# Patentable Subject Matter: BPAI Decisions

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#### Introduction

In this paper, we examine decisions of the Board of Patent Appeals and Interferences (BPAI) of the USPTO that discuss *In re Bilski*. We start by providing a brief summary of the machine-or-transformation test set forth in *In re Bilski*. Then, we provide a brief overview of the BPAI before turning to a discussion of specific observations of various BPAI decisions. In particular, we have divided our discussion of the BPAI decisions into the following areas: 1) Absences of Particular Machines; 2) Preambles; 3) Generic Terms; 4) Implicit Structure; 5) Broadest Reasonable Interpretation; 6) Beauregard Claims; and 7) Transformation.

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#### **Machine-or-Transformation Test**

On October 30, 2008, the U.S. Court of Appeals for the Federal Circuit in *In re Bilski* set forth the "sole test" for determining whether a process claim is directed to patent-eligible subject matter.<sup>1</sup> The test set forth was the "machine-or-transformation test" requiring the process (1) be tied to a particular machine or apparatus or (2) transform a particular article into a different state or thing. The court explained, "the use of a specific machine or transformation of an article must impose meaningful limits on the claim's scope to impart patent-eligibility" and "the involvement of the machine or transformation in the claimed process must not merely be insignificant extra-solution activity."<sup>2</sup> In addition, the court decided to leave to future cases to define the precise contours of the machine branch and "whether or when recitation of a computer suffices to tie a process claim to a particular machine."<sup>3</sup> Under the transformation branch, the court did explain that the transformation of a particular article into a different state or thing "must be central to the purpose of the claimed process."<sup>4</sup> For example, nominal recitations of structure in a method claim do not convert an otherwise ineligible claim into an eligible one.<sup>5</sup>

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#### **Overview of BPAI Decisions**

Because of the nature of the Federal Circuit's decision, the United States Patent and Trademark Office (USPTO) and lower courts were left to fill in many details of the machine-or-transformation test. In this paper, we examine the decisions of the Board of Patent Appeals and Interferences<sup>6</sup> (BPAI) of the USPTO that discuss *In re Bilski*. From October 30, 2008 to September 1, 2009, the BPAI issued 81 decisions that mention *Bilski*.<sup>7, 8</sup> To date, no Precedential Opinions or Informative Opinions<sup>9</sup> have been issued by the BPAI relating to 35 USC §101 under the *Bilski* machine-or-transformation test.

During the time frame examined, the BPAI issued, on average, about eight decisions a month. December 2008 was the slowest month with no decisions. April 2009 was the most active month with thirteen decisions coming from the BPAI. Fig. 1 shows the monthly total number of BPAI decisions discussing *Bilski* from November 30, 2008 through September 1, 2009.

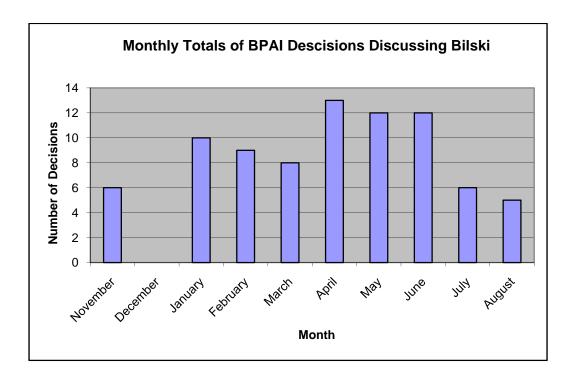


FIGURE 1: MONTHLY TOTALS OF BPAI DECISIONS DISCUSSING BILSKI

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There were seven different outcomes in the BPAI cases examined. The outcomes and the number of cases for each outcome were as follows: 1) the Board entered "new grounds" of rejection under 35 USC §101 in twenty-five cases; 2) the Board "affirmed" the §101 rejection by the examiner in twenty-two cases; 3) the Board "reversed" the 101 rejection by the examiner in ten cases; 4) in eleven decisions, the panel "remanded" the cases to the examiner for consideration of patentability of the subject matter in view of Bilski; 5) in nine cases, the Board reversed some of the examiner's §101 claim rejections while affirming others, thereby "reversing in part and affirming in part"; 6) the panel entered "new grounds and affirmed in part" in three decisions; 7) in one case, the panel entered "new grounds and reversed in part."

Figure 2 shows the distributions of the types of outcomes reported through the decisions made by the BPAI from October 30, 2008 through September 1, 2009.

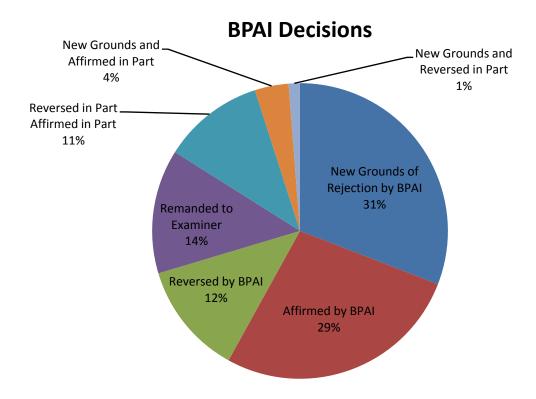


FIGURE 2: DISTRIBUTIONS OF CASE OUTCOMES

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## **Patterns of Specific BPAI Administrative Patent Judges**

For appeals, the BPAI typically creates a panel of three Administrative Patent Judges<sup>10</sup> that are responsible for resolution of the appeal. In some cases, the BPAI may create expanded panels of more than three judges. The expanded panels will also typically comprise an odd number of judges. An expanded panel can be created to decide issues of "exceptional importance," "conflicting decisions by different panels of the Board," "substantial difference of opinion among judges on a significant issue pending before the Board," and/or for various written requests from the Commissioner for Patents.<sup>11</sup> For the cases we examined, three were decided by expanded panels of five judges.<sup>12</sup> However, none of these three decisions indicate why an expanded panel was selected to adjudicate the appeal.

Based on an Administrative Patent Judges' technical or legal discipline, the judges are assigned to a division within the BPAI. Thirty-nine different judges were involved in the eighty-one appeals discussing *Bilski* before the BPAI. Of the thirty-nine judges, six judges had ten or more cases, eleven judges participated in six to nine cases, and twenty-two had five or fewer cases. Based on the number of decisions the judges participated in, the top six judges were MacDonald (twenty cases), Fetting (fifteen cases), Lucas (fourteen cases) Courtenay (thirteen cases), Jeffery (thirteen cases), and Thomas (eleven cases).

### **Decision Rates for Judges on Ten or More Panels**

Table 1 shows the decision rates for the six judges that were on more than ten panels and the decision rates computed for all eighty-one cases ("all-cases"). As can be seen from Table 1, four of the six judges listed, affirmed the examiner more often than the average computed for all of the cases (i.e., more than twenty-seven percent of the time). In addition, only one of the six judges had an examiner reversal rate that was higher than the reversal rate for all cases (i.e., twelve percent).

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Table 1: Decision Rates for most common judges

|           | New     |          |          |          | Reversed<br>in Part<br>and<br>Affirmed | New<br>Grounds<br>and<br>Affirmed | New<br>Grounds<br>and<br>Reversed |
|-----------|---------|----------|----------|----------|--|-----------------------------------|-----------------------------------|
| Judge     | Grounds | Affirmed | Reversed | Remanded | in Part                                | in Part                           | in Part                           |
| MacDonald | 20%     | 50%      | 5%       | 0%       | 25%                                    | 0%                                | 0%                                |
| Fetting   | 33%     | 33%      | 7%       | 0%       | 7%                                     | 7%                                | 13%                               |
| Lucas     | 50%     | 21%      | 14%      | 0%       | 14%                                    | 0%                                | 0%                                |
| Courtenay | 31%     | 54%      | 8%       | 0%       | 8%                                     | 0%                                | 0%                                |
| Jeffery   | 38%     | 23%      | 8%       | 8%       | 23%                                    | 0%                                | 0%                                |
| Thomas    | 45%     | 36%      | 0%       | 0%       | 18%                                    | 0%                                | 0%                                |
| All Cases | 31%     | 27%      | 12%      | 14%      | 11%                                    | 4%                                | 1%                                |

#### Rejection and Allowance Rates for Judges on Ten or More Panels

The decision rates in Table 1 do not reveal the entire story and more information can be extracted from the data. As we will see in Table 2 below, these six judges are more likely to find at least one claim unpatentable under §101 than most other judges. To provide this additional insight for Table 2, we tallied the number of rejections and allowances of the six judges and compared that with the number of rejections and allowances in all the *Bilski*-related cases. More specifically, we generated a "rejection tally" by adding up the number of decisions where at least one claim was rejected, i.e., we added up the following categories: 1) New Grounds by BPAI; 2) Affirmed by BPAI; 3) Reversed in Part and Affirmed in Part; 4) New Grounds and Affirmed in Part; and 5) New Grounds and Reversed in Part. Then, we generated an "allowance tally" be adding up the number of decisions where at least one claim was allowed, i.e., we added up the following categories: 1) Reversed by BPAI; 2) Reversed in Part and Affirmed in Part; and 3) New Grounds and Reversed in Part.

These results are shown in Table 2. Note that the Rejection Tally and Allowance Tally for each judge adds up to more than the total cases for each judge because some cases fall into both the rejection tally and the allowance tally (e.g., cases with a decision reversing in part and affirming in part) and the remanded cases fall into neither category. As a result, the Rejection Percentage and the Allowance Percentage will not total will not necessarily add up to 100%

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TABLE 2: 6 JUDGE REJECTION AND ALLOWANCE RATES

| Judge     | Total<br>Cases | Rejection<br>Tally | Allowance<br>Tally | Rejection<br>Percentage* | Allowance<br>Percentage* |
|-----------|----------------|--------------------|--------------------|--------------------------|--------------------------|
| MacDonald | 20             | 19                 | 6                  | 95.00%                   | 30.00%                   |
| Fetting   | 15             | 14                 | 4                  | 93.33%                   | 26.67%                   |
| Lucas     | 14             | 12                 | 4                  | 85.71%                   | 28.57%                   |
| Courtenay | 13             | 12                 | 2                  | 92.31%                   | 15.38%                   |
| Jeffery   | 13             | 11                 | 4                  | 84.62%                   | 30.77%                   |
| Thomas    | 11             | 11                 | 2                  | 100.00%                  | 18.18%                   |

\*Note that the Rejection Percentage and the Allowance Percentage will not necessarily add up to 100% since a case may fall into both the rejection tally and the allowance tally.

While the amount of data is small, Table 2 leads us to believe that for each of these six judges you are more likely to get a rejection of at least one claim under §101 as compared with the entire pool of judges where the rejection tally was approximately 74.1%, as discussed below.

Figure 3 shows the monthly rejection and allowance tally for the entire set of judges.

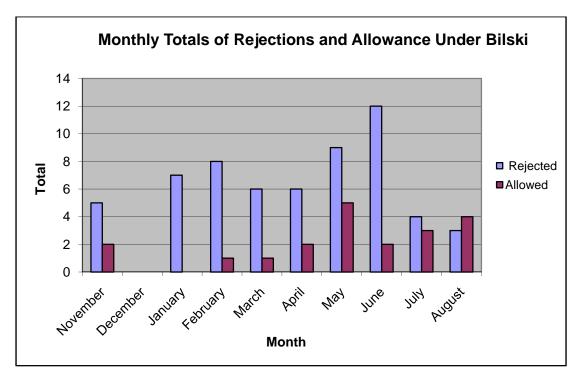


FIGURE 3: MONTHLY DISTRIBUTIONS OF REJECTIONS/ALLOWANCES

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From Fig. 3, it is easy to visually see that the total number of cases with final rejections of at least one claim under §101 significantly outnumber the cases where at least one claim was found to contain patentable subject matter during the examined period. In addition, from Fig. 3, we can see that some of the more recent Board decisions seem to lean more generously toward finding patent-eligible subject matter than decisions in the months just following *Bilski*. Overall, when considering the cases as a whole we found that sixty of the eighty-one cases (i.e. approximately 74.1%) had at least one claim rejected under §101 after a final decision by the BPAI. In only seventeen of the twenty cases (approximately 24.7%), the Board reversed at least one claim that the examiner had found as directed to unpatentable subject matter under §101. Of the eighty-one total decisions, the BPAI made no decision on eleven cases. These cases were remanded to the examiner for further clarification and analysis under §101. Again, note that the numbers don't add up to 100% because some cases fall into both the rejection tally and the allowance tally (e.g., cases with a decision reversing in part and affirming in part) and the remanded cases fall into neither category.

Now that we have examined some statistics around the final decisions, we turn our attention to the rationale for the rejections and allowances. We begin by examining two memos provided to the Examining Corps that provides guidance for examining claims in view of *In re Bilski*.

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#### **Guidance for Examiners and Interim Examination Instructions**

On January 7, 2009, the Deputy Commissioner for Patent Examination Policy, John J. Love, set forth a memorandum to the Examining Corps relating to Guidance for Examining Process Claims in view of *In re Bilski*. In the memo, the Examining Corps were advised that the new guidelines are currently being drafted. On August 24, 2009 the Acting Deputy Commissioner for patent Examination Policy, Andrew H. Hirshfeld, issued new Interim Patent Subject Matter Eligibility Examination Instructions ("the Guidelines).<sup>13</sup> The first paragraph of the Guidelines state the "any perceived failure by Office personnel to follow these instructions is neither appealable nor petitionable." Hence, neither the examiners nor the BPAI Administrative Patent Judges are bound by these Guidelines.

The Guidelines instruct the examiners that patent eligibility considerations under 35 U.S.C §101 require an analysis of subject matter eligibility and utility. The Guidelines continue by stating that a process claim must pass the machine-or-transformation test and indicates that the "mere presence of a machine tie or transformation is <u>not</u> sufficient to pass the test." The tie must be to a "**particular**" machine or the "particular transformation is of a **particular** article."

In addition to commenting on terms and phrases such as "machine," "article," "transformation," "particular," "field-of-use limitations," and insignificant "extrasolution activity," the memo provides the following comments on computer implemented processes:

For computer implemented processes, the "machine" is often disclosed as a general purpose computer. In these cases, the general purpose computer may be sufficiently "particular" when programmed to perform the process steps. Such programming creates a new machine because a general purpose computer, in effect, becomes a special purpose computer once it is programmed to perform particular functions pursuant to instructions from program software. To qualify as a particular machine under the test, the claim must clearly convey that the computer is programmed to perform the steps of the method because such programming, in effect, creates a special purpose computer limited to the use of the particularly claimed combination of elements (i.e., the programmed instructions) performing the particularly claimed combination of functions. If the claim is so abstract and sweeping that performing the process as claimed would cover substantially all practical applications of a judicial exception, such as a mathematical algorithm, the claim would not satisfy the test as the machine would not be sufficiently particular. (Emphasis Added)

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In addition to the Guidelines, the USPTO has provided a set of slides entitled "Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. §101." These slides include a few examples of claims that are considered to be patent eligible and claims that are considered not to be patent eligible. On page 10 of the slides an example is given which indicates certain computer-readable storage mediums are patent eligible. On page 15, the USPTO gives the following example of a method claim that is patent eligible:

A method of evaluating search results, comprising: sorting the results into groups based on a first characteristic; ranking the results based on a second characteristic; and comparing, <u>using a microprocessor</u>, the ranked results to a predetermined list of desired results to evaluate the success of the search.

The slide states that there is a "particular machine" because the "step of comparing requires a particularly programmed microprocessor." In addition, the machine imposes a meaningful limit and is more than insignificant extra-solution activity because "the step of comparing is central to the method…"

As we will discuss in more detail below, various BPAI judges have found that the generic recitation of processors and other elements are not enough to satisfy the machine prong of the machine-or-transformation test. Also, many BPAI cases adopt variants of the rationales presented in the Guidelines (e.g., "field-of-use," "broadest reasonable interpretation," "extra-solution activity," etc.) for rejecting the claims under *Bilski* machine-or-transformation test.

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## **Specific Observations of the Board**

In this section, we provide some specific observations of various BPAI decisions. We point out some common themes we found from our analysis of the decisions. In addition, we point out cases that are in disagreement. As such, we do not discuss every decision. It is also worth noting that many of the decisions only provide brief statements of the rationale which can sometimes be confusing. With this in mind, we have divided our discussion into the following areas: 1) Absences of Particular Machines; 2) Preambles; 3) Generic Terms; 4) Implicit Structure; 5) Broadest Reasonable Interpretation; 6) Beauregard Claims; and 7) Transformation.

#### **Absence of Particular Machines**

The machine prong of the machine-or-transformation test states that the claimed process must be "tied to a particular machine or apparatus." As such, claims that do not recite, or require the steps be performed on, or by, a particular machine or apparatus will not pass the machine prong of the machine-or-transformation test. For example, claims with steps such as "determining," "comparing," "providing," "selecting," and the like without any structure did not pass the machine prong of the machine-or-transformation test as applied by the BPAI. Similarly, an unspecified "processing" or "computing" device performing the claimed algorithm is "generally" not going to be sufficient to tie the claimed process to a "particular" machine or apparatus. There seem to be some exceptions to this general rule where BPAI panels found implicit structure. We discuss these cases below in the subsection entitled Implicit Structure.

For example, in *Ex Parte Gutta*<sup>16</sup> the panel noted that the step of "displaying" need not be performed by any particular structure and may be accomplished by writing the resulting score on a piece of paper. In *Ex Parte Barnes*, <sup>17</sup> the Board noted that the claims neither specifically call for a machine nor reference a machine and that the adding of a data-gathering step to a process claim is insufficient to convert a process into a patent eligible process. In this case, the panel also noted that displaying of the data (i.e., in claims 31-34) without more (e.g., a reference as to how and why it is displayed) is "insignificant postsolution activity" and as such will not transform the claimed method into a patentable method.

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#### **Preambles**

Many decisions from the BPAI also discussed the use of computers, memory, displays, and computer-based phrases in the preamble. For example, phrases such as "a computer-based method," "a programmed computer," "a computerized method," "[a] method of identifying relationships between users of a computerized network," a method "for a monitoring device," and the like were usually of little help in avoiding a rejection under the machine-or-transformation test. These types of phrases were generally considered to be merely field of use recitations. The court in *Bilski* noted that eligibility under §101 "cannot be circumvented by attempting to limit the use of the formula to a particular technological environment." <sup>18</sup>

In general, "[t]he preamble of a claim does not limit the scope of the claim when it merely states a purpose or intended use of the invention." More specifically, "[i]f...the body of the claim fully and intrinsically sets forth the complete invention, including all of its limitations, and the preamble offers no distinct definition of any of the claimed invention's limitations, but rather merely states, for example, the purpose or intended use of the invention, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation." The weight given a field of use limitation "[depends upon if] that statement is intimately meshed with the ensuing language in the claim." Consequently, if the only reference in the claim to the structure was in the preamble, these types of phrases were generally considered to be merely field of use recitations and failed to tie the claim to any particular machine or apparatus. 22, 23

For example, claim 1 in *Ex Parte Mitchell*<sup>24</sup> recites a "method for identifying coevolving regions in the memory of a target application." The Board concluded that the "preamble thus recites the purpose of the steps recited in the body of the claim, rather than requiring that some 'memory' apparatus be involved in the actual steps." As another example, in *Ex Parte Dom*<sup>25</sup>, the preambles of independent claims 1, 7, and 13 recite "[a] method of identifying relationships between users of a computerized network." In this case, the Board found this is simply a field of use limitation and insufficient to make Appellants' claims patent-eligible.

In *Ex Parte Halligan*<sup>26</sup>, the preamble recited "a programmed computer method." The Board found that even though each of the process steps were being performed by the programmed computer, the claim failed "to impose any meaningful limits on the claim's scope as it adds nothing more than a general purpose computer that has been programmed in an unspecified manner to implement the functional steps recited in the claims."

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Similarly, in *Ex Parte Gutta*<sup>27</sup> the Board found the recitation in the preamble of "[a] computerized method performed by a data processor" also failed for similar reasoning.

In addition to rejections based on mere field of use, many decisisions noted a claim preamble was not recited in terms of "hardware or tangible structural elements." For example, in *Ex Parte Scholl*, <sup>28</sup> the preamble of claim 1 recited a "computer-based" method. Here, the Board found that the recitation of "computer-based" in claim 1 "is not recited in terms of hardware or tangible structural elements" and that the "computer-based" method "could be implemented ... solely in software or algorithms." Thus, the nominal recitation of "computer-based" in the preamble is not directed to a particular processor under the machine-or-transformation test. In *Ex Parte Motoyama*, <sup>29</sup> the preamble of claim 1 recited a method "for a monitoring device." Again, the Board found the method of claim 1 is not recited in terms of "hardware or tangible structural elements" and that "the method could be implemented on a software system, where the elements of claim 1 are implemented solely in software or algorithms."

Ex Parte Buhan<sup>30</sup> and Ex Parte Dickerson<sup>31</sup> are examples of preamble language that was found to be more than mere functional language. In Ex Parte Buhan a receiver/decoder unit having a local storage unit is mentioned in the preamble. Of particular importance in this case was the fact that the storage unit and the security unit were again recited in the first and second steps of the claims for storing the encrypted content and for storing the system keys. The Board found these elements sufficient for satisfying the "particular machine" prong of the Bilski machine-or-transformation test because "[b]oth the local storage unit and the security unit constitute tangible, solid, real-world machines, the former exemplified by a magnetic hard disk, and the latter by a smart card (See Fig. 1)."

In *Ex Parte Dickerson*, claims 23, 29, and 30 recite "a computerized method" which includes a step of "outputting information from a computer." The Board concluded that the claim is therefore tied to a particular machine or apparatus. This seems to be in direct contrast to the guidance provided to the examining corp that specifically stated "reciting a specific machine or a particular transformation of a specific article in an insignificant step, such a [sic] data gathering or outputting, is not sufficient to pass the test." Remember, however, that the Board is not bound to follow the Guidelines provided to the Examiner or other Board decisions that are not Precedential.

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#### Generic Terms

The nominal recitations of generic structural elements within the claims were of little help in satisfying the machine prong of the machine-or-transformation test. Examples of generic terms that were of little benefit include "processor," "memory," "machine processing unit," and "user output device." In particular, the recitation of a "processor" in combination with purely functional recitations of method steps, where the functions are implemented using an unspecified algorithm, is insufficient to transform otherwise unpatentable method steps into a patent eligible process.

For example, in *Ex Parte Cornea-Hasegan*, <sup>32</sup> claim 1 recites a series of process steps performed by a "processor." The Board found that the recitation of a processor performing various functions fails to impose any meaningful limits on the claim's scope. Moreover, the Board found the processor was nothing more than a general-purpose computer that was programmed in an unspecified manner to implement the functional steps recited in the claims.

In *Ex Parte Snyder*, <sup>33</sup> *c*laims 1 and 19 were directed to a "text to XML transformer." Claim 19 reads as follows:

19. A text to XML transformer, comprising:
 a wizard for creating a transformer document;
 the transformer document having a plurality of
 compound statements formed by a text to XML
 computer language; and
 <u>a processor</u> for executing the transformer document
 and converting an input text document into an
 XML document.

The Board interpreted the claim to read on a "software program" that, when executed, implements a series of program steps (i.e., a process) to convert the text to XML. The Board held that the recited "processor" in claims 1 and 19 is not a component of the transformer program itself but merely intended to be used to execute the program steps or functions of the transformer program. In addition, the Board noted that there does not appear to be anything special about the claimed processor claim in the claim or in the specification. For example, the specification does not disclose a new hardware design and the processor is not in means-plus-function format. The Board continues by stating that even if it was in means-plus-function format, the only structure shown is a block diagram of a processor that would include any and every possible processor for performing the functions. Therefore, claims 1 and 19 cover any and every possible

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digital computer for executing the transformer program and do not define a specific patent-eligible "machine" under § 101.

In *Ex Parte Goud*, <sup>34</sup> claim 1 was a method claim that recited "[a] method comprising: providing at least two selectable processor abstraction layer B components within one basic input/output system program." According to the specification, "[t]he lowest level of the BIOS may be the processor abstraction layer (PAL) that communicates with the hardware, particularly the processor." The Board commented that while "the PAL is intended to communicate with hardware (e.g., the processor) (FF 2), the claim is silent regarding these hardware elements." Such "a nominal structural recitation would be tantamount to a general purpose computer and would not tie the process to a particular machine or apparatus." Similarly, in *Ex Parte Enenkel*, <sup>35</sup> the Board found the mere recitation of a generic "machine processing unit" in the method does not tie the method to a "particular" machine or apparatus. In *Ex Parte Daughtrey*, <sup>36</sup> the last step of the method recites displaying the summary on a "user output device" that the Board found is not a particular machine.

In *Ex Parte Mitchell*,<sup>37</sup> the use of a "processor" and "memory" for storing and performing a set of broadly recited "instructions" for "identifying" and "classifying constituents" of data structures of claim 11 would be, in practical effect, a patent on the abstract idea of as recited. The claim requires only that the "memory" is "for storing the instructions." Hence, limiting the claim to part of a system comprising a "processor" and "memory" does not add any practical limitation to the scope of the claim.

In addition to nominal recitations of generic structural elements followed by functional language, some Board decisions found the involvement of the machine was merely insignificant extra-solution activity.<sup>38</sup> For example, in *Ex Parte Daughtrey*, method claims 28-35 recite a single process step of rendering data on a "monitor" for providing a fare rule summary tool as a user interface for display on a monitor. The Board found that monitor has not been specially configured to make it capable of rending the particular data and as such rendering data on a monitor fails to impose any meaningful limits on the claim's scope, as it adds nothing more than a general-purpose display device that is capable of displaying data generally.

Ex Parte Dickerson and Ex Parte Altman<sup>39</sup> are two cases where the Board found the computer or process was tied to a particular machine. As discussed above, claims 23, 29, and 30 in Ex Parte Dickerson were tied to a particular machine because the claims recite a computerized method that includes a step of "outputting information from a computer." In Ex Parte Altman, claim 21 recites a host multiprocessor system that emulates a target

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n-processor system. From this, the Board found the claim imposes meaningful limits because the host processor emulates a target system's memory addressing causing it to behave like the target processor.

In *Ex Parte Casati*,<sup>40</sup> the Board reversed the rejection of claims 1-4 and 13-16 under 35 U.S.C. § 101 because the memory/warehouse element ties the claims to a particular machine or apparatus. In this case, the Board relied on the specification unequivocally describing the data warehouse as part of the overall system apparatus, and subsequent descriptions describing the memory/warehouse device in terms of machine executable functions.

In Ex Parte Myka, 41 independent claim 14 recited:

14. A method for wireless bonding of devices and communicating media file transfer parameters, the method comprising:

monitoring, at a <u>master device</u>, an area of interest for the presence of potential bondable devices;

receiving, at the <u>master device</u>, a presence signal from a potential bondable device;

determining bond capability of the potential bondable device;

approving the potential bondable device as a bonded device; and

communicating, from the master device to the bonded device, media file transfer parameters, including definition of the media file metadata that is to be included with a captured media file.

The Board concluded that "[t]he independent claims includes 'communicating information between the master device and the bonded device" and therefore is tied to a particular machine or apparatus."

## **Implicit Structure**

While the recitation of general structural components may not be enough, sometimes an implicit structure is enough to satisfy the machine-or-transformation test. For example, consider claim 1 in *Ex Parte Borenstein*<sup>42</sup> where there is no mention of any type of physical device:

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1. A method for providing catalog information for presentation to a user of a store in an electronic commerce system, comprising the steps of: storing a first portion and at least a second portion of said catalog information in said store and in at least one profile store, respectively, to share said at least one second portion of said catalog information between said store and at least one second store; and storing path information defining a sequential relationship between said store and said at least one profile store for retrieving said catalog information for said store.

In this case, the Board found the recitation of a structured relationship between multiple stores that requires "path information" inherently implies that this information must be stored on a computer or database. Furthermore, this "particular" computer or database is sufficient structure to meet the machine prong of the machine-ortransformation test of *In re Bilski*.

The outcomes in *Ex Parte Hardwick*<sup>43</sup> and *Ex Parte* Nawathe<sup>44</sup> were less successful. In *Ex Parte Hardwick* the Board noted the claim contains no limitations directed to any particular machine despite the "clear intent" for the computation of *coefficients* of a digital filter to be implemented as a software process. Independent claim 1 in *Ex Parte Nawathe* recites "a computerized method." In this case, the Board found "the computerized recitation purports to a general purpose processor, as opposed to a particular computer specifically programmed for executing the steps of the claimed method." From this, the Board found the recitation to be insufficient to constitute a particular machine.

#### **Broadest Reasonable Interpretation**

By giving claims their broadest reasonable interpretation, the Board found many of them unpatentable as not tied to particular machines. For example, claim 24 in *Ex Parte Schultz*<sup>45</sup> recites, "sending to the human user, via an interface." The Board found the claim unpatentable since "nothing in the claims or Specification limits this interpretation to an interface for a machine, let alone an audible, interactive user interface for navigating a system." (*Emphasis added*.) In *Ex Parte Shahabi*, <sup>46</sup> the Board construed the scope of "database" as "encompassing a collection of data elements in the abstract" and that the two steps of "processing" and "performing" could be performed as mental steps. In *Ex Parte Altman*<sup>47</sup>, the Board concluded that the scope of the recited "system" covers

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"both statutory (hardware based) and non statutory (disembodied software or computer program per se) embodiments."

In Ex Parte Avinash, 48 claim 10 recites an imaging method including the steps of "(1) generating a first derived member of a first dataset; (2) generating a first derived member of a second dataset; (3) comparing a temporal change between the derived members; and (4) generating a temporal change image." The Board noted the claim "is also not limited in any way by how the datasets or the temporal change image is generated or how the derived members are compared." The Board concluded that claim 10 can therefore be performed using "paper or in one's mind" and that such "mental processes" are not patent eligible. The decision continued by noting that even though the specification states that the "dataset generator" and "temporal comparator" are located within a temporal processing unit, "these steps may be performed or executed by a general purpose computing system (e.g., a temporal processing unit)" and that a general purpose computing system does not tie a claim to a particular machine. Therefore, the claim is not tied to a particular machine.

In Ex Parte Harris, 49 the Board found that claims 5-7 and 28-32 recite a series of process steps that do not limit the steps to any specific machine or apparatus. Interestingly, both claims refer to submitting bids and conducting an auction over a "network." However, the Board reasoned that the claims do not specify an electronic network as contrasted with societal network. Similarly, the Board concluded that submitting bids to a "server" in claim 5 within an auction context is not limited to an electronic server, as any auction staff collecting such bids would be (human) servers. The Board continued by stating that "[e]ven if the network and server in those claims were construed as electronic, the claims would still fail the first prong" because they are field-of-use limitations of communication channels. More specifically, the Board said that "[w]ere 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 preemption of the fundamental principle present in the non-machine implemented method by the mere recitation of a 'network' and 'server."

Under the broadest reasonable interpretation doctrine, the Board even rejected some system claims under §101.<sup>50</sup> For example, in Ex Parte Atkin the specification indicated that the invention was generally related to breaking each domain name into a plurality of

Patentable Subject Matter: BPAI Decisions Page 18 of 31 September 2009 individual labels separated by full stop characters (i.e., periods) and independently evaluating each label for proper bidirectional display order. Claim 9 is as follows:

- 9. <u>A system</u> for converting a unidirectional domain name to a bidirectional domain name comprising:
  - <u>a label definer</u> adapted to establish a plurality of labels within a unidirectional domain name by using a predetermined full stop punctuation mark as a delimiter between said labels, said labels having an original label display order as encountered from left to right;
  - <u>an inferencer</u> adapted to, within each said label, resolve the direction of indeterminate characters by assigning a strong direction left or right to each indeterminate character; and
  - a character reorderer adapted to reorder said characters within each said label of said unidirectional domain name into character display order using the fully resolved characters previously inferenced, thereby converting said uni-directional domain name to a bidirectional domain name in which said original label display order is preserved, and bidirectionality of characters within each label is produced.

The Board found that the term "system" in the preamble is "broad enough to read on a method and thus does not imply the presence of any apparatus." In addition, the Board found that the recitation of a "label definer," an "inferencer," and a "character reorderer" fail to serve as structural limitations because they are not "means" recitations and encompass any and all structures for performing the recited functions. On an interesting note is that fact that the elements of system claim 9 were almost identical to method claim 1. The system claim recited "a label definer adapted to," "an inferencer adapted to," and "a character reorderer adapted to" perform the corresponding method steps in claim 1.

Claim 1 in *Ex Parte Giacchetti* <sup>51</sup> recites enabling and facilitating. The Board found these steps to include "indirect activity such as providing access to software, providing access to a network site, cooperating with a third party who aids a user, or by participating in any way in activities that aid a user in what is enabled or facilitated." The Board concluded that these elements may be construed to be providing access to software or aiding a user. While the software or user might then go on to actually perform what is facilitated or enabled, the broadest reasonable construction would not necessarily include that performance within the scope of the three steps in claim 1. As a result, under the

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machine-or-transformation test, the claims were found to be not patent-eligible under 35 U.S.C. § 101.

## **Beauregard Claims**

The various panels of judges have been inconsistent with regard to Beauregard claims. Some panels of judges have found that these types of claims do not need to be analyzed under the machine-or-transformation test, while others have analyzed these claims in accordance with this test. For example, In *Ex Parte Li*, the Board recognized that "[i]t has been the practice for a number of years that a 'Beauregard Claim' of this nature be considered statutory at the USPTO as a product claim." Similarly, in *Ex Parte Borenstein*, <sup>52</sup> the Board noted that claim 15 recites a computer program product and that "it is not a method claim that must be analyzed under *In re Bilski*."

Unlike the two aforementioned decisions, other Boards have found Beauregard claims unpatentable. For example, in *Ex Parte Cornea-Hasegan*, <sup>53</sup> claim 18 recites "computer readable media." The Board stated the following:

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 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*).

Here the Board concluded that the recitation of a computer readable media is insignificant extra-solution activity and that "limiting the claim to computer readable media does not add any practical limitation to the scope of the claim" and that "[s]uch a field-of-use limitation is insufficient to render an otherwise ineligible claim patent eligible."

In *Ex Parte Mitchell*,<sup>54</sup> the panel found that '[a]lthough a 'computer readable medium' may nominally fall within the statutory class of 'manufacture,' [it] would effectively pre-empt the abstract idea represented by instant claim 1." The Board continued its reasoning by noting that "[p]lacing the method ... of "receiving

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information" and "classifying" constituents ... on a computer readable medium in the form of "instructions" does not render the claimed subject matter statutory." As a result, they treated the Beauregard claim as the method that does not require a computer to do anything and found it unpatentable.

Claim 1 in *Ex Parte Isaacson*<sup>55</sup> is directed to a "method implemented in a computer-readable medium to aggregate an identity, comprising:..." The Board found that the steps "may be embodied in software alone or alternately could be performed as mental steps upon broadly conceptualized concepts of data." As a result, the claim was found unpatentable.

In both Ex *Parte Zybura*<sup>56</sup> and *Ex Parte Daughtrey*, <sup>57</sup> the Board found that the claims were directed to computer instructions embodied in a signal and was therefore not statutory by *In re Nuijten*. <sup>58</sup> Interestingly, in *Ex Parte Daughtrey*, the phrase "computer readable medium" was only mentioned in the claim and not defined or discussed in the specification. The Board found that the phrase "computer readable medium" was routinely used at the time of invention to refer to both tangible and intangible media and the claim was therefore unpatentable. In contrast, *Ex Parte Holmstead*, <sup>59</sup> recited a computer-readable medium that was found to be a machine when interpreted in view of the specification. In this case, the specification indicates that a computer-readable media can be ROM and/or firmware that is a component of the printer

#### **Transformation**

As previously discussed, the court in *Bilski* declined to decide under the machine branch whether or when recitation of a computer suffices to tie a process claim to a particular machine.<sup>60</sup> However, the court provided more guidance for the transformation branch of the inquiry. In particular, the court explained that chemical or physical transformation of physical objects or substances is patent-eligible under § 101. The transformation of data can be sufficient to render a process patent-eligible.<sup>61</sup> The court indicated that if the data represents physical and tangible objects, then it would be patent-eligible. In contrast, a claim will not satisfy the transformation branch if the data does not specify any particular type or nature of data and does not specify how or where the data was obtained or what the data represented.

During the period examined, no decision by the Board applying the machine-or-transformation test found that a claim satisfied the transformation branch. For example, claim 1 in *Ex Parte Hardwick*<sup>62</sup> recited synthesizing digital speech samples from speech

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model parameters. The Board found the claim did not satisfy the transformation branch because the claim does not "specify how those parameters were obtained, nor recite transformation of raw data into a visual depiction, or any other analogous depiction (e.g., audio output) that would be cognizable by a human operator."

In *Ex Parte Nawathe*, the Board noted that the "creating" step in the claim can be argued to transform the input XML documents into represented data (i.e. a different state). However, they found the documents represent data that represent an article and therefore the documents are not an article (i.e. physical entities). In *Ex Parte Halligan*, the Board found that the "data represents information about a trade secret, which is an intangible asset." In *Ex Parte Verhaegh*, <sup>63</sup> process claims 1-5 failed the transformation portion of the test because the data processed in the claims information about schedules that are not physical or tangible objects.

Ex Parte Caputo<sup>64</sup> included an independent claim reciting a process of graphically displaying variances of data from average values. The claim was held non-statutory because it did not specify any particular type or nature of data, nor how or from where the data was obtained or what the data represented. The Board reasoned that claim 1 does not require that the steps be performed by a machine; as such, there is no electronic transformation of data. In addition, the Board noted that the claim purports to be a "method of generating a waveform," but requires no output "waveform" and that even if a resultant waveform were output to a display, the output waveform would not be representative of a particular tangible and physical object, but merely a visual representation of a mathematically generated waveform. Hence, the claim did not satisfy the transformation branch.

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#### **Conclusion**

We have examined some of the BPAI cases discussing patentable subject matter under *Bilski*. We have seen a variety of reasoning regarding rejections and allowance of claims under the machine-or-transformation test. In addition, we have seen that the Board introduced new grounds of rejection under §101 in approximately one-third of the cases we examined. We have categorized the decisions into the following areas: 1) Absences of Particular Machines; 2) Preambles; 3) Generic Terms; 4) Implicit Structure; 5) Broadest Reasonable Interpretation; 6) Beauregard Claims; and 7) Transformation. We highlighted repetitive rationales within each of these areas and pointed out decisions with seemingly different and/or contradictory outcomes.

The United States Supreme Court has granted certiorari in *In re Bilski*. As a result, the test for patentable subject matter may change within the next year. Currently, oral arguments are set for November 9, 2009. However, understanding some of the current rationales provided by the BPAI Administrative Patent Judges can be useful for arguing cases at the Board as well as responding to Office actions before the Supreme Court comes to a final decision.

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# **Appendix – List of Cases**

| Case                   | Disposition on Patent Eligible Subject<br>Matter | Key Terms   |
|------------------------|--|---|
| Ex Parte Schrader      | Reversed   | Advertisement, Interactive<br>Channels, Internet, World Wide<br>Web   |
| Ex Parte Holtz et al   | New Grounds                                      | File Structure, Mental Steps,<br>Comparator, Field of Use<br>Limitations, Computer Readable<br>Medium (Nuijten) |
| Ex Parte Forman        | Affirmed In Part, Reversed In Part               | Binary Partitions, Preamble,<br>Computer-Implemented<br>Method, Classifier, Memory,<br>Computer Readable Medium |
| Ex Parte Gutta et al   | Affirmed In Part, Reversed In Part               | Mental Steps, Mathematical<br>Algorithm Exception   |
| Ex Parte Bodin et al   | Reversed   | Digital Imaging, Computer<br>Readable Medium, Computer<br>Program Product                                       |
| Ex Parte Haworth et al | New Grounds                                      | Collecting Payments   |
| Ex Parte Casati        | Reversed   | Generic Structure,<br>Memory/Warehouse Device,  |
| Ex Parte Butz          | New Grounds                                      | Knowledge Database,<br>Insignificant Postsolution<br>Activity   |
| Ex Parte Goud et al    | Affirmed   | Generic Structure, General<br>Purpose Computer, Processor,<br>Processor Abstraction Layer<br>(PAL)              |
| Ex Parte Dickerson     | Reversed   | Preamble, Computerized Method, Outputting Information from a Computer   |
| Ex Parte Cherian et al | Affirmed in part, Reversed in part               | Sequence Verifier, Software Per<br>Se   |
| Ex Parte Dang          | New Grounds                                      | Preamble, Computer-<br>Implemented Method   |
| Ex Parte Hardwick      | Affirmed   | Implicit Structure, Digital Filter,<br>Intent to be Implemented as<br>Software                                  |
| Ex Parte Roberts et al | Affirmed   | Absence of Particular Machine,<br>Tax, Real-Estate  |
| Ex parte Caputo        | Affirmed   | Transformation, Graphically Displaying  |
| Ex parte Toth          | Affirmed   | Absence of Particular Machine,<br>Game  |
| Ex parte Toth          | Affirmed   | Absence of Particular Machine,<br>Game, League Players  |
| Ex Parte Verhaegh      | Reversed<br>New Grounds                          | Transformation, Schedules   |

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| Case                       | Disposition on Patent Eligible Subject<br>Matter               | Key Terms   |  |
|----------------------------|--|---|--|
| Ex parte Johnson           | Affirmed   | Claims not within four categories eligible for patent protection; Server Process  |  |
| Ex parte Johnson           | New Grounds  | Absence of Particular Machine,<br>Credit Decisions  |  |
| Ex parte Petculescu        | Affirmed in part(claims 1-36), Reversed in part (claims 42-48) | Automated model building system, Functional Limitations, Computer Readable Medium                                       |  |
| Ex parte Avinash           | New Grounds  | Broadest Reasonable<br>Interpretation, Mental Steps,<br>General Purpose Computer  |  |
| Ex parte Farnes            | New Grounds  | Absence of Particular Machine,<br>Customer Experience Issue   |  |
| Ex Parte Dom, et al        | New Grounds (claims 1-16)                                      | Preamble, Computerized Network, Field of Use Limitation   |  |
| Ex Parte Altman, et al     | Affirm in part, Reverse in Part (claims 21-37)                 | Generic Structure, Multiprocessor System, Broadest Reasonable Interpretation, System                                    |  |
| Ex Parte Babu, et al.      | New Grounds  | Absence of Particular Machine,<br>Reliability Characteristics   |  |
| Ex Parte Busche            | Affirmed in part, Reversed in part                             | Absence of Particular Machine,<br>Predicting Customer Behavior,<br>Computer-Readable Medium                             |  |
| Ex Parte Delta et al       | Reversed<br>New Grounds (claims 23-29)                         | Computer System, Trade<br>Filtering, Absence of Particular<br>Machine   |  |
| Ex Parte Holmstead, et al. | Reversed   | Computer-Readable Medium  |  |
| Ex Parte Salinkas          | New Grounds (claims 1-2, 5-9)                                  |   |  |
| Ex Parte Myka, et al.      | Reversed 101 (claims 14-23)                                    | Generic Structure, Master<br>Device, Bonded Device  |  |
| Ex Parte Snyder            | Affirmed (claims 1-21)   | Generic Structure, Text to XML<br>Transformer, General Purpose<br>Computer, Processor                                   |  |
| Ex Parte Gennaro           | New Grounds  | Absence of Particular Machine,<br>Knowledge Network   |  |
| Ex Parte Labadie, et al.   | Affirmed   | Correlator, Data Structure  |  |
| Ex Parte Mau, et al.       | New Grounds  | Object Model, Natural Language Input, Semantic Object, Instructions, Data Structures, Modules, General Purpose Computer |  |
| Ex Parte Greene            | Affirmed   | Computer System, Broadest<br>Reasonable Interpretation,<br>Vector Processors, Abstract<br>Idea, Generic Structure       |  |
| Ex Parte Shahabi, et al.   | Affirmed   | Broadest Reasonable<br>Interpretation, Database,<br>Processing, Performing, Mental<br>Steps                             |  |

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| Case                          | Disposition on Patent Eligible Subject<br>Matter   | Key Terms  |  |
|-------------------------------|--|--|--|
| Ex Parte Millin et al         | Remanded   |  |  |
| Ex parte Bonnery et al        | Remanded   |  |  |
| Ex Parte Hung et al           | Remanded   |  |  |
| Ex parte Halow et al          | Remanded   |  |  |
| Ex Parte Mohindra et al       | Remanded   |  |  |
| Ex Parte Nevin et al          | Remanded   |  |  |
| Ex Parte Buhan, et al.        | Reversed (claims 1-11)   | Preamble, Receiver/Decoder<br>Unit   |  |
| Ex Parte Bodin, et al.        | Affirmed (claims 1-8)<br>Reversed (claims 9-16) – System Claims  | Administering Devices  |  |
| Ex Parte Halligan, et al.     | Affirmed (Claims 96-101, 103-104) Court does not reach issue of whether examiner erred in rejecting claims 114-118 under 101 | Preamble, General Purpose<br>Computer, Programmed<br>Computer Method, Trade Secret                             |  |
| Ex Parte Daughtrey            | Affirmed (claims 1-14)<br>New Grounds (claims 15-39)   | Computer-Readable Medium,<br>Generic Structure, User Output<br>Device, Monitor                                 |  |
| Ex Parte Enenkel, et al.      | Affirmed   | Generic Structure, Machine<br>Processing Unit  |  |
| Ex Parte Berkun, et al.       | New grounds (claims 1-8, 11-17)  | Absence of Particular Machine,<br>Metadata   |  |
| Ex Parte Arning, et al.       | Affirmed   | Absence of Particular Machine  |  |
| Ex Parte Borenstein, et al.   | Reversed (claims 1 and 15)   | Implicit Structure, Path Information, Computer, Database, Computer-Readable Medium                             |  |
| Ex Parte Schultz              | New Grounds (claims 24-26, 29-30)  | Broadest Reasonable<br>Interpretation, Interface   |  |
| Ex Parte Sesek, et al.        | New Grounds (claims 1-17)  | Absence of Particular Machine,<br>Mail   |  |
| Ex Parte Schneidereit, et al. | Remanded   |  |  |
| Ex Parte Giacchetti           | Affirmed   | Broadest Reasonable<br>Interpretation, Network Site  |  |
| Ex Parte Susarla, et al.      | New Grounds (claims 25 & 41)   | Broadest Reasonable<br>Interpretation, Abstract Idea,<br>Memory Object Locks, Absence<br>of Particular Machine |  |
| Ex Parte Motoyama et al.      | New Grounds (claim 1)  | Preamble, Monitoring Device  |  |
| Ex Parte Appel et al          | Remanded   |  |  |
| Ex Parte Hoya                 | Affirmed   | Broadest Reasonable<br>Interpretation, Artificial Neural<br>Network Unit                                       |  |
| Ex Parte Isaacson             | Affirmed   | Computer-Readable Medium   |  |
| Ex Parte Mitchell et al       | Affirmed   | Preamble, Memory, Computer-<br>Readable Medium, Generic<br>Structure, Processor, Memory,<br>Abstract Idea      |  |
| Ex Parte Nakamura et al       | New Grounds  | Absence of Particular Machine  |  |
| Ex Parte Nawathe et al        | Affirmed in part (claims 1,16), and Reversed in part (claim 25)  | Implicit Structure,<br>Computerized Method, General  |  |

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| Case                    | Disposition on Patent Eligible Subject<br>Matter                              | Key Terms   |  |
|-------------------------|---|---|--|
|                         |   | Purpose Processor   |  |
| Ex Parte Scholl et al   | New Grounds   | Preamble, Computer-Based<br>Method  |  |
| Ex Parte Zybura et al   | Affirmed  | Computer-Readable Medium (Nuijten)  |  |
| Ex Parte Ahmed          | Remanded  |   |  |
| Ex Parte Sharma         | Remanded  |   |  |
| Ex Parte Bhogal         | Remanded  |   |  |
| Ex Parte Atkin          | New Grounds   | Broadest Reasonable<br>Interpretation, System Claims,<br>Domain Names, Preamble,                  |  |
| Ex Parte Becker         | New Grounds (claims 7, 11, 13)  | Absence of Particular Machine   |  |
| Ex Parte Barnes         | New Grounds (claims 1-19 and 30-34)   | Data-Gathering Step, Displaying, Insignificant Postsolution Activity                              |  |
| Ex Parte Gutta          | Affirmed  | Preamble, Computerized<br>Method, Displaying  |  |
| Ex Parte Mooney         | New Grounds (claims 50-67)  | Absence of Particular Machine   |  |
| Ex Parte Harris         | Affirmed in part, and New Grounds (Claims 5-7, 28-32)                         | Broadest Reasonable<br>Interpretation, Submitting Bids,<br>Auction, Network, Server               |  |
| Ex Parte Cornea-Hasegan | Affirmed  | Computer-Readable Medium,<br>Generic Structure, Processor,<br>General Purpose Computer            |  |
| Ex Parte Koo            | New Grounds   | Broadest Reasonable Interpretation, Absence of Particular Machine, Relational Database Management |  |
| Ex Parte Halligan       | Affirmed  | Preamble, Programmed Computer Method, General Purpose Computer                                    |  |
| Ex Parte Noguchi        | New Grounds (claims 12-18)  | Absence of Particular Machine,<br>Intended Use  |  |
| Ex Parte Uceda-Sosa     | Affirmed in Part (claims 1-12 and 21-24), and Reversed in Part (claims 13-20) | Absence of Particular Machine,<br>Computer-Readable Medium  |  |
| Ex Parte Godwin         | Affirmed  | Absence of Particular Machine,<br>Server  |  |
| Ex Parte Li             | Reversed  | Computer-Readable Medium  |  |

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According to the "Board of Patent Appeals and Interferences Standard Operating Procedures 2 (Revision 7) Publication of Opinions and Binding Precedent," (available at

http://www.uspto.gov/web/offices/dcom/bpai/sop2.pdf) the "purpose of a Precedential opinion is to create a consistent line of authority as to a holding that is to be followed in future Board decisions." In addition, Precedential opinions are limited to those meeting one or more of the following criteria: 1) The case is a test case whose decision may help expedite resolution of other pending appeals or applications. 2) An issue is treated whose resolution may help expedite Board consideration of other cases or provide needed guidance to examiners or applicants pending court resolution. 3) A new rule of law is established. 4) An existing rule of law is criticized, clarified, altered or modified. 5) An existing rule of law is applied to facts significantly different from those to which that rule has previously been applied. 6) An actual or apparent conflict in or with past holdings of this Board is created, resolved, or continued. 7) A legal issue of substantial public interest, which the Board has not treated recently, is resolved. 8.) A significantly new factual situation, likely to be of interest to a wide spectrum of persons other than the party (or parties) to a case is set forth. 9) A new interpretation of a Supreme Court decision, a decision of the Court of Appeals for the Federal Circuit, or of a statute, is set forth.

The second type of opinion is an Informative opinion. The Standard Operating Procedures document states that "Informative opinions are not binding, but illustrate norms of Board decision-making for the public, the patent examining corps, and future Board panels. Informative opinions may explain best practices, address recurring problems, identify developing areas of the law, exemplify types of decisions under-represented in commercial case reporting services, or report cases of public interest."

The third type of decisions are routine opinions. In fact, the Standard Operating Procedures document notes that "most opinions and orders will be Routine, and will not be designated as Precedential or Informative."

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<sup>&</sup>lt;sup>1</sup> In re Bilski, 545 F.3d 943 (Fed. Cir. 2008) (en banc)

<sup>&</sup>lt;sup>2</sup> *Id.* at 961-962 (citations omitted).

<sup>&</sup>lt;sup>3</sup> *Id*.

<sup>&</sup>lt;sup>4</sup> *Id*.

<sup>&</sup>lt;sup>5</sup> *Id.* at 957.

<sup>&</sup>lt;sup>6</sup> One of the main responsibilities of the Board is "the review of ex parte appeals from adverse decisions of examiners in those situations where a written appeal is taken by a dissatisfied patent applicant." See, e.g., http://www.uspto.gov/go/dcom/bpai/index.html

<sup>&</sup>lt;sup>7</sup> The attached appendix lists the eighty-one cases returned from the search that were reviewed.

<sup>&</sup>lt;sup>8</sup> The cases examined were determined by entering the date range 10/30/2008 to 08/31/2009 and entering "Bilski" in the "Search Document Text" field at http://des.uspto.gov/Foia/BPAIReadingRoom.jsp

<sup>&</sup>lt;sup>9</sup> There are three categories of decisions that can be issued by the BPAI: 1) Precedential opinions; 2) Informative opinions; and 3) Routine opinions.

<sup>&</sup>lt;sup>10</sup> Board of Patent Appeals and Interferences' Standard Operating Procedure 1 (Revision 13) dated February 12, 2009. Available at <a href="http://www.uspto.gov/web/offices/dcom/bpai/sop1.pdf">http://www.uspto.gov/web/offices/dcom/bpai/sop1.pdf</a>

<sup>&</sup>lt;sup>11</sup> "Board of Patent Appeals and Interferences Standard Operating Procedures 2 (Revision 7) Publication of Opinions and Binding Precedent," Available at <a href="http://www.uspto.gov/web/offices/dcom/bpai/sop2.pdf">http://www.uspto.gov/web/offices/dcom/bpai/sop2.pdf</a>. <sup>12</sup> Ex Parte Srinivas Gutta and Kaushal Kurapati, 2009 WL 2563524, (Bd.Pat.App. & Interf. Aug 10, 2009) (NO. APL 2008-4366, APP 10/014,192, TECHLOGY CENTER 2400); Ex Parte Robert Toth, 2009 WL 1719629, (Bd.Pat.App. & Interf. Jun 15, 2009) (NO. APL 2009-009323, APP 11/448,394, TECHLOGY CENTER 3700); and Ex Parte Robert Toth, 2009 WL 1719604, (Bd.Pat.App. & Interf. Jun 15, 2009) (NO. APL 2008-004543, APP 10/617,993, TECHLOGY CENTER 3700).

<sup>&</sup>lt;sup>13</sup> Available at <a href="http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25\_interim\_101\_instructions.pdf">http://www.uspto.gov/web/offices/pac/dapp/opla/2009-08-25\_interim\_101\_instructions.pdf</a>
<sup>14</sup> see, e.g., *Ex Parte Andreas Arning, Christoph Lingenfelder, Juergen Jaeger, and Oliver Schmidt,* 2009
WL 871123, (Bd.Pat.App. & Interf. Mar 30, 2009) (NO. APL 2008-3008, APP 10/044,782, TECHLOGY CENTER 2100), *Ex Parte John Delta and Donald Bosic*, 2009 WL 1702044, (Bd.Pat.App. & Interf. May 26, 2009) (NO. APL 2009-000982, APP 09/841,661, TECHLOGY CENTER 3600), *Ex Parte Wilhelmus Franciscus Johannes Verhaegh, and William Edward Peter Van Der Sterren*, 2009 WL 1719535, (Bd.Pat.App. & Interf. Jun 11, 2009) (NO. APL 2009-000128, APP 10/069,742, TECHLOGY CENTER

- 3600), and *Ex Parte James Haworth, Robert Finnegan, and Derek Mohar, 2009 WL 2342033*, (Bd.Pat.App. & Interf. Jul 30, 2009) (NO. APL 2009-000350, APP 09/795,120, TECHLOGY CENTER 3600).
- <sup>15</sup> Ex Parte Robinson Gaudino Caputo and Luiz Gustavo Varella Figueiredo, 2009 WL 1747508, (Bd.Pat.App. & Interf. Jun 18, 2009) (NO. APL 2008-004868, APP 10/463,482, TECHLOGY CENTER 2100).
- <sup>16</sup> Ex Parte Srinivas Gutta, 2009 WL 112393, (Bd.Pat.App. & Interf. Jan 15, 2009) (NO. APL 2008-3000, APP 10/014,202, TECHLOGY CENTER 3600).
- <sup>17</sup> Ex Parte Arthur E. Barnes, 2009 WL 164074, (Bd.Pat.App. & Interf. Jan 22, 2009) (NO. APL 2007-4114, APP 11/017,450, TECHLOGY CENTER 3600).
- <sup>18</sup> Bilski at 957 (citing Diehr, 450 U.S. at 191-92).
- <sup>19</sup> In re Paulsen, 30 F.3d 1475, 1479 (Fed. Cir. 1994).
- <sup>20</sup> Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999) (citations omitted).
- <sup>21</sup> *Id at* 1305-1306.
- <sup>22</sup> See, e.g., *Ex Parte Dennis K. Dang*, 2009 WL 1892586, (Bd.Pat.App. & Interf. Jun 29, 2009) (NO. APL 2009-000984, APP 10/106281, TECHLOGY CENTER 3600)
- <sup>23</sup> See, e.g., Ex Parte Daughtrey (2009 WL 963938, Bd.Pat.App. & Interf. Apr 08, 2009, NO. APL 2008-0202, APP 09/812,224, TECHLOGY CENTER 3600) where although the preamble recites that the user interface is "displayed on a monitor," the monitor is not a positively recited element of a claimed combination or even cited elsewhere in the claim. The Board found "[t]his recitation of a monitor in the preamble fails to breathe life or meaning into the claim. Rather, the recitation is simply a statement of intended use. As such, the recitation that the interface is 'displayed on a monitor' does not further limit the claimed 'user interface.'" Thus, the Board found the claims were not directed to statutory subject matter.
- <sup>24</sup> Ex Parte Nick M. Mitchell and Gary S. Sevitsky, 2009 WL 460662, (Bd.Pat.App. & Interf. Feb 23, 2009) (NO. APL 2008-2012, APP 10/673,848, TECHLOGY CENTER 2100).
- <sup>25</sup> Ex Parte Byron E. Dom, Joann Ruvolo, and Geetika Tewari, 2009 WL 1709112, (Bd.Pat.App. & Interf. May 29, 2009) (NO. APL 2008-002470, APP 10/323,568, TECHLOGY CENTER 2100)
- <sup>26</sup> Ex Parte R. Mark Halligan and Richard Weyand, 2009 WL 963939, (Bd.Pat.App. & Interf. Apr 08, 2009) (NO. APL 2008-2823, APP 09/757,940, TECHLOGY CENTER 3600)
- <sup>27</sup> Ex Parte Srinivas Gutta, 2009 WL 112393, (Bd.Pat.App. & Interf. Jan 15, 2009) (NO. APL 2008-3000, APP 10/014,202, TECHLOGY CENTER 3600).
- <sup>28</sup> Ex Parte Juergen Scholl and Dirk Rohdemann, 2009 WL 288204, (Bd.Pat.App. & Interf. Feb 04, 2009) (NO. APL 2008-2308, APP 10/261,163, TECHLOGY CENTER 2100).
- <sup>29</sup> Ex Parte Tetsuro Motoyama and Avery Fong, 2009 WL 524946, (Bd.Pat.App. & Interf. Feb 27, 2009) (NO. APL 2008-2753, APP 10/143,003, TECHLOGY CENTER 2100).
- <sup>30</sup> Ex Parte Corinne Le Buhan, Marco Sasselli, and Patrick Bertholet, 2009 WL 1007620, (Bd.Pat.App. & Interf. Apr 14, 2009) (NO. APL 2008-3441, APP 10/285,592, TECHLOGY CENTER 2100).
- <sup>31</sup> Ex Parte Wayne Lewis Dickerson, Jr., 2009 WL 2007184, (Bd.Pat.App. & Interf. Jul 09, 2009) (NO. APL 2009-001172, APP 09/940,974, TECHLOGY CENTER 3600).
- <sup>32</sup> Ex Parte Marius A. Cornea-Hasegan, 2009 WL 86725, 89 U.S.P.Q.2d 1557, (Bd.Pat.App. & Interf. Jan 13, 2009) (NO, APL 2008-4742, APP 10/328.572, TECHLOGY CENTER 2100)
- <sup>33</sup> Ex Parte John Snyder, 2009 WL 1346265, (Bd.Pat.App. & Interf. May 12, 2009) (NO. APL 2008-4598, APP 10/776,400, TECHLOGY CENTER 2100).
- <sup>34</sup> Ex Parte Gundrala D. Goud and Vincent J. Zimmer, 2009 WL 2203002, (Bd.Pat.App. & Interf. Jul 20, 2009) (NO. APL 2008-003121, APP 10/306,065, TECHLOGY CENTER 2100)
- <sup>35</sup> Ex Parte Robert F. Enenkel and Sigitas Keras, 2009 WL 924475, (Bd.Pat.App. & Interf. Apr 06, 2009) (NO. APL 2008-2239, APP 10/008,473, TECHLOGY CENTER 2100)
- <sup>36</sup> Ex Parte Rodney Daughtrey, 2009 WL 963938, (Bd.Pat.App. & Interf. Apr 08, 2009) (NO. APL 2008-0202, APP 09/812,224, TECHLOGY CENTER 3600)
- <sup>37</sup> Ex Parte Nick M. Mitchell and Gary S. Sevitsky, 2009 WL 460662, (Bd.Pat.App. & Interf. Feb 23, 2009) (NO. APL 2008-2012, APP 10/673,848, TECHLOGY CENTER 2100).
- <sup>38</sup> Ex Parte Rodney Daughtrey, 2009 WL 963938, (Bd.Pat.App. & Interf. Apr 08, 2009) (NO. APL 2008-0202, APP 09/812,224, TECHLOGY CENTER 3600).

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- <sup>39</sup> Ex Parte Erik Richter Altman, Ravi Nair, John Kevin OBrien, Kathryn Mary OBrien, Peter Howland Oden, Daniel Arthur Prener, and Sumedh Wasudeo Sathaye, 2009 WL 1709111, (Bd.Pat.App. & Interf. May 29, 2009) (NO. APL 2008-2386, APP 10/244,559, TECHLOGY CENTER 2100).
- <sup>40</sup> Ex Parte Fabio Casati, Ming-Chien Shan, and Umeshwar Dayal, 2009 WL 2342080, (Bd.Pat.App. & Interf. Jul 31, 2009) (NO. APL 2009-005786, APP 10/164,175, TECHLOGY CENTER 3600).
- <sup>41</sup> Ex Parte Andreas Myka and Christian Lindholm, 2009 WL 1354204, (Bd.Pat.App. & Interf. May 13, 2009) (NO. APL 2008-3874, APP 10/749,652, TECHLOGY CENTER 2100).
- <sup>42</sup> Ex Parte Howard Borenstein, Victor S. Chan, Robert M.H. Dunn, Aalim Lakhani, Lev Mirlas, and Tony C.K. Woo, 2009 WL 871128, (Bd.Pat.App. & Interf. Mar 30, 2009) (NO. APL 2008-3475, APP 10/785,839, TECHLOGY CENTER 3600).
- <sup>43</sup> Ex Parte John C. Hardwick, 2009 WL 1796055, (Bd.Pat.App. & Interf. Jun 22, 2009) (NO. APL 2009-002399, APP 10/046,666, TECHLOGY CENTER 2600).
- <sup>44</sup> Ex Parte Sandeep Nawathe and Vaishali Angal, 2009 WL 327520, (Bd.Pat.App. & Interf. Feb 09, 2009) (NO. APL 2007-3360, APP 10/112,147, TECHLOGY CENTER 2100).
- <sup>45</sup> Ex Parte Paul Thomas Schultz, 2009 WL 803097, (Bd.Pat.App. & Interf. Mar 25, 2009) (NO. APL 2009-1044, APP 11/127,978, TECHLOGY CENTER 2600)
- <sup>46</sup> Ex Parte Cyrus Shahabi and Rolfe Schmidt, 2009 WL 1067191, (Bd.Pat.App. & Interf. Apr 20, 2009) (NO. APL 2008-2472, APP 10/310,667, TECHLOGY CENTER 2100).
- <sup>47</sup> Ex Parte Erik Richter Altman, Ravi Nair, John Kevin OBrien, Kathryn Mary OBrien, Peter Howland Oden, Daniel Arthur Prener, and Sumedh Wasudeo Sathaye, 2009 WL 1709111, (Bd.Pat.App. & Interf. May 29, 2009) (NO. APL 2008-2386, APP 10/244,559, TECHLOGY CENTER 2100).
- <sup>48</sup> Ex Parte Gopal B. Avinash, Kadri Nizar Jabri, John M. Sabol, Renuka Uppaluri, and Vianney Pierre Battle, 2009 WL 1714570, (Bd.Pat.App. & Interf. Jun 02, 2009) (NO. APL 2009-1542, APP 10/250,222, TECHLOGY CENTER 2600).
- <sup>49</sup> Ex Parte Scott C. Harris, 2009 WL 86719, (Bd.Pat.App. & Interf. Jan 13, 2009) (NO. APL 2007-0325, APP 09/780,248, TECHLOGY CENTER 3600).
- <sup>50</sup> see, e.g., Ex Parte Sanjay John Cherian and Suresh K. Damodaran-Kamal, 2009 WL 1956247, (Bd.Pat.App. & Interf. Jul 06, 2009) (NO. APL 2008-004157, APP 10/174,520, TECHLOGY CENTER 2400) and Ex Parte Steven Edward Atkin, 2009 WL 247868, (Bd.Pat.App. & Interf. Jan 30, 2009) (NO. APL 2008-4352, APP 09/891,341, TECHLOGY CENTER 2600).
- <sup>51</sup> Ex Parte Daniela Giacchetti, 2009 WL 641188, (Bd.Pat.App. & Interf. Mar 11, 2009) (NO. APL 2008-2866, APP 10/024,482, TECHLOGY CENTER 3600).
- <sup>52</sup> Ex Parte Howard Borenstein, Victor S. Chan, Robert M.H. Dunn, Aalim Lakhani, Lev Mirlas, and Tony C.K. Woo, 2009 WL 871128, (Bd.Pat.App. & Interf. Mar 30, 2009) (NO. APL 2008-3475, APP 10/785,839, TECHLOGY CENTER 3600).
- <sup>53</sup> Ex Parte Marius A. Cornea-Hasegan, 2009 WL 86725, \*2+, 89 U.S.P.Q.2d 1557, (Bd.Pat.App. & Interf. Jan 13, 2009) (NO. APL 2008-4742, APP 10/328,572, TECHLOGY CENTER 2100).
- <sup>54</sup> Ex Parte Nick M. Mitchell and Gary S. Sevitsky, 2009 WL 460662, (Bd.Pat.App. & Interf. Feb 23, 2009) (NO. APL 2008-2012, APP 10/673,848, TECHLOGY CENTER 2100).
- <sup>55</sup> Ex Parte Scott Alan Isaacson, Stephen R. Carter, and Frank Allan Nutt, 2009 WL 505455, (Bd.Pat.App. & Interf. Feb 26, 2009) (NO. APL 2008-1884, APP 10/430,542, TECHLOGY CENTER 2100).
- <sup>56</sup> Ex Parte John H. Zybura, Max L. Benson, Herman Man, Edward H. Wayt, Felix W. Wong, and Jing Wu, 2009 WL 282081, (Bd.Pat.App. & Interf. Feb 03, 2009) (NO. APL 2008-2195, APP 10/669,866, TECHLOGY CENTER 2100).
- <sup>57</sup> Ex Parte Rodney Daughtrey, 2009 WL 963938, (Bd.Pat.App. & Interf. Apr 08, 2009) (NO. APL 2008-0202, APP 09/812,224, TECHLOGY CENTER 3600).
- <sup>58</sup> In re Nuijten, 500 F.3d 1346 (Fed. Cir. 2007).
- <sup>59</sup> Ex Parte Stanley Bruce Holmstead and Jody L. Terrill, 2009 WL 1683192, (Bd.Pat.App. & Interf. May 20, 2009) (NO. APL 2009-1485, APP 10/211,915, TECHLOGY CENTER 2600).
- <sup>60</sup> *Bilski* at 962.
- <sup>61</sup> Bilski at 962-63.
- <sup>62</sup> Ex Parte John C. Hardwick, 2009 WL 1796055, (Bd.Pat.App. & Interf. Jun 22, 2009) (NO. APL 2009-002399, APP 10/046,666, TECHLOGY CENTER 2600).

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<sup>&</sup>lt;sup>63</sup> Ex Parte Wilhelmus Franciscus Johannes Verhaegh, and William Edward Peter Van Der Sterren, 2009 WL 1719535, (Bd.Pat.App. & Interf. Jun 11, 2009) (NO. APL 2009-000128, APP 10/069,742, TECHLOGY CENTER 3600).

<sup>&</sup>lt;sup>64</sup> Ex Parte Robinson Gaudino Caputo and Luiz Gustavo Varella Figueiredo, 2009 WL 1747508, (Bd.Pat.App. & Interf. Jun 18, 2009) (NO. APL 2008-004868, APP 10/463,482, TECHLOGY CENTER 2100)