

examination report, the applicants submitted further amendments and some observations.

- 7 These were sufficient to satisfy the examiner that the amended claims were novel and inventive, but he was not persuaded that the invention was patentable. A hearing was offered to deal with this issue of patentability. The applicants, however, declined to attend a hearing and consequently this decision is based on the papers on file.

The application

- 8 The application relates to the automatic machine translation of a foreign language electronic communication (e.g. an email), and the automatic generation of a quotation for a human translation of the same communication. The machine translation and the quotation are sent to the recipient of the communication along with the original communication. The quotation is based on a number of criteria, including the quality of translation required, a user preference, the number of words to be translated and the cost per word for a particular language, the latter being dependent on the urgency of the translation and the number of translators available to provide this service.
- 9 The claims in their latest form (filed 19 January 2004) include independent claims 1, 15, 22 and 25 which read as follows:

1 A method for automatically transforming an electronic communication in a first language, said method including the steps of sending the communication from a sender in said first language;
automatically identifying the communication as a foreign language communication;
automatically determining by reference to a recipient's preference file a required quality of translation of the communication as required by a recipient;
substantially simultaneously applying a quotation program to the communication to generate a quotation for varying standards of translation of the communication to a second language;
substantially simultaneously generating a translation of the communication to the second language according to the translation quality specified in the recipient's preference file; and
forwarding the communication, the translation and the quotation to a recipient.

15 A system for automatically transforming a foreign language electronic communication the system comprising:
first means for sending a communication through a communications channel;
second means for:
a) receiving said communication;
b) identifying said communication as a foreign language communication; and
c) automatically determining by reference to a recipient's preference file a required quality of translation of the communication as required by a recipient;
third means for substantially simultaneously generating a quotation for varying standards of translation of said foreign language communication to a native language;
fourth means for substantially simultaneously generating a translation of the foreign

language communication to the native language according to the translation quality specified in said recipient's preference file;
fifth means for forwarding said communication, said translation and said quotation to the intended recipient; and
sixth means for said intended recipient to receive said communication, said translation and said quotation.

22 A computer in a networked computer environment, said computer programmed to perform the steps of:
receiving a communication from a sender in a first language;
automatically identifying the communication as a foreign language communication;
automatically determining by reference to a recipient's preference file a required quality of translation of the communication as required by a recipient;
substantially simultaneously applying a quotation program to the communication to generate a quotation for varying standards of translation of the communication to a native language;
substantially simultaneously generating a translation of the communication to the native language according to the translation quality specified in said recipient's preference file; and
forwarding the communication, the translation and the quotation to a recipient.

25 A method for negotiating and providing an electronic processing service in a service environment of senders and recipients of electronic communications and translation service providers, said method comprising the steps of:
a sender generating an electronic communication in a first language and sending said electronic communication to the translation service provider;
the translation service provider automatically identifying the electronic communication as a foreign language communication;
the translation service provider automatically determining by reference to an electronically stored preference file for an intended recipient of the electronic communication a required quality of translation of the foreign language communication as required by the recipient;
the translation service provider substantially simultaneously applying a quotation program to the foreign language communication to generate an electronic quotation for varying standards of translation of the communication to a second language;
the translation service provider substantially simultaneously generating a translation of the foreign language communication to the second language according to the translation quality specified in the recipient's preference file; and
the translation service provider forwarding the electronic foreign language communication, the translation of the foreign language communication and the electronic quotation to the recipient.

The law

- 10 The examiner has maintained that the application is excluded from patentability under Section 1(2)(c) of the Act, as relating to a method for doing business, a mental act and a program for a computer as such. The relevant parts of this section read:

A1(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 purpose of this Act only to the extent that a patent or application for a patent relates to that thing as such.@

- 11 These provisions are designated in Section 130(7) as being so framed as to have, as nearly as practicable, the same effect as Article 52 of the European Patent Convention, to which they correspond. I must therefore also have regard to the decisions of the European Boards of Appeal that have been issued under this Article in deciding whether the invention is patentable.

Interpretation

- 12 It is a well established principle of UK patent law that when assessing whether an invention relates to excluded subject matter, it is the substance of the invention that is important, not its form. For example, in *Merrill Lynch's Application [1989] RPC 561*, Fox LJ said at page 569:

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@

- 13 Thus the form of wording employed to define the invention in the claims is not relevant to the question of patentability. What I must do is identify the substance of the invention defined in the claims when properly construed and decide if that amounts to an excluded item as such.
- 14 Moreover, the Patent Office Practice Notice issued on 24 April 2002 entitled *Patents Act 1977: interpreting Section 1(2)*@ provides what I consider to be a convenient summary of the approach I should adopt in determining whether an invention constitutes an excluded item *as such*. I would summarize the practice notice as saying that even if an invention relates to an excluded field, it will not be refused as being unpatentable if it provides a technical contribution. In other words, if it makes a technical contribution is does not relate to the excluded item *As such*@

- 15 This interpretation follows the decision in *Fujitsu Limited's Application* [1997] RPC 608, in which Aldous LJ said at page 614:

However, it is and always has been a principle of patent law that mere discoveries or ideas are not patentable, but those discoveries and ideas which have a technical aspect or technical contribution are. Thus the concept that what is needed to make an excluded thing patentable is a technical contribution is not surprising. This was the basis for the decision of the Board in *Vicom*. It has been accepted by this court and by the EPO and has been applied since 1987. It is a concept at the heart of patent law.®

- 16 It is therefore incumbent upon me to decide whether the invention relates to one or more of the excluded categories. If it does, I need to decide whether it amounts to that thing as such by considering whether it makes any technical contribution.

Argument

The excluded categories

- 17 As outlined above, the application relates to an automated translation system which receives an electronic communication, identifies it as being in a foreign language, automatically performs a machine translation of the communication, and automatically produces a quotation for a translation to be performed by a human. The machine translation and the quotation are then passed to the recipient along with the original communication.
- 18 Irrespective of the way in which the claims are drafted, it is clear from the description that the invention involves programming various conventional pieces of hardware to perform the various functions of the translation system. As such, I am in no doubt that in essence the invention is a program for a computer and might therefore fall within this excluded category.
- 19 It also seems to me that each of the three main aspects to the invention, *viz.* (a) identifying whether a communication is in a foreign language, (b) translating the communication into a native language, and (c) preparing a quotation, are processes that are capable of being performed by a human. Indeed, one could envisage a corresponding non-automated system in which human operators carried out all these functions. Therefore the application might also fall within the mental act exclusion.
- 20 On the face of it, it might seem perverse to say that a process carried out by a computer is a mental act. However, the courts have made it perfectly clear that methods carried out by a computer can still constitute a mental act, even when the steps carried out are different when a computer is involved. This follows from the decision in *Wang* [1991] RPC 463 where Aldous J stated:

“The method may well be different when a computer is used, but to my mind it still remains a method for performing a mental act, whether or not the computer program adopts steps that would ordinarily be used by the human mind.”

- 21 This interpretation was followed in earlier decisions of the Comptroller’s Hearing Officers in relation to two applications from *International Business Machines Corporation*¹ both relating to the art of computer translation of natural languages, which were referred to in the correspondence between the examiner and the applicants’ representative, Mr Mathew Hall.
- 22 Again, the fact that some of the claims are framed as apparatus claims rather than method claims is immaterial to their interpretation with respect to this exclusion. In my view the processes enacted in the independent claims constitute a series of mental acts and the invention is potentially caught by the mental act exclusion.
- 23 Moreover, the entire process can also be viewed as a business process in which a translation service provides users with automatic translations of text between user-defined selected natural languages, and a cost-estimate for human translation of the text. Thus, in my opinion, the invention also falls within the general ambit of the “business method” exclusion.

Technical contribution

- 24 Finding that the application falls within the general area of the “computer program”, “mental act” and “business method” exclusions is not the end of the matter. What I must now do is decide it amounts to those things *as such* by applying the technical contribution test.
- 25 The applicants have accepted that the three main steps to the claimed invention, i.e. (a) identifying whether a communication is in a foreign language, (b) translating the communication into a native language, and (c) preparing a quotation for a human translation, are mental acts in themselves. Mr. Hall has, however, presented some arguments as to why he considers the automation and combination of these steps in the claimed invention to result in a technical contribution.
- 26 I turn firstly to the step of identifying whether a communication is in a foreign language. Mr. Hall argued that there is a distinction between the mental act of determining that a (non-electronic) communication is in a foreign language, and the step of determining that an *electronic* communication is a foreign language communication. This is because a human user of a recipient computer might not be able to recognize that an electronic communication is in a foreign language if his computer does not comprise the necessary coding module to display the foreign language characters. Indeed, the user might think he had received a corrupted communication rather than a foreign language communication. This is a problem which simply does not exist when the document transferred is a conventional, non-electronic one. In Mr Hall’s view, the step of recognizing electronically that a communication is in a foreign language provides a technical contribution.

¹ In the matter of Application Numbers GB9719454.2 & GB9721481.1 in the name of International Business Machines Corporation SRIS O/390/01 and SRIS O/399/01.

27 That logic is to my mind flawed. It is certainly the case that not all humans will have sufficient language skills to be able to decide whether a character string belongs to a particular language or is a corrupted message. In the same vein though, the electronic system will only be able to do this if it has been programmed to recognize the particular language. I see no difference. Increasing capability to recognize foreign language text is a matter of education, be that of the human recipient in a manual or semi manual system or the computer system in an automated one. I consider the step of determining that an electronic communication is in a foreign language to be just as much a mental act as determining that a non-electronic communication is in a foreign language. The fact that this language recognition is carried out by a computer (and thus in a “technical” environment) and not by a person does not, in itself, provide the required technical contribution. As is clear from the section of the *Wang* decision referred to above, even if the computer and a human were to follow different methods in identifying the language of the communication, this difference would not be relevant to the question of patentability.

28 Turning now to the other steps, the applicants have admitted that ‘merely performing a translation of a communication from a first language to a second language is a mental act and that merely calculating and providing a quotation for the cost of performing a translation is a mental act’. But, Mr. Hall has argued, the claimed invention is concerned with the combination of these steps, which is not a mental act because it would not be possible for a single human to perform at least a rough translation between any two languages, and substantially simultaneously prepare a quote for a translation, all within seconds of receiving the original communication.

29 There is in my mind no doubt that the majority of people would, with the help a dictionary, be able to produce a rough translation of a communication from a first language to a second one, and to produce a quotation for a more comprehensive translation. Of course doing so could be rather laborious and it would take somewhat longer than the “seconds” envisaged by the automated process of the present application. Nor would it be possible for these two steps to be carried out “substantially simultaneously”. Thus I agree that the present invention offers considerable improvements in terms of speed and processing power when compared to equivalent, non-automated methods. However, these advantages are just the advantages that naturally follow from using a computer to automate a process or combination of processes, and are not in themselves sufficient for the invention to be said to make a technical contribution. This follows from the decision of the Court of Appeal in *Fujitsu Limited’s Application [1997] RPC 608*, in which Aldous LJ said at page 618:

AMr. Birss is right that a computer set up according to the teaching in the patent application provides a new Atool@ for modelling crystal structure combinations which avoids labour and error. But those are just the sort of advantages that are obtained by the use of a computer program. Thus the fact that the patent application provides a new tool does not solve the question of whether the application consists of a program for a computer as such or whether it is a program for a computer with a technical contribution.@

30 Thus the fact that the system allows these two processes to be carried out simultaneously and

much quicker than a human could achieve does not in my view provide the required technical contribution.

31 Mr. Hall has further argued that a technical effect lies in the step of determining the quality of translation required by the recipient by reference to a preference file, since this again can lead to a reduction in processing time.

32 It seems to me that looking up the necessary information is just what the human translator/quotation provider would do, and the computer is not operating in any new technical way in doing this. Again, the reduction in processing time is just the effect one would expect from automating the translation/quotation steps. Therefore this aspect does not, in my view, confer a technical contribution.

33 In the final thread of argument put forward by Mr. Hall, he drew the examiner's attention to the decision in *Vicom/Computer-related invention* [1987] 1 OJEPO 14, where the EPO Technical Board of Appeal stated:

“Decisive is what technical contribution the invention as defined in the claim when considered as a whole makes to the known art.”

I agree with Mr Hall's interpretation of this passage, which is that an invention may comprise excluded and non-excluded subject matter and yet result in a claim not excluded from patentability. In other words, just because the claim contains some excluded matter does not make the invention defined in it unpatentable.

34 Mr Hall argued that the mental act steps (namely identifying whether a communication is in a foreign language, translating the foreign language communication, and providing a quotation for a human translation) are merely steps in a larger whole, which is a method, system and apparatus for efficiently processing electronic communications. Thus, he argued, the application lies in the technical field of electronic communication processing, and since this is a technical field, the claimed invention provides the necessary technical effect.

35 I have already referred to the decisions issued by the Comptroller's Hearing Officers on two *IBM* language translation applications cases. The inventions defined in both those applications were found to be unpatentable as mental acts and programs for computers as such. In her decision in the second of these², the Hearing Officer stated, “Since all automatic translators could be considered to be operating in a technical field, that of computers, I do not think it follows that, because a technical environment is involved, any contribution the invention claimed makes is necessarily technical.” Similarly in the present application, whilst it does not seem unreasonable for the agent to describe the claimed invention as lying in the technical field of “electronic communication processing”, it does not necessarily follow that the claimed invention makes a technical contribution.

36 In the absence of any indication to the contrary, I can only assume that the receipt and forwarding of the communication itself are entirely conventional. This aspect cannot therefore

² In the matter of Application Number GB9721481.1 in the name of International Business Machines Corporation SRIS O/399/01.

provide the technical contribution. Moreover, I have found the way the communication is processed, i.e. to produce a translation and a quotation, to be simply the automation of manual methods ie mental acts. The hardware involved in this automation, and the way in which it is programmed, are conventional, so there is no technical contribution here either. Accordingly, I can find nothing in the claimed invention which provides the required technical contribution.

- 37 For the sake of completeness I note that Mr. Hall made extensive reference in his observations to granted patent number GB 2349715 B2, which he stated was classified in the same technical area as the present application and whose claims could thus be used to “provide a guide to a potentially acceptable claim format for the present invention”. Claim 25 of the present application does have a similar structure to that of the granted independent claim of this other application. As the examiner correctly observed, however, framing the claims in a format similar to that which has been granted on another application does not in itself serve to demonstrate that the claims confer the necessary technical contribution. Each application must be decided on its own merits. Moreover, it is the substance of the invention that is important, not the form of wording adopted in the claims. Consequently I do not need to give further consideration to this or any other patent granted in deciding the patentability of the present invention.

Decision

- 38 I have found that the invention as claimed in this application is no more than the automation of a series of mental acts and of a business process using a computer, and that it fails to provide a technical contribution. I therefore find that it is excluded from patentability as a mental act, a method for doing business and a program for a computer as such. Although consideration has been focused on the independent claims, I can find nothing in the dependent claims or the specification that would provide support for any patentable claim. Accordingly I refuse this application under Section 18(3) on the grounds that the claimed invention is excluded by Section 1(2)(c).

Appeal

- 39 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

A BARTLETT

Deputy Director acting for the Comptroller