



PATENTS ACT 1977

APPLICANT	Lingo App Ltd.
ISSUE	Whether patent application GB1709984.7 complies with Section 1(2) of the Patents Act 1977, is novel and inventive and devoid of added matter
HEARING OFFICER	Ben Buchanan

DECISION

- 1 This decision relates to whether patent application GB1709984.7, in the name of Lingo App Ltd, complies with Section 1(2) of the Patents Act 1977 (“the Act”). The application was filed on 22 June 2017, with no claim to an earlier priority date. The application was published on 26 December 2018. The extended compliance period under rule 30 expired on 16 January 2023, although a request for a further discretionary extension has been filed.
- 2 The application was published without a search report, the Examiner considering that search was not justified because the application fell within the exclusions of Section 1(2)(c) of the Act. An Examination Opinion was issued at the time, outlining the Examiner’s objections. Similarly, at first examination, the only issue raised was the patentability of the application, although there was a reference to the citations on the equivalent PCT application published as WO2018/234732A1.
- 3 Subsequent examinations included objections to the novelty and inventiveness of the application, as well as its patentability. The issue of added matter was also raised in the examination report of 6 June 2022. Despite several rounds of amendment and examination, the Applicant was unable to persuade the Examiner that the application was patentable, novel and inventive, and devoid of added matter. Ultimately the Applicant requested a hearing to seek to resolve these issues. As things stand the search for prior art is incomplete, despite the Examiner having identified a further seven relevant documents in addition to those cited against the PCT equivalent.
- 4 Accordingly, the application came before me for a hearing on 6 January 2023. Shortly before the hearing, the Applicant’s appointed attorney withdrew their representation and the Applicant nominated themselves naming Mark Murray, the Director of the company, as the agent and address for service. A number of employees of the applicant company were present with principal representation being provided by Mark Murray and Madhur Goel.

- 5 The claims being considered were those filed on 28 October 2022, these being the most recently amended version. The most recently amended version of the description is that filed on 21 April 2022. Skeleton arguments were helpfully provided by the Applicant in advance of the hearing.
- 6 The matters to be decided are whether or not the claimed invention is excluded under Section 1(2) of the Act as a program for a computer *as such*, whether or not the claims are novel and inventive (Sections 1(1)(a) and 1(1)(b) of the Act), and whether or not the application contains added matter (Section 76(2)).

Subject matter

- 7 The application relates to a system which translates messages sent between two devices into an appropriate language for the recipient device. The translation is carried out at a server which receives a message from the sender device, translates it and then sends the translated message to the recipient device. The sender and recipient devices are typically mobile phones but may be other computing devices. Typically, the sender and recipient devices will swap roles as the users of the devices send messages back and forth between the devices. An overview of the system is given in figure 2 of the application (reproduced below)

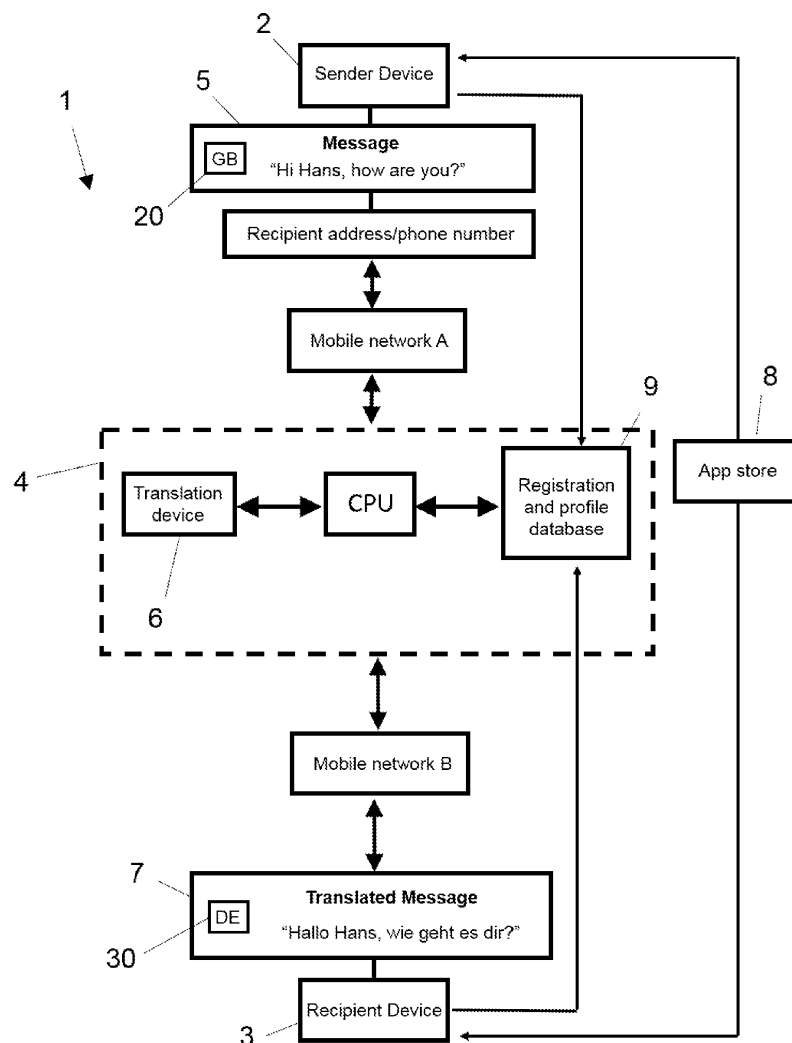


Figure 2

8 Figure 4 of the application (reproduced below) provides a flow diagram showing the steps involved in the translation according to an embodiment of the invention.

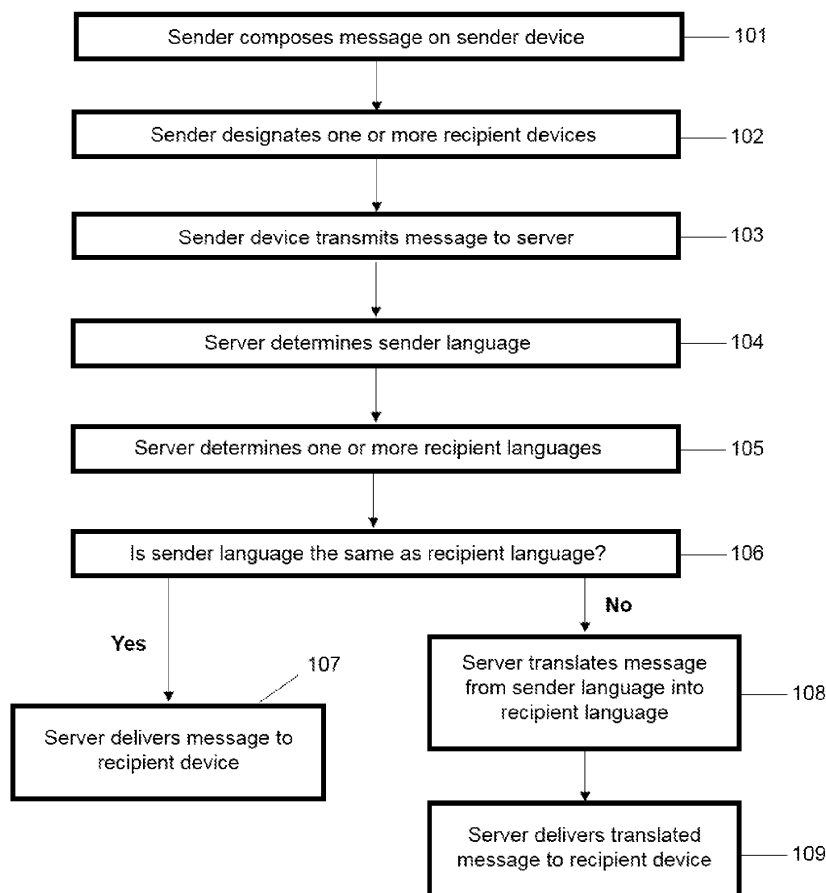


Figure 4

9 The two figures reproduced above provide a good overview of how the system works. However, there are further important details of the system which are set out below.

10 Firstly, the sender device only needs to send the message and an indication of the recipient device. The sender device is not required to indicate what language the recipient device requires. Similarly, the sender device does not need to explicitly specify the language of the originating message. Secondly, the preferred language for each device is preferably stored in the server as part of a profile associated with the user of the device and created by the user when the device is first registered with the server. Alternatively, other information may be used to determine the preferred language for one or other of the sender and recipient devices, such as a country associated with the user's service provider, the country code of a telephone number associated with the device, or the default language of the device.

Added matter

11 I will deal firstly and briefly with the Examiner's objection that the amended claims contained added matter.

12 The Examiner made their objection as follows:

3. *“Claim 1 lines 21-22 and claim 20 lines 21-22 define “when[sic] the language of the received message can be changed by the user of the recipient device to a preferred language”. Said phrase gives rise to two possible interpretations:*

i) the associated language of the recipient device can be changed by the user to a preferred language, such that messages received after the change will be in the new preferred language; and

ii) the language of the previously received messages can be changed by the user of the recipient device to a preferred language retrospectively.

4. *Page 1 line 28 to page 2 line 2 of the description as filed reads “Associated language [...] can be changed by the user to a preferred language which can be chosen from the many languages available through the application – an unlimited number of times at any given point of using this system.”*

5. *The cited passage therefore only supports interpretation (i). There is nothing in the cited passage to support the user may retrospectively change the language of the previously received messages. As such, interpretation (ii) adds matter. You should therefore amend claim 1 lines 21-22 and claim 20 lines 21-22 to remove the ambiguity and thus the added matter.*

13 The Applicant responded in their skeleton arguments *“that the claims only follow interpretation (i) and there is no basis of suggesting interpretation (ii)”*.

14 I agree with the Applicant on this point. The skilled person, when applying a purposive construction to understand the scope of the claims, would follow interpretation (i) because it is consistent with the description. This manner of operation corresponds to that described in the passage identified by the Examiner. On this basis, there is no added matter in the application. The specification as a whole supports no other construction.

15 I made my view on this clear to the Applicant at the hearing, and there was therefore no substantive argument at the hearing on this issue.

Patentability

16 The first issue at the hearing on which substantive argument was heard was the issue of whether or not the invention falls within the exclusions from patentability of Section 1(2)(c) of the Act.

The law

17 The relevant provisions of this section of the Act are shown below:

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

...

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

...

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.

- 18 The assessment of patentability under Section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*¹, as further interpreted by the Court of Appeal in *Symbian*². In *Aerotel* the court reviewed the case law on the interpretation of Section 1(2) and set out a four-step test to decide whether a claimed invention is patentable:

(1) Properly construe the claim;
(2) identify the actual contribution;
(3) ask whether it falls solely within the excluded subject matter;
(4) check whether the actual or alleged contribution is actually technical in nature.

- 19 The Court of Appeal in *Symbian* made it clear that the four-step test in *Aerotel* was not intended to be a new departure in domestic law; it was confirmed that the test is consistent with the previous requirement set out in case law that the invention must provide a “technical contribution”. Paragraph 46 of *Aerotel* states that applying the fourth step of the test may not be necessary because the third step should have covered the question of whether the contribution is technical in nature. It was further confirmed in *Symbian* that the question of whether the invention makes a technical contribution can take place at step 3 or 4.

- 20 Lewison J (as he then was) in *AT&T/CVON*³ set out five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC/Apple*⁴ the signposts were reformulated slightly in light of the decision in *Gemstar*⁵. The signposts are:

i) whether the claimed technical effect has a technical effect on a process which is carried on outside the computer
ii) whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run
iii) whether the claimed technical effect results in the computer being made to operate in a new way
iv) whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer
v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

¹ *Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1* [2007] RPC 7

² *Symbian Ltd v Comptroller General of Patents* [2009] RPC 1

³ *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

⁴ *HTC v Apple* [2013] EWCA Civ 451

⁵ *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

Application of the Aerotel approach

- 21 I confirmed that I would follow *Aerotel* and apply the *AT&T* signposts in considering the issue at hand, and the Applicant did not dispute this was the right approach.

Step (1): Properly construe the claim

- 22 The latest claims are those filed by the Applicant on 28 October 2022. There are two independent claims; claim 1 to a message translation and delivery system and claim 20 to a method of translating and delivering messages. These claims are generally similar and share all the same features. They are considered to have the same substantive scope such that only one of them need to be considered for the assessment of patentability. The two will stand or fall together.

- 23 Claim 1 reads as follows:

A message translation and delivery system comprising:

a sender device selected from a group comprising a mobile, a computer, and a tablet,

having or being assigned an associated sender language and configured to compose a message, send the message together with an indication of one or more recipient devices, where the indication is corresponding to one or more recipient device, where one or more recipient device being in a different place from the sender device, each recipient device having or being assigned an associated recipient language;

and a server, wherein the server is remote to both the sender device and the one or more recipient devices, and is configured to process a message by being configured to:

*receive a message from the sender device in the sender language;
to receive the indication of one or more recipient devices for the message;
determine the sender language of the message;
automatically determine the one or more recipient languages associated with the one or more recipient devices, where the recipient devices are from the indication;
translate the message from the sender language into one or more recipient languages if the sender language is different from one or more recipient languages;
and deliver the translated message to the one or more recipient devices in the recipient languages associated with each recipient through a wired or wireless network,*

wherein the sender device is also configured as a recipient device capable of receiving message from a sender device in a recipient language automatically determined by the server and when the language of the received message can be changed by the user of the recipient device to a preferred language.

- 24 I do not consider that there are any difficulties in construing the claim.
- 25 As has been discussed above, the final part of the claim “*when the language of the received message can be changed by the user of the recipient device to a preferred language*”, refers to messages received subsequent to the change of preferred language. i.e. the user can change their preferred language at any time, and any subsequently received messages will be translated into that language.
- 26 The Examiner summarises the invention of claims 1 and 20 as follows:
- a) A system and a method of translating and delivering messages from a sender device to a recipient device via a remote server, all being remote from one another,
 - b) the message being composed on the sender device in the sender language and transmitted to the server
 - c) along with an indication of which recipient devices to direct the message to,
 - d) the server determining the sender the sender⁶ language of the sender device and
 - e) automatically determining one or more recipient languages,
 - f) translating the message into recipient languages if the sender language is different to the recipient languages
 - g) and delivering the translated message to the recipient devices in the associated recipient languages,
 - h) the recipient devices being different to the sender device, and the sender device can be a recipient device at other times,
 - i) wherein the associated language of the recipient device can be changed by the user to a preferred language.
- 27 The Applicant indicated that they agreed with this summary of the invention.
- 28 It was emphasised at the hearing that the sender device sends a message *together with* an indication of the recipient devices ((b) and (c) above). I have to say that having carefully read the specification I cannot find any unambiguous disclosure that the message and the indication of the recipient device(s) are sent *together*. Rather, the description is silent on this. For example, on page 11, steps 101 and 102 refer to composing a message and designating a recipient device, but step 103 refers only to sending the message. Reference to Figure 2 suggests that the message and recipient are both determined before being sent to the network but it is not clear that they are sent *together*. They could be sent in sequence. I am willing to accept at face value that the message is sent together with the recipient device indication for the purposes of the arguments made during the hearing, but in construing this feature of the claim I make no formal finding. In the event that my decision turns on this, I will have to revisit the question.
- 29 At some points in the hearing the nature of the *indication* became confused because the Applicant used “indication” to refer to both the *indication* of the receiving device and an *indication* of the recipient language. For example, the Applicant stated that “the claim never says that the sender is sending that indication”. On the face of it this

⁶ I assume “the sender” is duplicated in error

is contrary to the definition in the claim that the sender “send the message together with an indication of one or more recipient devices”. It is also clear from the claim that this is the indication that is received by the server “which is configured to receive the indication of one or more recipient devices for the message”. This apparent contradiction is explained because specification only uses the term “indication” to refer to the *indication of the receiving device*, whereas in the hearing it was also used to refer to the *indication of the recipient language*. My use of “indication” is restricted to refer to the recipient device in accordance with the claims. I understand, however, that the specified recipient language may be obtained by reference to the indication of the recipient device, for example by looking up the recipient language in the indicated recipient profile in the server (description page 9 lines 26-29).

Step (2): Identify the actual or alleged contribution

- 30 Guidance on how to identify the contribution is given in paragraph 43 of *Aerotel*, where the court accepted the proposition that identifying the contribution is:

“an exercise in judgment probably involving the problem said to be solved, how the invention works, what its advantages are. What has the inventor really added to human knowledge perhaps best sums up the exercise. The formulation involves looking at substance not form.”

- 31 The main problem addressed by the invention is the prior art method of manually translating received messages by laboriously copying and pasting the text of the message into a translation service. The invention provides an “automated” process of translating messages. Another advantage of the invention is the use of the server to do the translation, rather than relying on the potentially limited processing power of, for example, a sender or recipient mobile phone.

- 32 In their examination report dated 11 November 2022 (and incorporated in their pre-hearing letter), the Examiner identifies the contribution as follows:

A computer implemented method for translating and delivering [a] message, comprising composing a message on a sender device in a sender language, transmitting the message to a remote server along with an indication of which recipient devices to send the message to, the server determining the sender language associated with the sender device and recipient languages associated with the recipient devices, translating the message from the sender language into the recipient languages if they are different, and delivering the translated message to the recipient devices.

- 33 The Applicant referred at the hearing to the High Court decision in *Protecting Kids the World Over (PKTWO)*⁷, drawing analogy with the approach taken as opposed to the invention itself.

- 34 The application in *PKTWO* was directed to a system for monitoring internet access and to generate a warning to a third party at a remote terminal, e.g. a mobile phone, if inappropriate content was being viewed. In *PKTWO*, the judge allowed the

⁷ *Protecting Kids the World Over (PKTWO) Ltd’s Application* [2011] EWHC 2720 (Pat)

application on the basis that there was a technical effect relating to the generation of the message at the remote terminal.

35 The Applicant points to a statement made at paragraph 34 of *PKTWO* where Floyd J states:

34 ... Secondly, the contribution of claim 33 does not simply produce a different display, or merely rely on the output of the computer and its effect on the user. The effect here, viewed as a whole, is an improved monitoring of the content of electronic communications. The monitoring is said to be technically superior to that produced by the prior art. That seems to me to have the necessary characteristics of a technical contribution outside the computer itself.

36 At the hearing the Applicant emphasised the use of the phrase “viewed as a whole” and pointed out that the contribution must be assessed on this basis. On this point I entirely agree with the Applicant. The claim and its contribution should indeed be considered as a whole, and not carved up or divorced from the prior art entirely. This point has also been made in other court decisions. Kitchin LJ in the Court of Appeal decision in *Lantana v Comptroller-General of Patents*⁸ stated (at paragraph 64):

“...it is the claim as a whole which must be considered when assessing the contribution which the invention has made, and that it is not permissible simply to cut the claim into pieces and then consider those pieces separately and without regard to the way they interact with each other”.

37 Nonetheless, following this approach, I do not consider that the Examiner has erred in any way in assessing the contribution which accurately reflects the invention defined in claim 1 when viewed as a whole.

38 The Applicant did not propose an alternative formulation. They did, however, make a number of points which they considered characterised the invention and its contribution:

- a) The system operates as a whole to enable a sender to compose a message in their preferred language and a recipient to receive it in their preferred language.
- b) The system provides a cross-lingual framework to enable communication from one language to another.
- c) The system is also capable of enabling communication to a multilingual group.
- d) The server is in a different location to the sending and receiving devices and is “blindfold”; in other words it does not know into which language(s) the message is to be translated until the message and the recipient indication is received.
- e) The recipient language for each recipient device is determined “automatically”.

⁸ *Lantana v Comptroller-General of Patents* [2014] EWCA Civ 1463

- f) The system comprises three “actors”: sender; server; recipient.
- g) The system comprises two “factors”: the message and the indication.

39 Their position is perhaps best summed up by reference to the skeleton arguments which state:

the claimed invention...achieves efficient message translation where the server automatically translates the message to the recipient language where the recipient language is based on the recipient device and the recipient device corresponds to the indication sent by the sender

40 I would just add to the above that “automatic” means in effect “in accordance with pre-configured options”. I think what the Applicant meant was that the sender did not have to specify the recipient language, much less copy and paste the message into a translation service themselves. Nonetheless, someone, somewhere, has to configure the recipient language (or the basis on which it is determined). This also explains what was meant by the server being “blindfold”. These are features of pre-configuration. Finally, I consider “along with” and “together with” to be equivalent.

41 The Applicant’s and the Examiner’s approaches seem to me to be consistent. I acknowledge that the Applicant explicitly states that the contribution is *efficient* and I will consider this when following the signposts; the Examiner’s form of the contribution implies efficiency by reflecting that the message is only translated *if necessary*. The Examiner’s form of the contribution also reflects the problem, how it works and the advantages. Accordingly, I endorse the Examiner’s assessment of the contribution and I shall adopt it.

Steps (3) & (4): Does the contribution fall solely within excluded subject matter; check if the contribution is actually technical.

42 The third and fourth steps of the *Aerotel* test involve considering whether the contribution falls solely within excluded categories, and then checking whether the contribution is technical in nature. It is appropriate to consider these two steps together because whether the contribution is technical in nature will have a direct impact on whether it falls solely within excluded matter.

43 Although the contribution is implemented using a computer program running on a network of computers, that does not mean that it should immediately be excluded as a computer program as such. In *Symbian*, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution.

44 In their examination reports, the Examiner has drawn a comparison between the invention defined in this application and that of CVON’s patent in *AT&T/CVON*. CVON’s application was directed to a messaging system, for sending messages between mobile terminals, which modified the message composed by the user to add an advertising slogan or tagline. The apparatus involved was conventional and the contribution was found to lie in the software of the server which modified the messages. The application was refused as being nothing more than a *method for doing business*.

- 45 The Examiner argued that because of the similarities between the two claimed inventions, the present application should similarly be refused. However, the Examiner concluded that this application relates to a *program for a computer* as such. At the hearing the Applicant argued that the comparison fails because the categories of exclusion are not the same. They alleged that the technical effect might be different for a business method than a computer program. I do not agree with this premise. Following *Aerotel* the contribution, and the resulting technical effect (if any), are determined independently of the excluded fields. The determination of which fields are relevant is a consequence of deciding what the contribution is, in the context of the claimed invention, and whether it is technical in nature.
- 46 When the contribution of an invention is found to lie wholly within two or more exclusions, the invention is still excluded. If the contribution is found to be both a computer program and a method for doing business, the application may be refused as both a method for doing business and a program for a computer. So, for example, a business method implemented on a conventional computer system would be excluded as both a method for doing business and a computer program as such. It is sufficient for just one of the excluded categories to render the application unpatentable. The fact that an application also falls wholly within another exclusion cannot save it from relating to an excluded thing. The Court of Appeal observed in *Symbian* (at paragraph 27) that one effect of the computer program exclusion is to prevent other excluded material becoming patentable merely by use of a computer in its implementation.
- 47 In the context of inventions which are both business methods and computer programs I note the following paragraph from *HTC v Apple*:

[47] Third, the exclusions operate cumulatively. So, for example, the invention in Gale related to a new way of calculating a square root of a number with the aid of a computer and Mr Gale sought to claim it as a ROM in which his program was stored. This was not permissible. The incorporation of the program in a ROM did not alter its nature: it was still a computer program (excluded matter) incorporating a mathematical method (also excluded matter). So also the invention in Macrossan [Aerotel] related to a way of making company formation documents and Mr Macrossan sought to claim it as a method using a data processing system. This was not permissible either: it was a computer program (excluded matter) for carrying out a method for doing business (also excluded matter).

- 48 Accordingly, where business methods are implemented on computers, if an invention is to be patentable, it must avoid both the business method exclusion and the computer program exclusion. In this vein I note also the comments of Birss J in *Halliburton Energy Services*⁹:

35. The business method cases can be tricky to analyse by just asking whether the invention has a technical effect or makes a technical contribution. The reason is that computers are self-evidently technical in nature. Thus when a business method is implemented on a computer, the patentee has a rich vein of arguments to deploy in seeking to contend that his invention gives rise to a

⁹ *Halliburton Energy Services Inc's Applications* [2012] RPC 129.

technical effect or makes a technical contribution. For example, the computer is said to be a faster, more efficient computerized book keeper than before, and surely, says the patentee, that is a technical effect or technical advance. And so it is, in a way, but the law has resolutely sought to hold the line at excluding such things from patents. That means that some apparently technical effects do not always count. So a computer programmed to be a better computer is patentable (Symbian) but as Fox LJ pointed out in relation the business method exclusion in Merrill Lynch, the fact that the method of doing business may be an improvement on previous methods is immaterial because the business method exclusion is generic.

- 49 The fact that the invention is a business method implemented on a computer, and is therefore arguably more than just a business method, does not necessarily save it from the exclusions of Section 1(2). Nevertheless, I must also bear in mind the further remarks made in *HTC v Apple*:

57. ... Now it is fair to say that this solution is embodied in software, but, as I have explained, an invention which is patentable in accordance with conventional patentable criteria does not become unpatentable because a computer program is used to implement it. I believe the judge took his eye off the ball in focussing on the fact that the invention was implemented in software and in doing so failed to look at the issue before him as a matter of substance not form. Had he done so he would have found that the problem and its solution are essentially technical in nature and so not excluded from patentability.

- 50 CVON's application may have been both a computer program and a method of doing business but it was refused on the latter basis. Similarly, the Examiner may have formed the view that the present application was both but refused it on the basis that it was a computer program. In view of the different category based on which CVON's application was refused, to that argued for refusal of this application by the Examiner, I would agree with the Applicant that it is not appropriate to compare the claimed inventions to determine the fate of the current application. The refusal of CVON's application on the basis that it was a business method does not necessarily support, or contra-indicate, the refusal of this application as a computer program.

- 51 Patentability is in any event a fact sensitive enquiry with every case being treated on its merits, albeit that similar cases may aid that enquiry and should give rise to similar outcomes. I will therefore determine independently whether the present claimed invention relates to a program for a computer as such, by considering the *AT&T signposts*.

First signpost – whether the claimed technical effect has a technical effect on a process which is carried on outside the computer

- 52 The invention is performed on standard hardware arranged in a conventional computing arrangement (client / server network). As such it forms a single computing arrangement consistent with the judgment of Birss J in *Lantana v Comptroller-General of Patents*.

- 53 The Applicant made no argument in relation to the first signpost. Indeed, they suggested that there was no external effect.

54 I agree. There is no external effect (i.e. outside the system) and this signpost does not help the Applicant.

Second signpost - whether the claimed technical effect operates at the level of the architecture of the computer; that is to say whether the effect is produced irrespective of the data being processed or the applications being run

55 In relation to the next three signposts, the so-called *better computer* signposts, the Applicant appeared to be under a misapprehension as to their precise meaning, adopting a rather loose interpretation of the signposts devoid of the context in which the signposts should be understood.

56 Some context on the application of these signposts is provided in *AT&T/CVON*:

33. *Again, therefore, the search is for a claimed invention which either has effects outside the computer, or which affects the operation of the computer itself. By "operation of the computer itself" I understand the Vice Chancellor to have envisaged an effect on the computer which was not dependant on the particular data being processed or the particular application being used.*

34. *In Symbian itself, the invention was patentable because it resulted in a faster and more reliable computer. The increase in speed and reliability was not, as I understand the invention, dependent on the type of data being processed or the particular application being used to do the processing. The invention operated at a much higher level of generality within the computer.*

57 So, for example, in relation to the second signpost, the Applicant based their argument specifically on the phrase *"irrespective of the data being processed"*. The Applicant argued that this phrase should be interpreted on the basis that the signpost will be met if the computer program operates regardless of the input. i.e. it works for all inputs, rather than a fixed input, and produces an output corresponding to the input. I understood that, in relation to their application, they mean that the program operates regardless of the content or language of the input message, and on this basis they argue that the second signpost is met and there is a corresponding technical effect.

58 However, this signpost is to be understood as relating to a program which effects the fundamental operation of the computer itself, essentially to the operating system software, and improvements to such software. Thus, the phrase *irrespective of the data being processed or the applications being run* should be interpreted as relating to all types of data and applications, i.e. the effect is produced irrespective of whether the computer is running, for example, word processing, image analysis, games or translation software. The current invention and its contribution only apply to the sending and receiving of messages in an associated messaging application. Therefore the effect is only and entirely dependent upon the message data processed and the messaging application being run.

59 I queried the assertion at the hearing that the claimed invention provided a different and improved architecture. In particular, the Applicant stated that *"the aspect of indication brings an actual architectural change to the conventional messaging architecture system"*. I do not dispute that software architecture is important.

However, and consistent with it being a change to conventional software messaging system architecture, I consider that such an “architectural” change is only in the design of the application program, i.e. it is simply a new application program operating on a conventional computer which provides the improved message translation system.

60 The underlying operating system and hardware architecture (to which the signpost refers) is unchanged. It is only the application layer “architecture” which is within the scope of the claimed invention. As the context to the signposts quoted above explains, this is not indicative of a technical effect, as it is not the architecture to which the signpost refers. Were it to software architecture, as the Applicant sought to persuade me, then any computer program could be deemed to pass the signpost simply by virtue of providing a new effect. That is clearly not what the signpost stands for.

61 The Applicant further tried to draw an analogy between the architecture of mechanical devices and chemical processes, and the architecture of computer programs. The analogy was I think intended to make the point that, whilst the architecture of mechanical devices is relatively plain to see, the architecture of computer programs is not, but that should not prevent them from being patentable. Indeed, the Applicant referred to the architecture of computer programs as being a flow chart or algorithm or system design steps. The analogy falls down, however, because computer programs are specifically excluded from patentability. An improved computer software architecture does not on its own, unless it contributes to an underlying improvement in the computer itself, provide the necessary technical effect to avoid the exclusions of Section 1(2).

62 The Applicant’s software is strictly limited to translating and sending messages and does not fall within the scope of the second signpost.

Third signpost - whether the claimed technical effect results in the computer being made to operate in a new way

63 In this instance the Applicant’s arguments focussed on the phrase “*operate in a new way*”. Their argument was that their software made the computer operate in a new way. Despite these arguments, the computer does not operate in a new way other than under the control of an application-layer program.

64 This signpost is really about the underlying computer hardware, such as the memory, processor, data bus, etc., operating in a new way. Any novel computer program may instruct the computer to run in a new way at the application level, and if this signpost were to be interpreted so broadly then the computer program exclusion would never apply to novel software. This signpost is intended to indicate a technical effect in a computer program that makes the computer it runs on a *better computer*.

65 The Applicant’s program does not cause the underlying computer hardware to run in a new way. The memory, processor and network connections all work in a conventional manner. The contribution of the application merely provides a new way of translating and sending messages. This signpost is not therefore met by the application.

Fourth signpost - whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer

- 66 As with the other better computer signposts, this signpost also does not help the Applicant. Although they argued that the computer was better, there was no substance to this argument beyond a statement to that effect. The “automatic” and “efficient” features acknowledged above should also be considered here. These advantages present to the user as a consequence of the improved software application. Whilst the outcome, as perceived by the user, is a more efficient and effective translation of messages, this is as a result of an improved message translation program. There is no change in the performance of the underlying computer; they do not provide a better computer per se.
- 67 Although the argument was not strongly made, the same applies to the step of translation being done at the server rather than a user device, making good use of the respective devices’ resources. This is a choice of implementation consistent with the conventional client / server architecture and does not indicate a better computer.
- 68 Given that the program is intended to run on conventional computers using conventional operating systems, with no effect on the underlying function of the components of the computer, I do not see that there is any underlying change to the computer itself. The computer operates the same way with or without the Applicant’s invention and the computer is no more efficient or effective as a result. Accordingly, none of the *better computer* signposts are met, and there is no technical effect evident on the basis of these signposts.

Fifth signpost - whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented

- 69 The Applicant’s argument in relation to the fifth signpost was based on the problem being the lack of an automated message translation system, with the Applicant’s system being a solution to that problem based in particular on the sending of the message along with the indication, and the server’s use of the indication to work out which language to translate the message into. The Applicant went on to argue that the lack of anything comparable in any of the prior art, and in particular no disclosure of a system of automatic translation based on an analogous indication, meant that the solution was inherently technical.
- 70 However, in order to satisfy the fifth signpost, the problem itself must be a technical problem. Whether or not a message is sent and displayed in a language which the recipient can understand is considered to be a logistical and linguistic problem and not a technical one. The same is true for the step of determining which language is used by the recipient. Whilst it is true that the system is technical, in that it is implemented on a computer, that is not sufficient to confer a technical effect upon the solution.
- 71 The problem in this case is considered to be how to “automate” translation of messages between users of client computers. This problem is a linguistics issue; a logistical or administrative problem reflecting the difficulty of translating a message from one language into another dependent upon the recipient. Whilst the invention

solves this problem, it does not derive any technical character from it because it is not a technical problem.

- 72 There is not considered to be any technical problem which the invention overcomes, and this signpost is also of no help to the Applicant.
- 73 I have carefully considered whether or not the contribution is technical in nature, and I have been guided by the signposts. In summary, in the absence of any technical effect, I find that claim 1 is directed to a program for a computer as such. Given that the substantive scope of claim 20 is the same as that of claim 1, I find that it is also directed to a program for a computer as such. For the avoidance of doubt, I have identified that the message being sent *together with* the indication is a part of the contribution, but I have not found it to be a technical feature or to provide any technical effect, and nothing turns on its validity. The independent claims do not therefore comply with Section 1(2)(c) of the Act and all the claims fail.

Novelty and inventive step

- 74 Having found that the application is unpatentable as it falls within the exclusions of Section 1(2)(c), I do not need to consider the issue of the novelty and inventiveness of the claims at all. Nonetheless, I will give some consideration to the Applicant's arguments which were set out in their skeleton arguments and reiterated at the hearing. I would note however, as stated previously, that the search for prior art is incomplete, so I can only make a determination on the basis of the evidence before me and further searching and consideration would be required for a full examination.
- 75 The Examiner's objection regarding the lack of novelty of the application was based on ten citations as follows:
- D1 US 2001/0029455 A1 (CHIN et al) See especially figures 2-4, 8 and 14, abstract, and paragraphs 38, 39, 44, 108-112, 117-118, 120, 122, 123, 226 and 261. Anticipates claims 1-3, 5, 8-13, 16, 17, 19-21.
 - D2 WO 2014/197463 A1 (MACH ZONE) See especially figures 1, 2, 5, 7-12, abstract, and paragraphs 5, 29, 71, 79, 137-142, 144, 145, 163-168 and 196. Anticipates claims 1-6, 8-12, 16, 17, 19-23.
 - D3 US 2009/0234633 A1 (CHAO-SUREN et al) See especially figures 1-4, abstract, and paragraphs 5, 7-9, 17-24 and 30. Anticipates claims 1-3, 5, 8-10, 16-21.
 - D4 KR 1020150113652 A (ASIA COMM) See especially paragraphs 21, 31, 32, 36-42, 47 and 48. Anticipates claims 1, 2, 4, 5, 8-10, 16-20.
 - D5 JP 2013140584 A (KAKAO CORP) See especially paragraphs 27, 28, 31, 35-49, and figures 1 and 3. Anticipates claims 1-5, 10, 16, 19-21.
 - D6 US 2007/0168450 A1 (PRAJAPAT et al.) See especially abstract, paragraphs 13, 15-17, 25-30, and figures 1 and 2. Anticipates claims 1, 2, 5, 8-13, 16, 18-20.

- D7 US 2007/0041370 A1 (CLEVELAND) See especially paragraphs 31, 36, 41-45, 49, 51, 64-66. Anticipates claims 1-5, 8-13, 16, 17, 19-21.
- D8 US 2002/0169592 A1 (AITYAN) See especially paragraphs 23, 49, 52, figure 7 and claim 1. Anticipates claims 1, 2, 5, 8-13, 16, 19 and 20.
- D9 WO 2015/041434 A1 (KIM) See especially paragraphs 14, 20, 44, 50-58, and figures 4 and 5. Anticipates claims 1, 2, 5, 8-10, 16, 19 and 20.
- D10 EP 2131537 A1 (BROADCOM) See especially figure 2 and paragraphs 7, 26, 36, 38 and 39. Anticipates claims 1, 2, 5, 8-13, 16, 17, 19 and 20.

76 Whilst the Examiner objected to both lack of novelty and lack of inventive step, the inventiveness objection related only to certain dependent claims and was not argued in any detail. Furthermore, the Examiner had expressly deferred consideration of the inventiveness of the independent claims pending resolution of their novelty. Accordingly, I only heard arguments relating to the novelty of the independent claims. As a consequence, I do not intend to go into any detail regarding the citations. Suffice to say they all disclose systems for automatically translating conversations held between remote users communicating via computing devices.

77 The Applicant again emphasised at this point in the hearing that, as required by claim 1, the message and the indication are sent *together*, and this was an important point distinguishing the invention from the cited prior art. As I have said, I am only accepting this assertion at face value, but nonetheless, on that basis I cannot see anything explicit in the Examiner's arguments to challenge the point.

78 For example, in the Examiner's discussion of the relevant disclosure of US 2001/0029455 A1 (D1), the Examiner highlights the *Current Users field* in figure 1 of D1 (reproduced below) and suggests that this infers a message and indication of the recipient being sent together.

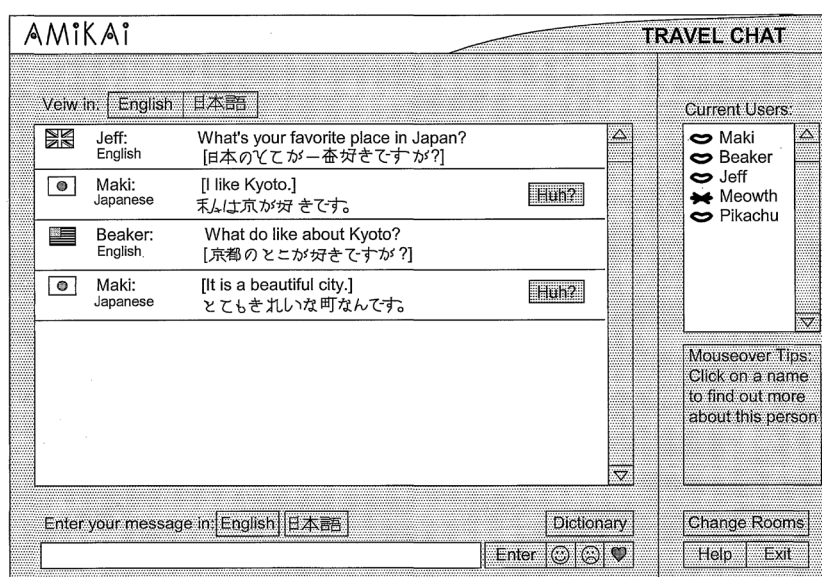


FIG. 1

- 79 The Examiner states that the indication of claim 1 is “*merely an identifier of which recipient device to direct the message to, similar to the “recipient” field in a standard messaging app.*” Whilst this may be true of claim 1, I do not consider that it reflects what is disclosed in D1.
- 80 D1 appears to be a chat room communication system where users communicate in a virtual environment. I consider it likely that in chat room systems the recipient(s) will likely be identified prior to the message being composed and sent. Thus, in relation to the Applicant’s point above, the message and indication are not sent together. Whilst it may be possible, and even obvious, for the message and indication to be sent together in such chat room systems, unless this is explicitly disclosed then it would not be seemingly inferred, and such citations are not novelty destroying.
- 81 Accordingly, I do not consider that D1 discloses sending a message together with an indication of the recipient.
- 82 There are potentially other differences between chat room systems and the invention. For example, it can be argued that the message is not *delivered* to the recipient device at all. Whilst the recipient is able to see the message displayed in a virtual chat room whilst accessing the server, that message is no longer present on the user’s device once the user logs off (unless that alternative is explicitly disclosed).
- 83 The Applicant also made the submission at the hearing that, at least in respect of D1, the server knows the language it is translating the message into before it receives the message. This was said to be different to the invention of the application, in which the server is not aware of the language for translation until after it has received the message together with the indication of the recipient, and has made the determination of the language based on the indication. I agree that this goes hand-in-hand with the requirement of claim 1 that the message is sent together with the indication, and I consider this is distinguished from chat room systems, such as D1, in which the recipient is known before the message is sent/submitted.
- 84 Ultimately, to my mind the Examiner has not persuasively made the case that the application lacks novelty on the basis of the cited documents. That is not to say that the claims are novel, only that the argument made so far does not establish that they are not. I would observe that, for the most part, it seems that the citations do not explicitly disclose sending a message together with an indication of a recipient, and for the invention to be anticipated, it would have to be inferred. However, it is not clear cut as to whether or not the skilled person would in fact do that.
- 85 It was briefly discussed as to whether well known messaging systems, using internet protocol, would inherently require an identity indication such as a telephone number to be sent together with a message. Such systems enable a user to create a profile which is stored on a server. The Applicant declined to comment, and pointed out that the comparison must take place as of before the priority date. That is fair enough, although I strongly suspect such systems did exist at the time. Nonetheless, in the absence of their being disclosed as using the indication to determine a recipient language and performing translation, I accept that on the face of it the present application is novel; recalling once again that the search for prior art is not complete.

- 86 In the Examiner's defence I have to say that the counter-arguments made in the Applicant's replies to the examination reports were not persuasive either and consisted largely of a blanket denial that the citations have any of the features of the claims. It would have been more helpful if the counter-arguments were focused on specific differences. Similarly, at the hearing the Applicant appeared to be suggesting that certain of the citations were not relevant because they had different features which were not relevant to the invention. So, for example, the Applicant referred to the fact that D2 incentivises users to submit corrections to translations and that D5 determines whether or not to translate a message based on its structure. Whilst these no doubt constitute differences between these citations and the invention, they do not appear relevant to the issue of novelty and the comparison that needs to be made between any corresponding features of these citations and the features defined by claim 1.
- 87 In the circumstances I have not considered the issue of novelty further. Having found that the application is excluded under Section 1(2)(c), I make no formal finding on the issue of novelty as the application is nonetheless refused.

Compliance period

- 88 The period for putting the application in order under rule 30 expired on 16 January 2023. Under rule 108(3) the period may be further extended by two months at the comptroller's discretion, however the request must be received before the end of the period of two months beginning immediately after the compliance period has expired. As things stand, a request to further extend the compliance period by *twelve weeks* has been filed but has not yet been carried out, in part because an extension to rule 30 under rule 108(3) can only be given for *two months* at a time. Given that the application is refused however, the applicant may wish to consider withdrawing the request for an extension and requesting a refund of the fee.

Conclusion

- 89 Since the invention fails to comply with Section 1(2)(c) of the Act because it is a computer program as such, the application is refused under Section 18 of the Act.

Appeal

- 90 Any appeal must be lodged within 28 days after the date of this decision.

Ben Buchanan

Deputy Director, acting for the Comptroller