

Commissioner's Decision

Subject Matter, S.2 Correspondence Storage and Retrieval System

the system of abstracting, archiving, and retrieving documents relates to more than mere calculations, and in the absence of pertinent art, the application is directed to patentable subject matter.

Rejection withdrawn.

This decision deals with the Applicant's request for review by the Commissioner of Patents of the Final Action on application 363,345 (Class 354-120) filed October 27, 1980. It is assigned to International Business Machines Corporation and is entitled OFFICE CORRESPONDENCE STORAGE AND RETRIEVAL SYSTEM. The inventors are D. Glickman, J.T. Repass, W.S. Rosenbaum, and J.G. Russell. The Examiner in charge issued a Final Action on February 10, 1983 refusing to allow the application.

The application relates to a system for abstracting and archiving documents, and for retrieving them in response to text enquiries, and is shown in figure 1 reproduced below:

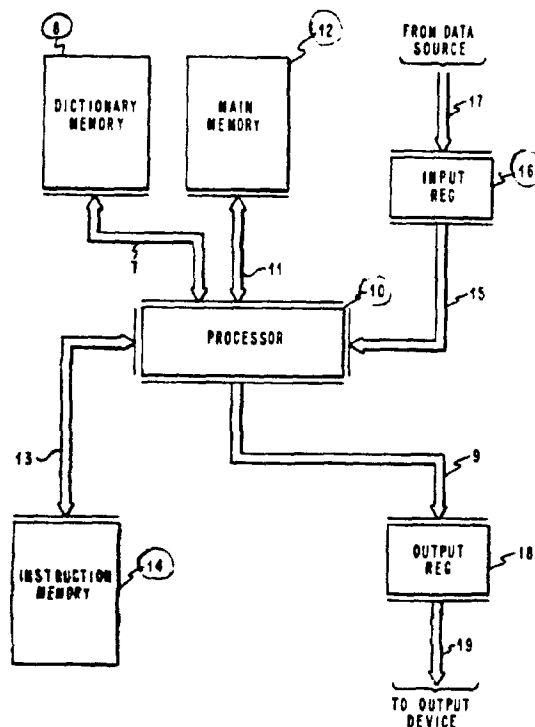


FIG. 1

In the abstracting/archiving mode, the document text to be stored is received at input register 16, and by directions received from instruction memory 14 (in two way communication with processor 10) its text passes to processor 10 for abstraction. Both dictionary memory 8 and main memory 12 are in two way communication with processor 10. Memory 8 contains nouns and single purpose adjectives, but no numerics, acronyms, or proper names. The words in the document are compared to those in memory 8, and those found therein are coded differently from those not in the memory. After coding they are accumulated to make up the abstract and are stored in a key word index file in memory 12. Any term in the index file is coded to show its nature (noun, numeric, etc.) and how many times it occurs in the document, and is given a weighting factor. The completed abstract is transmitted to the index file for storage.

For retrieval, a query text is placed at register 16 and the text passes to processor 10. The processor connects with memories 8 and 12 to get a document text retrieval affinity evaluation. Any document text selected is transmitted to the output register 18 for retrieval.

In rejecting the application in view of Section 2 of the Patent Act for not being directed to statutory subject matter, the Examiner says, in part, as follows:

On page 2 paragraph 2 of the letter of December 8, 1982 applicant states that the invention is a method which could be carried into practical effect by hardware, programs, etc. However, this is not disclosed. Only programs are disclosed, and on page 21 the only alternatives suggested to the disclosure programs are further programs "implemented in other computer languages". Thus the disclosure does not teach that the spirit of the invention can be implemented by hardware. Hardware has not been disclosed in accordance with Section 36(1) of the Patent Act and page 21 of the disclosure does not indicate that a hardware embodiment would be practical or could be devised without the exercise of inventive ingenuity.

On page 2 paragraph 3 of the letter applicant states that the phrase the "invention comprises a set of instructions or programs" has been taken out of context. The context of the phrase as found on page 6 is: "The preferred embodiment of the present invention comprises a set of instructions or programs for controlling the document abstracting...". In the following paragraph the applicant emphasises that the

instructions are part of a preferred embodiment. It is noted that instructions and programs are the only tools which have been disclosed to carry out the invention. However, it is not agreed that applicant has disclosed an alternative method using hardware.

Applicant states that the claims of record can in no way be regarded as claiming a program. Applicant is requested to apply the infringement test to the claims. How would it be possible for the public to use the programs disclosed without infringing the claims? What practical and useful method are the claims designed to claim a monopoly to if not the method comprising the program disclosed or similar programs in "other computer languages" as stated on page 21.

...applications are not rejected out of hand because they include formulas or mention the law of gravity etc. They would only be rejected if they disclosed nothing but a formula or scientific law. They are not rejected if they also include inventive subject matter. In the case of applications disclosing programs it is required that the programs be carried out on novel apparatus or that the programs only be a part of an otherwise statutory claimed method. (See the Commissioner's Decision referred to in the report of September 24, 1982.)

In response to the Final Action, the Applicant draws attention to the description of the invention on pages 2, 3 and 4, and reasons as follows, in part:

. . .

Initially, as a practical and incontrovertible fact, the present invention does constitute an improvement over earlier methods of handling documentation, affording a system through which improved results can be achieved without the direct involvement of high-level, or highly informed personnel, and with a substantial reduction in extremely expensive computer time.

Secondly, it is very difficult to read the above summary of invention and, with any justification, state that it merely defines an algorithm or computer program, or any other such endeavour in the "fine" arts. So far, there is nothing to indicate that the Applicant's disclosure does not comply with the definition of invention in Section 2 of the Act, wherein it is stated that:

"invention means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter;"

In addition to the foregoing, the Examiner has decided that Section 36(1) of the Patent Act requires

the disclosure of hardware, and since a software embodiment alone is disclosed, no statutory invention could possibly have been disclosed.

With all due respect, such an assertion is deemed to be baseless and completely devoid of even prima facie justification, let alone any authoritative support.

. . .

...not only is there no specific requirement for hardware under S.36(1), one can turn to well established law to see that new or modified hardware is in no way essential for a showing of invention in a new process.

For example, in Elton & Leda Chemical Ltd.'s Application, (1957) R.P.C. 267, Lloyd-Jacobs J. stated:

"It has thus been appreciated that, although an inventor may use no newly devised mechanism, nor produce a new substance, none the less he may, by providing some new and useful effect, appropriate for himself a patent monopoly in such improved result by covering the mode or manner by means of which his result is secured."

The Applicant herein complies precisely with the law in claiming the mode (method of procedure) by means of which the new and advantageous effect or result is achieved in the field of document handling. The fact that old or well-known apparatus may be employed has nothing whatsoever to do with the invention actually claimed.

. . .

In the Applicant's disclosure, the routines and sub-routines forming part of the computer program embodiment are set out in various Tables. Table 1, for example sets out a Document Abstraction Routine.

It takes little, if any investigation to realize that the claim language is vastly different from the Tables, and that such claims do not, in any way, claim a computer program. The claims define "a sequence of steps", as called for in Section 36(1), such sequence being invented prior to the determination of whether hardware or software would be used to carry the sequence into practical effect.

The Examiner continues to assert that the claims are directed to a computer program and suggests the application of the infringement test, asking how the public could use the disclosed programs without infringing the claims. This at least intimates that the Examiner acknowledges some degree of difference between the routines and the claims.

The Examiner apparently refuses to look at the consequences of disallowing otherwise acceptable claims merely because one can and does propose to use software to carry out the claimed invention.

If the Applicant had provided a few flow charts and a block schematic diagram for a logic circuit (saying nothing about software), it is presumed that the

application would have been allowed, and, ostensibly, the Applicant would have been granted a monopoly on the procedural steps set out in the method claims.

Let us now apply the Examiner's infringement test in the following scenario:

A member of the public reads those flow charts and, without the need for any inventive ingenuity, develops an equivalent software program.

The approach adopted by the Examiner implicitly dictates that the use of the program by that member of the public could not constitute an infringement since no-one can patent or pre-empt a computer program. (If such use is considered to be an infringement, then the patentee has pre-empted the program in any event.)

Briefly, the Examiner would have the Government, through the Commissioner of Patents, appear to violate the exclusivity which it promises in its patent legislation. Any method capable of being put into use through computer software could, under the Examiner's concepts, be acquired and used without liability. Such a policy can scarcely be viewed as conducive to inventors to make available their discoveries to the public; and this, of course, is precisely the purpose for which the patent system was proposed and instituted.

. . .

Now let us again apply the Examiner's infringement question. "How could the public avail itself of the disclosed use of the natural principle without infringing the claims."

The answer, of course, is that the public would have no right, as is clearly directed by the courts. The inventor, in return for his disclosure, is given a limited monopoly.

. . .

It is respectfully submitted that acceptance of the tenets espoused in the Diamond v. Diehr decision in the U.S.A., which are in accord with the general approach to non-statutory subject matter in our own case law, would lead to a sound, practical and legally acceptable procedure.

The issue before the Board is whether or not the subject matter of the application is patentable in view of Section 2 of the Patent Act. Claim 1 reads:

A method for abstracting, archiving and retrieving a document in machine readable form comprising the steps of:

(a) establishing a dictionary memory of preselected first specialization terms;

- (b) comparing the text of said document with the terms in said dictionary memory;
  - (c) combining first specialization terms corresponding to terms in said text with second specialization terms, not entered in said dictionary memory, to form an abstract of said document;
  - (d) storing each word of the said abstract in a word index file;
- retrieval of said documents being accomplished by:
- (e) comparing retrieval query words with said word index file and selecting those documents having abstracts containing said query words.

In assessing the kind of subject matter presented by Applicant, we are guided by the decision in Schlumberger Canada Ltd. v. The Commissioner of Patents (1981) 56 C.P.R. (2d) at 204, and the following passages of Pratte, J.:

In order to determine whether the application discloses a patentable invention, it is first necessary to determine what, according to the application, has been discovered.

and

I am of the opinion that the fact a computer is or should be used to implement discovery does not change the nature of that discovery. What the appellant claims as an invention here is merely the discovery that by making certain calculations according to certain formulae, useful information could be extracted from certain measurements. This is not, in my view, an invention within the meaning of Section 2.

It is evident to us that the Applicant's system provides an arrangement of components that permits the storage and retrieval of documents. In our view, the system provides a useful end result in the field of document handling, and is directed to more than merely performing certain calculations in order to extract information. We see that a combination of components has been employed, including hardware and software elements, to carry out the various steps in transferring the text of documents to a storage area, and in retrieving texts in response to enquiries and making the texts available. We find that the Applicant sufficiently sets forth a system for document handling that is understandable to a person skilled in the art, and that his application complies with Section 36(1) of the Patent Act. Moreover, we are satisfied in view of Schlumberger, supra, that the application presents patentable subject matter under Section 2 of the Act.


We see that the claims relate the steps to provide for abstracting, archiving, and retrieving document texts. In our opinion, they are directed to the invention described in the application.

We find therefore that the application discloses and claims a system for document storage and retrieval that pertains to more than merely performing calculation steps to derive particular measurements. In the absence of any cited art, we are satisfied the application is directed to patentable subject matter and may be allowable.

We recommend the withdrawal of the rejection of the application for being directed to non-statutory subject matter.

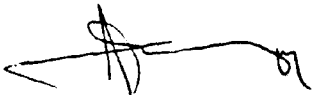


M.G. Brown  
Acting Chairman  
Patent Appeal Board



S.D. Kot  
Member

I have reviewed the prosecution of the application. I concur with the findings and recommendation of the Patent Appeal Board. Accordingly I withdraw the Final Action, and I am remanding the application to the Examiner for prosecution consistent with the recommendation.



J.H.A. Gariépy  
Commissioner of Patents

Dated at Hull, Quebec  
this 29 day of June 1987

Alexander Kerr  
IBM Canada Limited  
Department 24/908  
3500 Steeles Avenue East  
Markham, Ontario  
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