded that the claims did not meet the transformation prong of the machine-or-transformation test. 657 F.Supp.2d at 1154. Because the specification "does not specify how the computer hardware and database are 'specially programmed' to perform the steps claimed in the patent," the court found that none of the devices constituted a "particular machine" for the machine prong of the machine-or-transformation test. *Id.* at 1155-56. The case was appealed to the Federal Circuit, but stayed pending the Supreme Court's decision in *Bilski v. Kappos*.

Research Corp. Technologies v. Microsoft Corp. – 2009 WL 2413623 (D. Ariz. July 28, 2009)

Representative claims:

1. A method for the halftoning of gray scale images by utilizing a pixel-by-pixel comparison of the image against a blue noise mask in which the blue noise mask is comprised of a random non-deterministic, non-white noise single valued function which is designed to produce visually pleasing dot profiles when thresholded at any level of said gray scale images.

29. Apparatus for the halftoning of color images comprising a comparator for comparing, on a pixel-by-pixel basis, a plurality of color planes of said color image against a blue noise mask in which the blue noise mask is comprised of a random non-deterministic, non-white noise single valued function which is designed to provide visually pleasing dot profiles when thresholded at any level of said color images, wherein an output of said comparator is used to produce a halftoned image.

Regarding claim 1 (above) and those similar, the court applied the machine-or-transformation test to the claims, and found that the recited claim "does not require a machine; instead it could be done on a sheet of paper using a pen." Slip Op., p. 12. Further, the claims did not require a transformation, as the claim "does not require any visual depiction or subsequent display." *Id.* at 13. As such, the claims were held to be non-statutory. However, regarding claim (29) and those similar, the court found that the comparator outputs an image. Because "its use in producing a final display meets the transformation prong" of the machine-or-transformation test, the court held these claims to be statutory under § 101. The case was appealed to the Federal Circuit, and is awaiting a decision.

Association for Molecular Pathology v. United States Patent and Trademark Office – 702 F.Supp.2d 181 (S.D.N.Y. March 29, 2010, amended April 5, 2010)

Representative claims:

1. An isolated DNA coding for a BRCA1 polypeptide, said polypeptide having the amino acid sequence set forth in SEQ ID NO:2.

20. A method for screening potential cancer therapeutics which comprises: growing a transformed eukaryotic host cell containing an altered BRCA1 gene causing cancer in the presence of a compound suspected of being a cancer therapeutic, growing said transformed eukaryotic host cell in the absence of said compound, determining the rate of growth of said host cell in the presence of said compound and the rate of growth of said host cell in the absence of said compound and comparing the growth rate of said host cells, wherein a slower rate of growth of said host cell in the presence of said compound is indicative of a cancer therapeutic.

The issue decided at the district court was whether "isolated human genes and the comparison of their sequences" are patentable. The court noted that the typical practice in the USPTO is to grant patents on DNA sequences "so long as those sequences are claimed in the form of 'isolated DNA.' This practice is premised on the view that DNA should be treated no differently from any other chemical compound, and that its purification from the body, using well-known techniques, renders it patentable by transforming it into something distinctly different in character." 702 F.Supp.2d at 185. Contrary to the USPTO's practice, however, the district court found that "DNA's existence in an 'isolated' form alters neither this fundamental quality of DNA as it exists in the body nor the information it encodes. Therefore, the patents at

issue directed to 'isolated DNA' containing sequences found in nature are unsustainable as a matter of law and are deemed unpatentable subject matter under 35 U.S.C. § 101." *Id.* In response to arguments that the method claims effected a transformation, the court determined that "analyzing" or "comparing" terms in the claims were "directed only to the abstract mental processes of 'comparing' or 'analyzing' gene sequences." *Id.* at 235-36. Accordingly, the claims were held to be non-statutory. The court dismissed the plaintiff's assertion that a grant of the patents would violate the Constitution and its First Amendment. *Id.* at 238. The case was appealed to the Federal Circuit.

UNITED STATES SUPREME COURT

In re Ferguson – 558 F.3d 1359 (Fed. Cir. 2009) (*cert. denied* (U.S. June 29, 2010))

Representative claim:

1. A method of marketing a product, comprising:
 - developing a shared marketing force, said shared marketing force including at least marketing channels, which enable marketing of a number of related products;
 - using said shared marketing force to market a plurality of different products that are made by a plurality of different autonomous producing company, so that different autonomous companies, having different ownerships, respectively produce said related products;
 - obtaining a share of total profits from each of said plurality of different autonomous producing companies in return for said using; and
 - obtaining an exclusive right to market each of said plurality of products in return for said using.

The Federal Circuit had held that the claims did not satisfy the machine-or-transformation test, and were directed to abstract ideas. The case had been appealed to the Supreme Court. However, the Supreme Court denied the writ for certiorari on the day after its decision in *Bilski v. Kappos*.