



## PATENTS ACT 1977

APPLICANT Jeffrey Johnson Clawson

ISSUE Whether patent application number GB1016096.8  
complies with section 1(2)

HEARING OFFICER J E Porter

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## DECISION

### Introduction

- 1 Patent application GB1016096.8 entitled "Pandemic diagnostic and intervention tool for emergency dispatch" results from the entry into the UK national phase of international patent application PCT/US2010/043311. The international application was filed on 27 July 2010 in English, with a claim to priority of 14 September 2009. It was published as WO2011/031383 on 17 March 2011 in English and was reprinted as GB 2 482 358 A after entering the UK national phase.
- 2 Following amendment of the claims and several rounds of correspondence between the examiner and the applicant's attorneys, the examiner remains of the view that the claimed invention is excluded from patentability under section 1(2).
- 3 With the position unresolved, the applicant asked to be heard and the matter came before me at a hearing on 25 November 2014. The applicant was represented by patent attorneys Mr Andrew Alton and Mr Nick Burton from Urquhart-Dykes & Lord LLP. The examiner, Mr Jared Stokes, was also present and I was assisted by Mrs Mary Taylor of Patents Legal Section.

### The Invention

- 4 The invention is concerned with a computer-based system and method for assisting an emergency dispatcher in responding to emergency calls. The emergency medical dispatch response system has a diagnostic tool used by the dispatcher to collect symptom information systematically over the telephone. In particular, this is focussed on reliably identifying a pandemic illness. A message with the symptom information is sent to the responder who is going to the patient, allowing the responder to treat the patient appropriately and take any necessary precautions to reduce the spread of the illness. The invention also sets out to provide a way to receive geographical location information and analyse it to identify patterns and relationships within the data received to track the spread of a pandemic illness.

5 The latest amended claims were filed on 11 August 2014. The examiner raised concerns about the clarity of those amended claims in his letter of 20 November 2014 but said that the minor clarity issues did not appear to impact on the issue of excluded matter. At the hearing the attorney agreed that nothing turned on the clarity points for the purpose of the issues before me.

6 There are 36 claims, of which 4 are independent. Claim 1 is a method claim which reads as follows:

*A computer-implemented method to assist a dispatcher when communicating with a caller via telephone regarding a medical emergency of a patient, comprising:*

*a dispatch center computer system providing an emergency dispatch protocol to assist the dispatcher communicating with the caller via telephone regarding a medical emergency of a patient, the protocol presenting a plurality of interrogatories for the dispatcher to ask the caller to collect information regarding the medical emergency and generate an emergency medical dispatch response by emergency responders based on the collected information;*

*the dispatch center computer system initiating a diagnostic tool on the dispatch center computer system, the diagnostic tool configured to aid the dispatcher in uniformly collecting information about symptoms of a pandemic illness in a uniform consistent manner;*

*the diagnostic tool presenting to the dispatcher a user interface;*

*the diagnostic tool providing an instruction via the user interface for the dispatcher to vocally relay to the caller over the telephone to guide the caller in identifying symptoms of the pandemic illness that the patient is manifesting;*

*the diagnostic tool receiving dispatcher-entered input that is indicative of information about symptoms of a pandemic illness gathered and relayed by the caller, wherein the caller relays the symptom information to the dispatcher vocally over the telephone;*

*the diagnostic tool collecting symptom information from the dispatcher-entered input and compiling the symptom information into data having a uniform format that can be processed to monitor the spread of the pandemic illness;*

*the emergency dispatch protocol receiving the symptom information to generate the emergency dispatch response by passing the symptom information to a computer aided dispatch (CAD) system which communicates the symptom information using a communication resource to emergency responders to provide the emergency medical dispatch response; and*

*the dispatch center computer system transmitting the collected symptom information to a data analyzing module that is configured to identify patterns and relationships within data received by the data analyzing module.*

7 Independent claim 20 is directed to a computer system for collecting information to identify geographical clusters of symptoms of a pandemic illness and reads:

*A computer system for collecting information to identify geographical clusters of symptoms of a pandemic illness, the computer system comprising:*

*a processor;*

*an input device in electrical communication with the processor;*

*an output device in electrical communication with the processor; and*

*a memory in electrical communication with the processor, and having stored thereon:*

*an emergency dispatch protocol configured to assist a dispatcher communicating with a caller via telephone regarding a medical emergency of patient, wherein the emergency dispatch protocol provides a user interface to present a plurality of interrogatories for a dispatcher to ask a caller to generate an emergency medical dispatch response, wherein the emergency dispatch protocol receives geographical location information, which is transmitted to a data analyzing module that is configured to identify patterns and relationships within data received by the data analyzing module; and*

*a diagnostic tool to assist the dispatcher in guiding the caller in a uniform manner to gather symptom information relating to symptoms of the pandemic illness that the patient may be manifesting; wherein the diagnostic tool is configured to*

*present to the dispatcher a diagnostic tool user interface on an output device, including an instruction and a list of one or more symptoms for the dispatcher to vocally relay to the caller over the telephone to assist the caller in identifying symptoms of the pandemic illness the patient is manifesting,*

*receive, via the input device and the diagnostic tool user interface, dispatcher-entered input indicative of caller-relayed information regarding the symptoms of the pandemic illness that the patient is manifesting, and*

*collect symptom information from the dispatcher-entered input and compiling the symptom information into data having a uniform format that can be processed to monitor the spread of the pandemic illness, wherein the data is transmitted to the data analyzing module with the geographical location information to enable the data analyzing module to identify geographical clusters of symptoms of the pandemic illness,*

*the computer system further comprising a computer aided dispatch (CAD) system configured to manage dispatcher tools, including the emergency dispatch protocol, for processing emergency calls and including a communication resource for communicating with emergency responders,*

*wherein the emergency dispatch protocol is further configured to generate the emergency medical dispatch response by transferring symptom information collected by the diagnostic tool to the CAD system which uses said communication resource to communicate said symptom information to emergency responders to provide the emergency medical dispatch response.*

- 8 Independent claim 28 is directed to a computer-readable storage medium including instruction code for a dispatch centre computer performing a method to assist a dispatcher which is in almost identical terms to the method set out in claim 1.
- 9 Independent claim 33 is directed to a computer system to assist a dispatcher, when communicating with a caller via telephone regarding a medical emergency, configured in similar terms to those set out in claim 20 but without any reference to geographical location.
- 10 The attorney agreed at the hearing that the claims would fall or stand together on the issue before me.

## **The Law**

- 11 Section 1(2) declares that certain things are not inventions for the purposes of the Act, as follows:

*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) a discovery, scientific theory or mathematical method;*

*(b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;*

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

*(d) the presentation of information;*

*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.*

- 12 The examiner and the applicant agree that the assessment of patentability under section 1(2) is governed by the judgment of the Court of Appeal in *Aerotel*<sup>1</sup>, as further interpreted by the Court of Appeal in *Symbian*<sup>2</sup>.
- 13 In *Aerotel*, the court reviewed the case law on the interpretation of section 1(2) and approved a four-step test for the assessment of what is often called “excluded matter”, as follows:
- Step one: properly construe the claim*
- Step two: identify the actual contribution (although at the application stage this might have to be the alleged contribution)*
- Step three: ask whether it falls solely within the excluded matter*
- Step four: check whether the actual or alleged contribution is actually technical in nature.*
- 14 Subsequently, the Court of Appeal in *Symbian* made clear that the *Aerotel* test is not intended to provide a departure from the previous requirement set out in case law, namely that the invention must provide a “technical contribution” if it is not to fall within excluded matter. The *Aerotel* test has subsequently been endorsed by the Court of Appeal in its decisions in both *HTC*<sup>3</sup> and *Lantana*<sup>4</sup>.
- 15 The attorney’s submissions in response to the examination reports, in his skeleton argument and at the hearing covered various points concerning how the *Aerotel* test should be applied to the invention in question. I consider these submissions as part of my analysis below.
- 16 Furthermore, the attorney contends that section 4A is relevant to this particular case. The relevant part of section 4A is subsection (1), which reads as follows:

*A patent shall not be granted for the invention of –*

*(a) a method of treatment of the human or animal body by surgery or therapy, or*

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<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd and Macrossan’s Application* [2006] EWCA Civ 1371, [2007] RPC 7

<sup>2</sup> *Symbian Ltd’s Application* [2008] EWCA Civ 1066, [2009] RPC 1

<sup>3</sup> *HTC Europe Co Ltd v Apple Inc* [2013] RPC 30

<sup>4</sup> *Lantana Limited and The Comptroller General of Patents, Designs and Trade Marks* [2014] EWCA Civ 1463

*(b) a method of diagnosis practised on the human or animal body.*

## **Arguments and Analysis**

- 17 The examiner maintains that the claims define an invention which consists of a program for a computer. His position is set out most recently in his letter of 20 November 2014. Detailed arguments against the examiner's position are contained in the applicant's responses to the examination reports, through their attorneys, but in particular are set out in the skeleton argument provided on 18 November 2014. These arguments were elaborated clearly and helpfully at the hearing.
- 18 Taking all these arguments into account, I must determine whether the claimed invention relates solely to excluded subject matter under section 1(2).

### Construing the claims

- 19 The first step in deciding whether the invention is excluded from patentability is to construe the claims. As noted above, it was agreed that there are a number of outstanding minor clarity issues with the claims, but that these do not impinge on the matter I need to decide.
- 20 The attorney was keen to emphasise at the hearing that the claims include the step of sending a message with the symptom information to the responder so that they can provide the emergency response. I note that paragraph 3 of the examiner's pre-hearing report reflects this feature and refers to "a dispatch centre computer system to generate an emergency medical dispatch response (eg to dispatch medical staff with an indication of the level of severity of the emergency and with symptom/diagnosis information...)".
- 21 In paragraph 3 of the attorney's skeleton argument, he summarised the construction of the independent claims with particular focus on the diagnostic tool guiding a dispatcher to obtain symptom information in a systematic way and passing the symptom information to a computer aided dispatch system, which uses a communication resource to send symptom information to an emergency responder so as to generate an emergency medical dispatch response. I agree with the overall thrust of this construction, although it is clear that the claims are set out in more detailed terms.
- 22 Claim 1 concerns a computer-implemented method to assist a dispatcher when communicating with a caller during a medical emergency. The method involves providing a dispatch centre computer system, with an emergency dispatch protocol and a diagnostic tool. The emergency dispatch protocol presents questions for the dispatcher to ask the caller in order to collect information regarding the emergency, and generates an emergency medical dispatch response. The diagnostic tool is initiated to help the dispatcher collect information about symptoms of a pandemic illness in a uniform, consistent manner. It does this via a user interface which provides instructions to the dispatcher regarding what to relay to the caller, and which receives dispatcher-entered information gathered as a result. The diagnostic tool collects and compiles symptom information into a uniform format in order to monitor the spread of a pandemic illness. The emergency dispatch protocol receives this symptom information from the diagnostic tool and uses it to generate the

emergency dispatch response. It is passed to a computer aided dispatch system which communicates the information to emergency responders. Furthermore, collected symptom information is sent to a data analysing module configured to identify patterns and relationships.

- 23 Claim 28 is directed to a computer-readable storage medium which includes code for a dispatch centre computer performing a method which is substantively the method of claim 1. Claim 33 is directed to a computer system with features substantively corresponding to those of claim 1.
- 24 Claim 20 is directed to a computer system for collecting information to identify geographical clusters of symptoms of a pandemic illness. The computer system comprises a processor, input and output devices and a memory. The memory stores an emergency despatch protocol which operates in closely similar terms to that of claim 1, but the protocol specifically receives geographical location information. The memory also stores a diagnostic tool which operates in closely similar terms to that of claim 1, although the symptom information data passed to the data analysing module is sent with the geographical location information. The computer system also comprises a computer aided dispatch system which includes a communication resource for communicating with emergency responders. As in claim 1, the emergency dispatch protocol receives the symptom information from the diagnostic tool and uses it to generate the emergency dispatch response via the computer aided dispatch system.

#### Identifying the contribution

- 25 In paragraph 43 of *Aerotel*, it is made clear that identifying the contribution is probably best summed up as determining what the inventor has really added to human knowledge, and this involves looking at the substance and not the form of the claim (as construed in step one). However, the court in *Aerotel* acknowledged that, for a patent application (as opposed to a granted patent), it may only be possible to identify the alleged, and not the actual, contribution.
- 26 The examiner's view is set out in paragraphs 5 and 6 of the pre-hearing report. In paragraph 5, his view is that the contribution is "a diagnostic tool, for use by a dispatcher, which automatically provides the dispatcher with questions to ask the caller about the emergency and their symptoms and collects symptom information in a uniform format for identification of patterns within the data, generation of a dispatch response and onward relay to [a] emergency responders".
- 27 I note at this point that the attorney was critical of the examiner's discussion of the contribution in paragraph 6 of the pre-hearing report, where the contribution was set out in more generic (automated data collection) terms with no reference to diagnosis or the context of the invention. The attorney's point was that, at this level of generality, the contribution could have been said to cover all sorts of things, both patentable and unpatentable. I have borne that point in mind as part of my analysis.
- 28 The attorney said in his skeleton, and emphasised at the hearing, that it is important to concentrate on the substance of the invention rather than the form of the individual claims and that, as set out in *Aerotel*, the claim as a whole must be considered. This, he pointed out, was recently reiterated in paragraph 64 of *Lantana* which says

“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”.

- 29 Of course I accept this entirely. In particular, it does not necessarily follow that, because a particular element of a system is known, any contribution made by that element can be dismissed. What is required is to assess the contribution made by the claimed invention as a whole, and so the interaction between the various elements (known or otherwise) needs to be borne in mind when making that assessment.
- 30 The attorney helpfully drew a diagram during the hearing showing a prior art system and the system of the invention. He explained how it was already known to have a computer dispatch system with an emergency dispatch protocol for obtaining information from a caller over the telephone, and then sending a message or information to a responder. What was different about the present invention was the addition of the diagnostic tool, which enabled symptom information to be collected uniformly and consistently, and the message then sent to the responder could show that the symptoms indicated a pandemic illness.
- 31 Looking at it by asking what the problem solved by the invention was, the attorney said that the problem solved was the remote diagnosis of a pandemic illness, helping to prevent the spread of the illness and saving lives. His point here was that messages or information sent to the emergency responders were improved over prior art messages, because of the uniform and consistent collecting of information regarding symptoms of a pandemic illness via the diagnostic tool. Thus, the attorney said, sending a message to a responder from a dispatch system was not new, but in the present invention the message to the responder was a better message.
- 32 This meant, he said, the invention had several advantages over prior art systems. It was argued that it allows more reliable identification of a pandemic illness in a remote patient, and more relevant information to be sent to the responder to provide the appropriate response. Also, responders may take suitable precautions to help stop them becoming infected and further spreading the illness.
- 33 The attorney, quoting paragraph 48 of *HTC*, said it was helpful to ask “what does the invention contribute to the art as a matter of practical reality over and above the fact that it relates to a program for a computer”? In this respect, at the hearing he referred to paragraph 38 of the description, which explains that the diagnostic tools “may greatly improve information collection and intervention for emergency medical response situations and aid in saving lives”, and to paragraph 39 of the description, which says the diagnostic tool “may aid the dispatcher and/or the caller (via instructions from the dispatcher) in diagnosing a condition of a patient”. His skeleton also referred to the point mentioned above about providing a medical response in a way which does not itself increase the spread of the pandemic. These points, argued the attorney, were the practical, real-world effects of the computer program when run which needed to be considered (and he pointed to the reference in the *Manual of Patent Practice* at paragraph 1.13 to this effect).

- 34 In summary, the attorney's position (set out in paragraph 13 of the skeleton) was that the contribution provided by the invention as a whole is "a communication system which more reliably identifies a pandemic illness of a remote patient and automatically notifies an emergency responder to provide an emergency medical dispatch response to the patient appropriate to the pandemic illness to reduce the spread of the pandemic illness".
- 35 In my view, it is clear that the specification does not suggest that it has disclosed some new clinical insight – such as a new way of diagnosing the presence of a particular illness based on certain medical information. The invention does not make a contribution in terms of teaching responders how they should use or react to the medical information they are given. Under this invention, a responder will respond on the basis of particular medical information in exactly the same way as they would have responded if they had been given that medical information prior to disclosure of the invention.
- 36 Similarly, although the structuring of the questions, logical steps and decision trees within the diagnostic tool may well be complex (needing to cover, I assume, a significant number of possible symptoms and possible pandemic illnesses), there is no suggestion or disclosure in the specification which teaches combining or working through this medical information in a different way. It is entirely existing medical knowledge that is being collated and worked through, via a series of questions delivered by the diagnostic tool.
- 37 So what has really been added to the sum of human knowledge? The attorney was clear that the difference between the invention and prior art systems was the addition of the diagnostic tool. The diagnostic tool which (at this stage) is taken to be novel and inventive<sup>5</sup> must form at least a part of the alleged contribution.
- 38 The emergency protocol of the prior art requires the dispatcher to ask certain questions and get certain information from the caller in order to dispatch a responder. The additional diagnostic tool of the invention guides the dispatcher through a series of more specific questions, formulated with a view to identifying and responding to a pandemic illness. That in my view is the practical effect of running the diagnostic tool.
- 39 Although the information obtained by the dispatcher from the caller is therefore likely to be more full and consistent, having been more systematically obtained, the emergency dispatch protocol and other elements of the system then interact and operate in a conventional way and generate the emergency response containing the information obtained. In that sense this does not point towards the contribution being a new system overall, or (even wider) a new way of managing a pandemic, but something rather narrower.
- 40 The attorney talked about saving lives, and set the contribution in terms of reducing the spread of pandemic illnesses. In my view, it is evident that having better (more accurate, more relevant) medical information is likely generally to lead to better medical treatment. Because the invention in question puts forward further structured

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<sup>5</sup> The examiner has deferred any consideration of novelty or inventive step. The reference in step two of the *Aerotel* test to the "alleged" contribution pre-grant reflects circumstances such as these.



questioning and collation of information, the attorney was, in essence, inviting me to agree that this should mean that the properly-assessed contribution goes as wide as the possible consequences which arise from generally having responders acting upon improved medical information. But I am not convinced that this conclusion should follow, based on the facts of what has been added to the sum of human knowledge and my assessment above.

- 41 For all these reasons, I do not think it right to claim that the contribution that has really been made, as a matter of practical reality, is a better way of treating or reducing the spread of pandemic illnesses.
- 42 In my view, the contribution made by the invention is an improved way of obtaining and analysing medical information from a caller, by using a diagnostic tool to structure diagnostic questions in relation to existing medical understanding of symptoms and pandemic illnesses in a way which ensures that a dispatcher can obtain the required information and store it consistently for passing to the responder.

Does the contribution fall solely within excluded matter/is it technical in nature?

- 43 What I must now decide is whether the contribution identified above relates solely to a program for a computer or a scheme, rule or method for doing business. This corresponds to step three of the *Aerotel* test.
- 44 The fourth step of the test is to check whether the contribution is technical in nature. In paragraph 46 of *Aerotel* it is stated that applying this fourth step may not be necessary because the third step should have covered the question. This is because a contribution which consists solely of excluded matter will not count as being a “technical contribution” and thus will not, as the fourth step puts it, be “technical in nature”. Similarly a contribution which consists of more than excluded matter will be a “technical contribution” and so will be “technical in nature”.
- 45 In this case, the arguments concerning whether the invention is excluded are very much wrapped up with the question of whether the contribution is technical in nature. Given that, I have considered the third and fourth steps together.
- 46 The examiner’s contention is that the contribution is a computer program and also, by virtue of its administrative nature, a business method. He says that there is no technical effect on the computer, such as making it faster or more reliable. He says the automated questioning and decision-making process, and subsequent communication to the responder, does not provide a technical effect outside the computer.
- 47 The attorney’s first argument relates to the significance of section 4A to this particular invention. He noted that section 4A says that “a patent shall not be granted for the invention” of a method of diagnosis practised on the human or animal body, whereas section 1(2) says that computer programs and methods of doing business (among other things) “are not inventions for the purposes of this Act”. This means, he said, that methods of diagnosis are inventions, and thus are technical. They cannot be excluded under section 1(2) as not being inventions. At the hearing he put it like this: “the invention is basically an improved diagnostic system and method. Diagnostic systems and methods are not prohibited under section 1(2).

They are inventions for which patents should not be granted. They are not “not inventions”.”

- 48 The attorney pointed to paragraph 1.05 of the *Manual of Patent Practice*<sup>6</sup> and various paragraphs in chapter 4A discussing diagnostic methods and apparatus in support of this distinction. He also referred to *Raytheon*<sup>7</sup> which provides that, if the contribution includes any features not in any of the exclusions in section 1(2), then the contribution is not excluded as such. Taking this all together, the argument was that a method of diagnosis comprising technical features is to be regarded as being patentable, regardless of whether the essential feature of the invention is non-technical in nature. Claim 1 of the present application, he said, defines a method of diagnosis comprising both technical and non-technical features, so therefore it must be patentable irrespective of whether the essential feature of the invention is non-technical.
- 49 In any event, the attorney went to some trouble at the hearing to set out, with reference to the *Manual*, why he did not consider that the invention (either when claimed as a method or as a system/apparatus) was a method of diagnosis of the sort prevented from getting a patent under section 4A.
- 50 I think these arguments needs to be treated with great caution. First, at this point the attorney’s arguments seem to be more directed to the invention in a general sense. But I am mindful that what I am considering at steps 3 and 4 is not the invention in a general sense but the nature of the contribution, properly identified. The question is whether that contribution falls within excluded matter (or is “technical”), not whether the invention is of a general type to be regarded as a method of diagnosis.
- 51 This point aside, it seems to me that an invention is either within the scope of section 4A or it is not. If the invention is properly considered to be within section 4A, then it is a method of diagnosis of the type identified by section 4A and it is an invention which cannot be patented. If it is not within the scope of section 4A, then it is not a method of diagnosis within the meaning of that section. If so, I do not think section 4A can then assist me in determining whether it is an invention or not. In my view, the Act does not provide for a category of methods of diagnosis which are somehow generally defined by section 4A as being “inventions” but which are nevertheless not prevented from being granted a patent by that section. I note that, during the several rounds of correspondence before the hearing, the examiner has never suggested that the invention is not patentable under section 4A.
- 52 This moves me on to the more specific arguments presented as to why the contribution made by the invention is not solely a program for a computer. In this respect, the attorney referred to the first of the five “signposts” set out by Lewison J (as he was then) in his judgment in *AT&T/CVON*<sup>8</sup>. It is established that these signposts can be helpful (but not more than that) in indicating whether there is a relevant technical contribution. At the hearing the attorney confirmed that he did not

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<sup>6</sup> In particular the reference to “certain things which, for the purposes of the Act, are not to be regarded as inventions...and certain inventions for which a patent will not be granted”.

<sup>7</sup> *Raytheon Co’s Application* [2007] EWHC 1230 (Pat)

<sup>8</sup> *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat), [2009] FSR 19

think that any of the other signposts were relevant. I have also considered them and agree with that view.

- 53 The first signpost is “where the claimed technical effect has a technical effect on a process which is carried on outside the computer”, and the attorney’s contention is that this signpost points to patentability in this case. This is because the message sent to the responder has a technical effect outside the computer, in that it enables better diagnosis and the control of the spread of a pandemic illness. The message to the responder, he said, is an improved communication and, whilst not all communications coming from a computer system may bestow patentability, a communication which has a useful and new effect in the real world would do so.
- 54 It is important that I bear in mind the contribution as I have assessed it. In doing that, I am satisfied that the creation in software of detailed questions and decision structures, relating to and processing data with respect to medical symptoms, does not have characteristics beyond those of a program *per se*. It may well be a complex and lengthy process to set out many possible questions, symptoms and their interrelationships and possible diagnoses, as well as linking to certain pandemic data – but the complexity and length of that process does not make it more than a computer program. It is the collection, codification and ordering of known medical diagnostic questions and information through software.
- 55 I do not agree that the first *AT&T/CVON* signpost points to patentability when applied to the contribution as identified. The collation and ordering of data is done through software wholly within the computer. The resultant message is technically conventional in the way it is generated and communicated. I agree that it contains different data or information from that provided by prior art systems (although as noted above this is not data or information which is medically novel – the invention is concerned with collating and ordering known medical knowledge and diagnoses). But I consider that collating and ordering data in a way which is different from prior art systems, and then sending (in a conventional technical way) a message containing that data, does not provide a technical effect on a process outside the computer in the context of the present invention.
- 56 While he accepted at the hearing that these matters are very fact dependent, the attorney argued a similarity with the alarm feature in *PKTWO*<sup>9</sup>, which alerted the user at a remote terminal that inappropriate content was being processed on a computer. In that case, Floyd J (as he then was) accepted that in many instances the generation and transmission of an alert notification is not a relevant technical process. However, he held that the invention in that case did not just produce a different display or rely on the output from a computer and its effect on the user, but was an improved monitoring of the content of electronic communications which was “technically superior to that produced by the prior art”. The invention solved a “technical problem lying outside of the computer, namely how to improve on the inappropriate communication alarm generation provided by the prior art”. The attorney said that the invention in the present case is also “technically superior” because it allows dispatchers to gather information in a more uniform and reliable way and send an improved message to responders.

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<sup>9</sup> *Protecting Kids The World Over (PKTWO) Ltd's Patent Application* [2011] EWHC 2720 (Pat), [2012] RPC 13

- 57 I have already set out above why I think the contribution is concerned with the collection, codification and ordering of known medical diagnostic information through software, and why I consider the message containing different medical data is not providing a technical effect on a process outside the computer in the context of the contribution. Furthermore, I note that Floyd J held in *PKTWO* that the contribution included “a more rapid and reliable alarm notification”. It was the rapidity and reliability of the alarm notification in comparison to prior art systems which was held to be “not known” and so to form a part of the contribution. This led to the “technically superior” finding, in relation to the improved monitoring of the content of electronic communications.
- 58 Thus I can see a clear distinction between, on the one hand, the more rapid and reliable alarm and the improved monitoring of electronic communications of *PKTWO* and, on the other, the formulation of questions and decisions in the present case, along with messages which are equivalent to the prior art but for the information obtained through the questioning and decision process of the diagnostic tool.
- 59 Given this distinction, my reasoning above and in light of Floyd J’s statement at paragraph 35 of *PKTWO* that his judgment was based on “the very specific facts of the case before me”, I do not see that *PKTWO* demonstrates how the contribution that I have identified in this case is “technically superior” to prior art systems or solves a technical problem lying outside of the computer.
- 60 For all these reasons, it follows that the contribution I have identified is not technical in nature, and relates solely to a program for a computer.
- 61 I must also consider the examiner’s business method objection, which was based on his view of the “administrative nature” of the contribution – it being, in his view, a method of automating data collection, analysis and dispatch.
- 62 The attorney argued that the invention is not just concerned with collecting information, processing it and generating data – this was neither what was claimed nor what the contribution was. He was critical of the examiner’s discussion of the contribution in paragraph 6 of the pre-hearing report (see paragraph 27 above) and its level of generalisation. He emphasised that it was necessary to understand the nature of the information gathered by the diagnostic tool, why it is gathered, how and to what effect.
- 63 He argued that there is nothing in the invention concerned with running a business, and reiterated that the invention collects symptom information, analyses it to make a diagnosis and issues a message to a responder with the technical effect of preventing the pandemic illness being spread. The attorney further argued that a doctor who examined and diagnosed someone could not be described as doing something “administrative”.
- 64 In my view, the correct answer to these points lies in looking at the contribution as I have found it to be and in my analysis of whether it is technical. My finding in relation to the contribution does not generalise the invention to the level of generic data processing, but retains the medical diagnostic context of the invention. Nevertheless, the contribution is clearly not a doctor examining and diagnosing a

patient. So the attorney's contention that such an act cannot be considered "administrative" or a business method is not relevant to my determination.

- 65 Although not binding on me, I note that paragraph 1.33.2 of the *Manual of Patent Practice* says that the expression "doing business" is "not restricted to financial or commercial activities, but embraces administrative, organisational and managerial activities". The attorney argued that the present invention was systematic and organised, but that was not to be confused with something being "administrative" which was about matters to do with running an entity.
- 66 As I have already noted, the contribution is concerned with the collection, codification and ordering of known medical diagnostic information through software. It also concerns the passing on of that information to the responder. In my view, these steps – put in place to allow someone unskilled and not present with the patient to collect pandemic symptom information in a consistent way for use by others – do amount to the handling and organisation of information in the sense envisaged by the *Manual*. Although clearly potentially a lot of work to create software to collect and make sense of symptom information from many different possible clinical situations, this contribution seems to me to fall squarely within the wider type of business method, in terms of administrating, codifying, organising and then outputting the diagnostic information.
- 67 To summarise – I am satisfied that the contribution made by the invention falls solely within the category of a program for a computer and is not "technical in nature". It is also a scheme, rule or method for doing business. It falls solely within excluded matter and fails to comply with steps three and four of the *Aerotel* test.

### **Conclusion**

- 68 I conclude that the claimed invention is excluded from patentability under section 1(2)(c) because it is no more than a program for a computer and a scheme, rule or method for doing business.
- 69 I can find no other disclosure in the specification upon which patentable claims might be based. I therefore refuse the application under section 18(3) for failure to comply with section 1(2)(c).

### **Appeal**

- 70 Any appeal must be lodged within 28 days.

**Dr J E Porter**

Deputy Director, acting for the Comptroller