

## **PATENTS ACT 1977**

### **IN THE MATTER OF**

Application No. GB 9713345.8

in the name of Donald C Hutchins

### **DECISION**

#### **Introduction**

1. Patent application number GB 9713345.8 entitled, "CPR Computer Aiding", was filed on 24 June 1997 in the name of Donald C Hutchins. The application claims priority from a US application that was first filed on 24 June 1996.
2. Before conducting a search, the examiner wrote to the applicant advising him that the invention appeared to be unpatentable since it related to nothing more than a program for a computer and/or the presentation of information. At this point, the applicant was given the opportunity to withdraw the application (and receive a refund of the search fee), file revised claims or submit observations. The applicant replied, indicating that he would not be pursuing certain claims, in particular a series of claims directed to a computer readable medium. However, the applicant also submitted observations, arguing that the remaining claims were "at least arguably capable of being patentable". On this basis the examiner conducted a search, and a search report was issued on 30 September 1997.
3. The application was published on 7 January 1998 as GB 2314648.
4. A first examination report under section 18(3) was issued on 27 January 2000, and in it the examiner reported, among other things, that the claims related to the presentation of information and/or a program for a computer as such, and that consequently the application was excluded from patentability by section 1(2).
5. The examiner also relied upon several documents that were cited on the search report to show that the invention as defined in many of the claims lacked novelty.
6. The applicant responded to the first examination report, but the examiner maintained many of the original objections. The official file shows that there were several further rounds of correspondence between the examiner and the agent representing the applicant. With one exception, all of the examiner's objections were overcome. However, the examiner maintained that the claims (as amended) relate to a program for a computer as such. The examiner and the applicant's agent then concluded that further correspondence was unlikely to resolve the matter of patentability, and the applicant duly requested a hearing. That hearing took place on 26 February 2001. At the hearing, the applicant was represented by Mr Steven Howe of Lloyd Wise, Tregear & Co.

#### **The Application**

7. The application concerns a computer system for providing guidance to rescue personnel providing Cardio Pulmonary Resuscitation (CPR) to a patient. The system provides visual and audible (eg synthesised speech) information to the rescue personnel in response to inputs

received from them regarding the condition of the patient. As originally filed, claims 1 to 13 claimed the basic system, claims 13 to 20 a networked variant, claims 21 to 30 a program on a carrier which runs the system, claims 31 to 38 the program itself, and claims 39 to 43 the corresponding method.

8. On 29 December 2000, the applicant submitted amended claims 1 to 21. The new claim 1 corresponded broadly with original claim 13; claims 2 to 20 being dependent claims and claim 21 an omnibus-type claim. Restricting the scope of the claims to a networked computer system for providing CPR guidance overcame the novelty objections raised in the first examination report.

9. The new claim 1, as considered at the hearing, reads as follows:

1. A general purpose computer network system adapted to provide guidance to rescue personnel trained in cardiopulmonary resuscitation (CPR) for resuscitating victims under emergency conditions, the computer network comprising a plurality of peripheral units, a network server and a communication link between the peripheral units and the network server, in which:
  - each of the peripheral units includes an input comprising a display arranged to display image or text representative of characteristics of a victim relevant to proper performance of CPR techniques, means for selecting characteristics represented by said display image or text that correspond to the characteristics of said victim, and means for generating information signals corresponding to the characteristics selected;
  - the communication link communicates the information signals from the peripheral units to the network server;
  - the network server includes a processor, the processor being responsive to said information signals to determine the proper steps to be taken in resuscitating said victim to generate output signals representative of proper steps to be taken in resuscitating said victim;
  - the communications link communicates the output signals from the network server to the peripheral units; and,
  - the peripheral unit including an output including a display and an electroacoustical transducer to provide guidance signals in response to said output signals, said guidance signals including visible signals and audible speech signals representative of the proper steps to be taken by said rescue personnel in resuscitating said victim.

(Dependent claims 2 to 20, and the omnibus-type claim 21 were not expressly considered during the hearing. It was understood that they would stand or fall with claim 1.)

### **Program for a computer**

10. The examiner has objected that the claims of the present application relate to a program for a computer as such. This objection is based on section 1(2)(c) of the Act, the essential parts of which read:

1(2) It is hereby declared that the following (among other things) are not inventions for the purposes of this Act, that is to say, anything which consists of -

- (a) ...
- (b) ...

(c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;

(d) ...

but the foregoing provision shall prevent anything from being treated as an invention for the purposes of this Act only to the extent that a patent or application for a patent relates to that thing as such.

11. This particular section of the Act corresponds to articles 52(2) & (3) of the European Patent Convention (EPC). As section 130(7) of the Act confirms, these respective provisions are so framed as to have, as nearly as practicable, the same effect. It is also well established<sup>1</sup> that whilst I am bound by the decisions of courts in the United Kingdom, I must have regard to the decisions of the European Boards of Appeal, at least insofar as they relate to these particular articles of the Convention.

12. The invention as claimed is defined as a “general purpose computer network system”, adapted to provide CPR guidance. It is also clear from the specification as a whole, that the invention uses a conventional computer network. The ‘adaptation’ of the computer network is achieved by loading and executing a particular computer program specifically written for the application. This was confirmed before the hearing in a letter from the applicant’s agent dated 15 November 2000, which says:

“... by using available computer network systems, the present invention achieves the desired availability of the information to rescue personnel, without requiring them to carry portable, personal, units.”

“In particular, there is no additional hardware requirement where the system is implemented on an existing computer network.”

13. It was agreed at the hearing that the relevant part of the Act (ie. section 1(2)) should be interpreted as stated by the Court of Appeal in *Merrill Lynch's Application* [1989] RPC at page 569 where Lord Justice Fox says:-

“On the other hand, it seems to me to be clear, for the reasons indicated by Dillon L.J., that it cannot be permissible to patent an item excluded by section 1(2) under the guise of an article which contains that item - that is to say, in the case of a computer program, the patenting of a conventional computer containing that program. Something further is necessary. The nature of that addition is, I think, to be found in the *Vicom* case where it is stated: "Decisive is what technical contribution the invention makes to the known art". There must, I think, be some technical advance on the prior art in the form of a new result (eg., a substantial increase in processing speed as in *Vicom*).”

14. Thus for a conventional computer system executing a novel program to be patentable there must be a ‘*technical advance on the prior art in the form of a new result*’.

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<sup>1</sup>*Gale's Application* [1991] RPC 305, *Merrell Dow Pharmaceuticals v H.N. Norton* [1996] RPC 76, *Bristol Myers Squibb v Baker Norton Pharmaceuticals* [1999] RPC 253

15. Mr Howe also agreed that the invention involved a computer program, but he went to say (and rightly so), that that was not the end of the matter. In Mr Howe's submission, the invention was more than just a computer program **as such**. In particular, Mr Howe argued that the present invention, although implemented using a computer program, provided the necessary technical advance on the prior art.
16. The relevant prior art, as Mr Howe explained at the hearing, includes portable electronic units for aiding CPR. Some of these units, though portable, can be quite bulky to carry around; others are much smaller and can, for example, be worn on the wrist. One of the disadvantages of these prior art systems is that they rely on the rescuer carrying the unit around with them all of the time. Another disadvantage is that such a unit is only likely to be carried by someone who has been specially trained in its use, which reduces the probability of a unit being on hand in the event of an emergency. Alternately, if a number of these portable units were to be located at certain positions in an office building, eg. first aid stations or "rest rooms", there is a risk that they might be lost, or that the batteries might not be sufficiently charged, when they are needed. As Mr Howe observed, these risks are increased because, fortunately, emergencies requiring CPR occur relatively infrequently.
17. According to Mr Howe, the technical contribution of the present invention is the way in which it overcomes these problems. Strictly speaking, the present invention is said to have a number of advantages over the prior art which all contribute to the technical effect that Mr Howe relied upon.
18. First of all, the invention uses existing networked computer systems, such as are often to be found distributed around schools and offices. Not only does this significantly reduce the cost of implementing a CPR guidance system, but it eliminates for all practical purposes the risk of not being able to find the equipment when it is needed.
19. Secondly, using an existing computer network system will generally mean that there is more processing power available than would normally be found in the much smaller, portable devices of the prior art. Moreover, by implementing the CPR guidance system on a computer network, it is relatively easy to upgrade the system centrally without having to recall a large number of portable units for individual upgrades.
20. In particular, Mr Howe argued that the invention lay in the appreciation that, rather than using individual, stand-alone, portable aids as shown in the prior art, there would be great benefit in providing an increased number of computer terminals where inputs could be made and outputs presented, but in which there was a single means provided for processing the inputs and generating the outputs. Mr Howe maintained that this concept could not be described as a computer program as such, but instead that it is a physical arrangement, distinguished from the prior art, that gives an unexpected and real advantage over the prior art systems.
21. I have carefully considered all of the advantages that Mr Howe emphasized, and whilst I have no doubt that they can fairly be described as advantages of the applicant's system, I am not persuaded that they amount to a *technical* advance, whether considered individually or collectively. More specifically it seems to me that all of the "technical contributions" that Mr Howe identified would be generally recognised as conventional reasons for using any computer program on a network of computers. I have also read through the specification as a whole, but I have been unable to find anything that I would regard as a technical advance on the prior art.

22. During the hearing I referred to a decision of EPO Technical Board of Appeal 3.5.1 in relation to an application by *Pension Benefit Systems Partnership (T 931/95)*. This was a fairly recent decision which had not been mentioned in the correspondence leading up to the hearing, but it seemed to me that it was potentially quite relevant to the present case. In order to give Mr Howe an opportunity to consider the decision, I adjourned the hearing for a short period, and later agreed to delay my decision for a couple of weeks to enable Mr Howe to make further submissions, perhaps in writing, if he should so wish. Mr Howe did make some further submissions in writing on 5 March 2001, and I have taken those submissions into account while preparing my decision in this matter.
23. In the *Pension Benefit Systems* case, the objection raised by the European Patent Office was that the claims of the application related to a method of doing business, one of the categories excluded from patentability by article 52 of the EPC. In reaching its decision, the Board of Appeal considered that there is an implicit requirement for a technical character before a patent can be granted.
24. At page 16, the Board of Appeal quoted a passage from the Guidelines for examination in the EPO where the application of the so-called “contribution approach” is explained as follows:

“the examiner should disregard the form or kind of claim and concentrate on its content in order to identify the real contribution which the subject-matter claimed, considered as a whole, adds to the known art. If this contribution is not of a technical character, there is no invention within the meaning of Article 52(1).”
25. In the Board’s view, this “contributions approach” confused the requirement of ‘invention’ with the requirements of ‘novelty’ and ‘inventive step’, and consequently the Board agreed with the appellant that the contribution approach was not appropriate for deciding whether something is an invention for the purposes of article 52(1) of the EPC.
26. It is perhaps worth pointing out that there were a number of auxiliary requests in *Pension Benefit Systems (T931/95)*, and that although the main request (which concerned the actual **method** of calculation itself) was rejected under article 52, the first auxiliary request (which concerned the **apparatus** for performing the calculations) was not rejected under article 52. (The computer apparatus of the first auxiliary request was also rejected, but separately under article 56 on the grounds of obviousness; which is not an objection that has been raised against the present claims of this application.)
27. Mr Howe drew my attention to the second paragraph on page 13 of *Pension Benefit Systems (T931/95)*, which reads:

“In the Board’s view a computer system suitably programmed for use in a particular field, even if that is the field of business and economy, has the character of a concrete apparatus in the sense of a physical entity, man-made for a utilitarian purpose and is thus an invention within the meaning of Article 52(1) EPC.”
28. Consequently, whilst the method claims in the *Pension Benefit Systems* case were found by the EPO Board of Appeal to be unpatentable, the Board considered that a claim to apparatus (eg. a suitably programmed computer) for carrying out a pension benefits system was not excluded as a *method* of doing business. The Board held that as these claims were directed to a physical entity or a concrete product, they should not be excluded as a method of doing business as such.

29. Mr Howe submitted that claim 1 of the present application is directed to a computer network system suitably programmed for use in a particular application, and that, by analogy with the decision of the EPO Board of Appeal in *Pension Benefit Systems*, it has the character of a concrete apparatus in the sense of a physical entity, man-made for a utilitarian purpose and is thus not an excluded item within the meaning of section 1(2) of the Act.
30. *Prima facie* this looks like a very strong argument, and had it not been for the actual wording of the claim in *Merrill Lynch's Application*, I might have been persuaded by it. However, claim 1 in *Merrill Lynch's Application* was directed to “a data processing system for making a trading market”, and Lord Justice Fox concluded that that was “simply a method of doing business”. In other words, the fact that the claim was directed to a system (ie hardware or apparatus) did not avoid the terms of the exclusion of section 1(2). Moreover, I note that this is not the only time that a Court in the United Kingdom has looked beyond the actual form of words when construing a claim. In *Gale's Application* [1991] RPC, Lord Justice Nicholls says (page 326):

“I approach the substantial issue in this case, therefore, on the footing that it is convenient and right to strip away, as a confusing irrelevance, the fact that the claim is for ‘hardware’.”

31. And more recently, again in the Court of Appeal, Lord Justice Aldous followed the decision of the Court of Appeal in *Merrill Lynch's Application* when dealing with a similar argument in *Fujitsu Limited's Application* [1997] RPC. The following passage is recited from the top of page 618:

“Mr. Birss sought to rely upon the form of the claims. He submitted that claim 10, directed as it was to a computer apparatus having a number of features and claim 9 directed to a method of manufacturing a structure could not be said to relate to an invention consisting of a computer program as such.

That submission cannot be right having regard to the judgment of Nicholls L.J. in *Gale*. In that case, I held at first instance that the ROM claimed was not excluded as it was an article which had been altered during manufacture so as to perform the function of the method or program defined by the claim. The Court of Appeal decided that that was not correct and that the court should look at the claims as a matter of substance. It was both convenient and right to strip away, as a confusing irrelevance, the fact that the claim was for ‘hardware’.”

32. The apparent conflict between the EPO Board of Appeal's decision in *Pension Benefit Systems* and established law in the United Kingdom was considered recently by the Comptroller's Hearing Officer in *Pintos Global Services Ltd's Application*<sup>2</sup>. The following passage at paragraphs 25 to 28 of the Hearing Officer's decision in that case sets out the position very clearly:

“25. There is therefore a conflict between the recent decision of the EPO Technical Board of Appeal in *Pension Benefit Systems*, which specifically disapproved of the so-

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<sup>2</sup>In the matter of Application m GB9808661.4 in the name of Pintos Global Services Ltd, SRIS O/171/01, dated 6 April 2001.

called ‘contributions’ approach, and the long established practice of the United Kingdom Courts, originating from the *Merrill Lynch* judgment, from which it is clear that the decision as to what is patentable depends upon substance not form.

26. Furthermore, the approach suggested by the Board in *Pension Benefit Systems* conflicts with the practice of the Courts in this country in one other, very important respect. At paragraph 8 of its reasons, and following on from its decision that a claim in the form of apparatus was not excluded by article 52(1), the Board went on to consider whether the invention as claimed satisfied the requirements for novelty and inventive step. They said:

“Indeed, the improvement envisaged by the invention according to the application is an essentially economic one ie. lies in the field of economy, which, therefore, cannot contribute to inventive step.” (Emphasis provided)

27. The Board’s approach in this respect is summarised at the beginning of its decision in the following words:

“... the subject-matter as claimed, considered as a whole, did not provide any contribution to the art in a field not excluded from patentability under Article 52(2) EPC...”

28. Interestingly, the Board is here adopting an approach that was accepted by the Court of Appeal to be “erroneous” as long ago as 1989 in the *Merrill Lynch* case, and that is that on the determination of the question whether or not an application relates to an excluded matter it is necessary to take into account whether the non-excluded features are already known and obvious. In the event, I am in no doubt but that I am bound to follow the practice laid down by the Courts in the United Kingdom.”

33. I too believe that I am bound to follow the practice laid down by the UK Courts, and therefore I do not place much (if any) importance on the actual *form* of the claim, in deciding whether or not the invention defined in the claim is excluded from patentability by section 1(2). Instead I have looked to the *substance* of the invention, and taking the best view I can of the matter, it is clear to me that the invention as described and as claimed in this application is a program for a computer as such. As stated above, I do not consider that the program produces, or has the potential to produce, the necessary technical effect that would have demonstrated that the invention is more than a computer program as such. Consequently the invention as claimed in this application is excluded by section 1(2)(c).
34. I note in passing that, had the issue been entirely free from authority, I would in any event have preferred the approach adopted by the UK Courts. The reasoning of the EPO Board of Appeal in *Pension Benefit Systems* appears to me to exalt form over substance, and (in relation to article 52 at least) to determine the patentability of an invention in accordance with the manner in which it is claimed. At least insofar as the Patents Act 1977 is concerned, there does not appear to be any basis for determining the *patentability* of an invention by considering the *form* in which it is claimed.

### **Added Matter**

35. One of the objections that was raised during the examination phase of this application concerned an amendment to claim 1 that, in the opinion of the examiner, constituted added matter — contrary to section 76(2). The claim was further amended to overcome this objection shortly before the hearing, but (owing to a minor oversight) the corresponding statement of invention on page 2 of the specification was not amended accordingly. During the hearing on 26 February, Mr Howe asked for an opportunity to amend page 2, if my decision was to allow this application, so that the statement of invention would correspond with claim 1. If my decision was to refuse the application, Mr Howe recognised that there was very little to be gained by amending the statement of invention. I mention this here because if my decision is reversed on appeal, the statement of invention will need to be amended (as suggested by Mr Howe) before the application can be granted.

### **Summary**

36. In summary I have decided that the invention as claimed in this application is a program for a computer as such. Having read the specification in its entirety, I cannot envisage any amendment to the claims that would be allowed having regard to section 76, and that would overcome the exclusions to patentability. Accordingly I hereby refuse the application under section 18(3) on the grounds that the invention claimed therein is excluded by section 1(2)(c).

### **Appeal**

37. This being a substantive matter, any appeal from this decision must be lodged within six weeks of the date of this decision.

Dated this 30<sup>th</sup> day of April 2001

Stephen Probert  
Principal Examiner, acting for the Comptroller  
PATENT OFFICE