Status of the BPAI Decisions Relying Upon the Bilski Machine or Transformation Test, as of 1/29/2009

By Rick Neifeld, Neifeld IP Law, PC[1]

As of 1/29/2009, there are five published decisions of the BPAI, all non precedential, citing the decision in Bilski and applying its machine or transformation test. The following excepts from those decisions provide the relevant claims and relevant portions of the analysis viz the 101/Bilski issue. From the following, the only one that causes me substantial concern in the sense that it appears to broadened the holding in Bilski is the dicta in Ex parte SCOTT C. HARRIS that:

> Even if the network and server in those claims were construed as electronic, the claims would still fail the first prong. Were the recitation of a network and server in combination with purely functional recitations of method steps, where the functions are implemented using an unspecified algorithm, sufficient to transform otherwise unpatentable method steps into a patent eligible process, this would exalt from [sic; form] over substance and would allow pre-emption of the fundamental principle present in the non-machine implemented method by the mere recitation of a network and server. Such a field-of-use limitation of communication channels is insufficient to render an otherwise ineligible process claim patent eligible.

Ex parte NORBERT BECKER, et al, Appeal 2008-2064, Application 09/948,563, Tech Center 2100 (BPAI 1/26/2009)(APJs Thomas, Courtney III, and Siu)

Claim 7 rejected under 101, from the appeal brief, reads as follows:

> 7. A method for creating a hierarchically structured automation object and embedding said automation object into an engineering system, said method comprising: creating a first component operable to generate system functionality of said automation object, wherein the general system functionality relates to an overall functionality of the engineering system; creating a second component operable to generate generic base functionality of said automation object, wherein the generic base functionality is common to all other automation objects; creating a third component with functionality that is operable to manage at least one module corresponding to said automation object; creating a first module component corresponding to the at least one module, said first module component being operable to generate the system functionality; creating a second module component corresponding to the one module, said second module component being operable to generate the base functionality; creating a third module

component corresponding to the at least one module, said third module component being operable to generate the technical functionality, and inter-networking said first, second and third components and said first, second and third module components, wherein the first, second, and third components form a hierarchical structure.

Claim 1 not rejected under 101 follows:

1. An automation system comprising: at least one automation object, each automation object having a hierarchy of components, said hierarchy comprising a first component generating system functionality related to internal services of the system, a second component generating base functionality related to generic services that facilitate manipulation of the at least one automation object, and a third component operable to manage at least one module, wherein each module comprises at least a module component operable to generate a technological functionality.

The decision states in pertinent part that:

This is a decision on appeal under 35 U.S.C. 134(a) from the Examiner's rejection of claims 1-16. We have jurisdiction under 35 U.S.C. º 6(b). We affirm-in-part and enter a new ground of rejection against claims 7-11 and 13. *** Using our authority under 37 C.F.R. º 41.50(b), we reject claims 7-11 and 13 under 35 U.S.C. 101 as being directed to non-statutory subject matter.

We conclude that Appellants' claimed method for creating a hierarchically structured automation object and embedding said automation object into an engineering system (see preamble, claim 7) does not require a particular machine or apparatus, nor do these claims transform any article into a different state or thing. According, we conclude that independent claim 7, and associated dependent claims 8-11 and 13 are not directed to statutory subject matter under 35 U.S.C. º 101.***

Ex parte ARTHUR E. BARNES, Appeal 2007-4114, Application 11/017,450, Tech Center 3600, (BPAI 1/22/2009)(APJs Pate, Bahr, and Silverberg)

Claims 1 and 30 as presented in the Decision on appeal read as follows:

1. A fault identification method that comprises:

obtaining seismic data; and

for each of multiple positions of an analysis window in the seismic data, determining a planarity value for discontinuities in the analysis window.

30. A fault identification method that comprises:

determining discontinuity values from seismic data; and applying principal component analysis to the discontinuity values to identify faults.

The decision states in pertinent part, with the original line numbering preserved, that:

SUMMARY OF DECISION
2 We REVERSE and ENTER A NEW GROUND OF REJECTION
3 PURSUANT TO OUR AUTHORITY UNDER 37 C.F.R. º 41.50(b).
4 THE INVENTION
5 The Appellant's claimed invention is directed to a method for
6 identifying faults in a seismic data volume (Spec.5;para. [0009]). Claims 1
7 and 30, reproduced below, are representative of the subject matter on appeal.
8 1. A fault identification method that comprises: obtaining
9 seismic data; and for each of multiple positions of an analysis
10 window in the seismic data, determining a planarity value for
11 discontinuities in the analysis window.
12
13 30. A fault identification method that comprises:
14 determining discontinuity values from seismic data; and
15 applying principal component analysis to the discontinuity
16 values to identify faults.***

Claims 1-18 and 30-34 are rejected under 35 U.S.C. 101 because the
2 claimed invention is directed to non-statutory subject matter, because it is
3 not tied to a particular machine, or does not transform an article. *** A
11 review of the claims reveals that they call for the gathering, analyzing and
12 displaying of data without any details as to how the data is gathered,
13 analyzed or displayed. In particular, claim 1 calls for the gathering and
14 analyzing of data.*** Claim 30 calls for the analyzing of data.
*** As such, the claims neither specifically call for a
18 machine nor reference a machine. The adding of a data-gathering step to a
19 process claim (claims 1-18) is insufficient to convert a process into a patent20
eligible process. See id. at 1397. A claim that is drawn only to the
21 analyzing of data (dependent claims 2-18 and independent claim 30) is a
22 claim that seeks to pre-empt the use of a fundamental principle. See id. at
23 1390. The displaying of the data (claims 31-34) without more (e.g., a
24 reference as to how and why it is displayed) is determined to be
25 insignificant postsolution activity and as such will not transform the
26 claimed method into a patentable method.

Ex parte MARIUS A. CORNEA-HASEGAN, Appeal 2008-4742, Application 10/328,572, Technology Center 2100, (BPAI 1/13/2009)(APJs MacDonald, Homere, Hughes)

Independent claims 1 and 18 as recited in the decision read as follows:

1. A method, comprising:
normalizing by a processor operands a, b, and c for a floating point operation;
predicting by the processor whether result d of said floating point operation on said a, b, c might be tiny;
if so, then scaling by the processor said a, b, c to form a', b', c';
calculating by the processor result d' of said floating-point operation on said a', b', c';
determining by the processor whether said d is tiny based upon said result d';
if so, then calculating by the processor said d using software; and
if not, then calculating by the processor said d using floating point hardware.

18. A computer readable media including program instructions which when executed by a processor cause the processor to perform the following:
normalizing operands a, b, and c for a floating-point operation;
utilizing the results of a hardware prediction unit predicting whether result d of said floating-point operation on said a, b, c might be tiny;
if so, then scaling said a, b, c to form a', b', c';
calculating result d' of said floating-point operation on said a',b', c';
determining whether said d is tiny based upon said result d';
if so, then calculating said d using software; and
if not, then calculating said d using floating-point hardware.

The decision states in pertinent part that:
Appellant's claim 1 recites a series of process steps performed by a processor. The recitation of a processor in itself, however, does not tie the process steps to a particular machine. In other words, the recitation of a processor does not limit the process steps to any specific machine or apparatus. Appellant does not dispute this point. Thus, claim 1 fails the first prong of the machine-or-transformation test because it is not tied to a particular machine or apparatus. Appellant's claim 1also fails the second prong of the machine-or-transformation test because the data acted on by the method does not represent physical and tangible objects. Rather, the data represents information about an abstract floating-point number, which is intangible. Thus, claim 1 fails the machine-or-transformation test and is not patent-eligible under 35 U.S.C. 101.
In contrast to independent claim 1 above, claim 18 recites computer readable media. When broadly construed in a manner consistent with Appellant's Specification, the claimed computer readable media limits the scope of the claimed media to tangible media embodiments such as the disclosed fixed magnetic disk, [ ] floppy disk drive, [ ] optical disk drive, [ ] magneto-optical disk drive, [ ] magnetic tape, or non-volatile memory including flash memory. (Spec. ¶ [0058].) Even so, analysis of a manufacture claim and a process claim is the same under 101. See AT&T Corp. v. Excel Communications, Inc., 172 F.3d 1352, 1357 (Fed. Cir. 1999) (abrogated by Bilski, 545 F.3d 943) (Whether stated implicitly or explicitly, we consider the scope of 101 to be the same regardless of the form--machine or process--in which a particular

claim is drafted.); State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998) (abrogated by Bilski). Appellant acknowledges this, stating that the reasoning applied as to why the process claim 1 is directed to statutory subject matter may also be applied to this claim. (App. Br. 7.) As with claim 1, Appellant's claim 18 also does not transform physical subject matter and is not tied to a particular machine. Here, Appellant's claim recites computer readable media, but Appellant's claim is still directed to determining a result d from a mathematical algorithm.

Additional recitations of computer readable media, a hardware prediction unit, steps manipulating other data (floating-point operands) and determining whether to calculate d using floating point hardware are still insignificant extra-solution activities that fail to transform an unpatentable principle into a patentable process. Bilski, at 957. Limiting the claim to computer readable media does not add any practical limitation to the scope of the claim. Such a field-of-use limitation is insufficient to render an otherwise ineligible claim patent eligible. See id. (citing Diehr, 450 U.S. at 191-92 (noting that eligibility under 101 cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.)). To permit such a practice would exalt form over substance and permit Appellant to circumvent the limitations contemplated by 101.

Ex parte SRINIVAS GUTTA, Appeal 2008-3000, Application 10/014,202, Technology Center 3600 (BPAI 1/15/2009)(APJs Pate, Horner, and McCarthy)

Claim 1 as recited in the decision reads as follows:

> 1. A computerized method performed by a data processor for recommending one or more available items to a target user, comprising the steps of:
>
> obtaining a history of selecting one or more available items by at least one third party; partitioning a third party selection history into a plurality of clusters, wherein each cluster contains items that are closer to the mean of the cluster than any other cluster from among the plurality of clusters,
>
> modifying a target user's history of selecting said one or more available items with one or more third party clusters to produce a modified target user's history;
>
> processing the modified target user's history to generate a target user profile, wherein the modified target user's history characterizes preferences of the target user as modified to reflect preferences of the third party;
>
> generating a recommendation score for at least one of said available items based on said target user's profile; and
>
> displaying the recommendation score to the target user.

The decision reads in pertinent part that:

Process claims 1 and 7 recite [a] computerized method performed by a data processor Claim 1 additionally requires, displaying the [calculated result] to [a] target user. These are the only limitations which could arguably be construed to tie the claimed process to a particular machine under the first prong of the machine-or-transformation test. This is the exact issue that the court in Bilski declined to decide. Bilski at 961-62. The court did, however, provide some guidance when it explained that the use of a specific machine must impose meaningful limits on the claim's scope to impart patent-eligibility. Id.

The recitation in the preamble of [a] computerized method performed by a data processor adds nothing more than a general purpose computer that is associated with the steps of the process in an unspecified manner. Such a field-of-use limitation is insufficient to render an otherwise ineligible process claim patent eligible. Bilski, 545 F.3d at 957, citing Diehr, 450 U.S. at 191-92 (noting that eligibility under 101 cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.). This recitation, therefore, fails to impose any meaningful limits on the claim's scope.

Regarding claim 1, the step of displacing need not be performed by any particular structure. It may be accomplished simply by writing the resulting score on a piece of paper. A conclusion that such post-solution activity is sufficient to impart patentability to a claim involving the solving of a mathematical algorithm would exalt form over substance. This step is, therefore, insufficient to impart patentability to a claim involving the solving of a mathematical algorithm.

The steps of process claims 1 and 7 also fail the second prong of the machine-or-transformation test because the data does not represent physical and tangible objects. Rather, the data represents information about user selection histories, an intangible.

Ex parte SCOTT C. HARRIS, Appeal 2007-0325, Application 09/780,248, Technology Center 3600, (BPAI 1/13/2009)(APJs Nappi, Horner, and Fetting)(On rehearing)

Claims 5, 28, and 32 as recited in the decision read as follows:

> 5. A method, comprising:
>
> allowing each of accepting bids from a plurality of users to submit bids for a specified item being auctioned, said bids being submitted from any of a number of clients over a network to a server which collects said bids; and
>
> defining rules for actions in said auction, said rules including at least a time when the action will take place, and an actual action that will take place at the defined time; and
>
> keeping the rules secret until the defined time.
>
> 28. A method comprising:
>
> conducting an auction over a network by accepting bids for items, and establishing a highest bid for an item as being a winning bid; and
>
> treating a bid received within a predetermined period of time before an end time of an auction less favorably than bids received prior to said predetermined

period.

32. A method comprising:

conducting an auction over a network by accepting bids for items, and establishing a highest bid for an item as being a winning bid;

determining identities of bidders bidding during said conducting; and

treating a bid from bidders whose identities have not been determined by said determining, and which bids are received within a predetermined period of time before an end time of an auction, less favorably than bids received prior to said predetermined period.

The decision states in pertinent part that:

We acknowledged the limitations to a network in claims 5-7 and 28-32, but found they do no more than create the illusion of physicality in some embodiments, which merely attempts to exalt form over substance. We found that even to convey a representation of an abstraction over an electronic network is still no more than manipulating an abstraction. We further found that the limitation of a network was not further narrowed to electronic networks, and that societal networks of auction houses (e.g. Christies, from 1766), that convey bids are too notoriously old well known to so narrowly construe this term. ***

Even if the network and server in those claims were construed as electronic, the claims would still fail the first prong. Were the recitation of a network and server in combination with purely functional recitations of method steps, where the functions are implemented using an unspecified algorithm, sufficient to transform otherwise unpatentable method steps into a patent eligible process, this would exalt from [sic; form] over substance and would allow pre-emption of the fundamental principle present in the non-machine implemented method by the mere recitation of a network and server. Such a field-of-use limitation of communication channels is insufficient to render an otherwise ineligible process claim patent eligible. Id. at 957, citing Diehr, 450 U.S. at 191-92 ***

Even if the network and server in those claims were construed as electronic, the claims would still fail the first prong. Were the recitation of a network and server in combination with purely functional recitations of method steps, where the functions are implemented using an unspecified algorithm, sufficient to transform otherwise unpatentable method steps into a patent eligible process, this would exalt from over substance and would allow pre-emption of the fundamental principle present in the non-machine implemented method by the mere recitation of a network and server. Such a field-of-use limitation of communication channels is insufficient to render an otherwise ineligible process claim patent eligible. Id. at 957, citing Diehr, 450 U.S. at 191-92 (noting that eligibility under 101 cannot be circumvented by attempting to limit the use of the formula to a particular technological environment.). Again, the claims fail the first prong of the machine-or-transformation test because they are not tied to a particular machine or apparatus.

1.I can be reached via telephone at 7034150012 or via the firm's web site: www.Neifeld.com.