

Keywords: 35 U.S.C. § 101; nonstatutory subject matter; 35 U.S.C. § 112; tangible; practical application; real world; all fields; only one field

General: The B.P.A.I. finds that claims directed to a system (reciting a memory and a processor configured to perform certain steps) and an article of manufacture (reciting a computer readable medium having computer readable program code embodied thereon) are not directed to patentable subject matter because the claims are not limited to a tangible practical application and are not limited so as to avoid encompassing substantially all practical applications of an algorithm.

Ex parte Gutta

93 U.S.P.Q.2d 1025 (B.P.A.I. 2009) (precedential)

Decided August 10, 2009

I. Facts

Appellants invented a method, system, and article of manufacture for identifying a mean item from a group of items. The method and system function to separate the items into clusters, compute the variance of the clusters, and select a mean item. The article of manufacture includes code embodied on a computer readable medium that also performs these steps. Accordingly, Appellants filed a patent application with claims directed to a method, system, and article of manufacture (the representative claims are claims 1, 14, 19, and 20). However, the Examiner rejected these claims for various reasons, including a rejection under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Appellants appealed from the Examiner's rejections to the Board of Patent Appeals and Interferences.

II. Issues

- A. Did Appellants show that the Examiner erred in finding the method recited in claim 1 is not patentable under 35 U.S.C. § 101?
- B. Should claim 14 be found nonstatutory under 35 U.S.C. § 101?
- C. Should claim 19 be found nonstatutory under 35 U.S.C. § 101?
- D. Should claim 20 be rejected under 35 U.S.C. § 112, second paragraph?

III. Discussion

- A. No. Claim 1 recites a method for identifying a mean item from a group of items and is not directed to a machine, manufacture, or composition of matter as set forth in 35 U.S.C. § 101. Accordingly, claim 1 should be analyzed on whether the claim recites a patent-eligible process. A process claim satisfies 35 U.S.C. § 101 if it (1) is tied to a particular machine, or (2) transforms an article into a different state or thing (the machine-or-transformation test of *Bilski*).

With regard to the first prong of the machine-or-transformation test, claim 1 is not limited to any machine—let alone a particular machine. Indeed, claim 1 recites performing a computation without tying these steps to any concrete parts, devices, or combinations of devices. In fact, computation such as that recited in claim 1 could be performed in one's mind. Thus, the first prong is not met.

With regard to the second prong of the machine-or-transformation test, as set forth above, claim 1 is directed to a method for identifying a mean item from a group of items. The claimed items are not limited to either a particular item or a physical item. Rather, each item has a symbolic value of

a symbolic attribute. Indeed, in summary, claim 1 is directed to abstract ideas defined by the items' symbolic values. Thus, claim 1 does not recite an article to transform. That is, the steps of claim 1 broadly recite a non-transformative process that fails to recite an article. Further, the claimed method is not both (a) limited to a practical application of a fundamental principle to transform specific data, and (b) limited to a visual depiction that represents specific physical objects or substances.

- B. Yes. While claim 14 is directed to the “machine” category in 35 U.S.C. § 101, this does not end the patent-eligibility analysis. If a claimed machine (or article of manufacture) involves a mathematical algorithm, it must be determined whether the scope of the claimed invention encompasses one of the judicially-created exceptions. The following two inquiries must be made:
- (1) Is the claim limited to a tangible practical application, in which the mathematical algorithm is applied, that results in a real world use (e.g., not a mere field-of-use label having no significance)?
 - (2) Is the claim limited so as to not encompass substantially all practical applications of the mathematical algorithm either in all fields of use of the algorithm or even in only one field?

With regard to the first inquiry, other than claim 14's recital of a memory and a processor for computing a mathematical algorithm, claim 14 fails to recite any tangible practical application in which the mathematical algorithm is applied that result in a real world use. For example, the system of claim 14 is not like the claimed invention of *Diehr*, which was directed to a physical and chemical process for curing synthetic rubber, and which was found to be statutory subject matter under 35 U.S.C. § 101. Rather, the claimed “identifying one or more mean items” of claim 14 is more akin to claims of *Flook* which were found to cover a broad range of potential uses.

With regard to the second inquiry, claim 14 introduces structure by reciting a memory and a processor. However, other than providing examples of a memory (e.g., RAM and ROM) and a processor (e.g., a CPU for a computer), the Specification provides no more detail. Further, the claims are not even limited to the provided examples of the memory and the processor. The Specification indicates that the processor is configured to perform certain computations, which involve the use of a mathematical formula and an abstract idea. Thus, claim 14 forecloses others from using substantially all practical applications of the algorithm in substantially all fields of use. Furthermore, the “configured to” limitations of the processor in claim 14 are not tied to the system's memory and, in effect, merely recite the processor's ability to compute a variance and select a mean item (abstract ideas). Thus, by substantially encompassing all practical applications of the mathematical algorithm, the breadth of the claim wholly preempts the disclosed mathematical formula and essentially claims the algorithm itself.

- C. Yes. Claim 19 recites an article of manufacture for identifying a mean item of plural items, which includes computer-readable code embodied on a computer-readable medium. The Specification indicates that the computer-readable code is stored on computer-readable medium, such as RAM or ROM. As RAM and ROM are hardware, claim 19 comports with the definition of a machine. Nevertheless, this does not establish claim 19 as statutory. Indeed, the two separate independent inquiries discussed above regarding claim 14 must also be made for claim 19. Because the steps recited in claim 19 are identical to the functions found in claim 14, claim 19 also fails to recite the application of a mathematical algorithm to a tangible practical application that results in a real world use. Further, using the same rationale applied to claim 14, claim 19 encompasses substantially all practical applications of the mathematical algorithm (e.g., computer applications) in substantially all fields of use.
- D. Yes. Claim 20 recites a system with two means: (1) a means for computing a variance, and (2) a means for selecting an item. The corresponding structure for the means for computing involves a

processor and a memory, which are tantamount to a general purpose computer. This general purpose computer performs a routine or algorithm for computing variance, which includes selecting the item.

“[T]he application must disclose ‘enough of an algorithm to provide the necessary structure under 35 U.S.C. § 112, paragraph 6’ or a disclosure that can be expressed in any understandable terms (e.g., a mathematical formula, in prose, or as a flow chart).” The structure described in the Specification that corresponds to the means-plus-function limitations in claim 20 is nothing more than a general-purpose computer that computes a variance and selects an item that minimizes the variance. Thus, the Specification does not meet the requirements of 35 U.S.C. § 112, paragraph 6. Further, while the Specification describes a formula for calculating a variance of symbolic values, there are few details of the algorithm or process for selecting the item that minimizes the variance. Because the metes and bounds of claim 20 cannot be determined due to these defects, the claim is indefinite.