Intellectual Property Office

BL O/0865/23

13 September 2023

PATENTS ACT 1977

PARTIES	Geo-Pro-Teq IP Pty Ltd
ISSUE	Whether patent application GB 2216277.0 complies with Section 1(2) of the Patents Act 1977
HEARING OFFICER	Ben Buchanan

DECISION

Background

1 This decision relates to whether patent application GB2216277.0, published as GB2609584A, complies with Section 1(2) of the Patents Act 1977 ("the Act").

2 The application is divided from GB1915720.5 (the "parent") which was the national phase of a PCT application filed on 29 March 2018. The PCT application was originally published as WO2018/176100 A1 and has an earliest priority date of 31 March 2017.

3 I issued a decision (BL O/1033/22) on 24 November 2022 refusing the parent application, following a hearing.

4 The subject matter of the two applications is very similar. Indeed, the original claims filed on this application were identical to those submitted as the second auxiliary request for the hearing on the parent application. I considered these claims as part of my decision on the parent application and held that they were excluded.

5 The first examination report on this application was largely confined to the issue of patentability, with the examiner objecting that it appeared to be excluded under Section 1(2)(c) of the Act on the basis of my decision on the parent. The examiner also reported that search would serve no useful purpose and that assessment of the novelty and inventiveness of the application was deferred.

6 The claims were subsequently significantly amended, but the examiner maintained the patentability objection in a further examination report. The examiner suggested the applicant request a hearing to resolve the issue, which they duly did.

7 Accordingly, the matter came before me for a hearing on 21 June 2023 at which the applicant was represented by their attorney Bruce Dearling of Hepworth Browne.

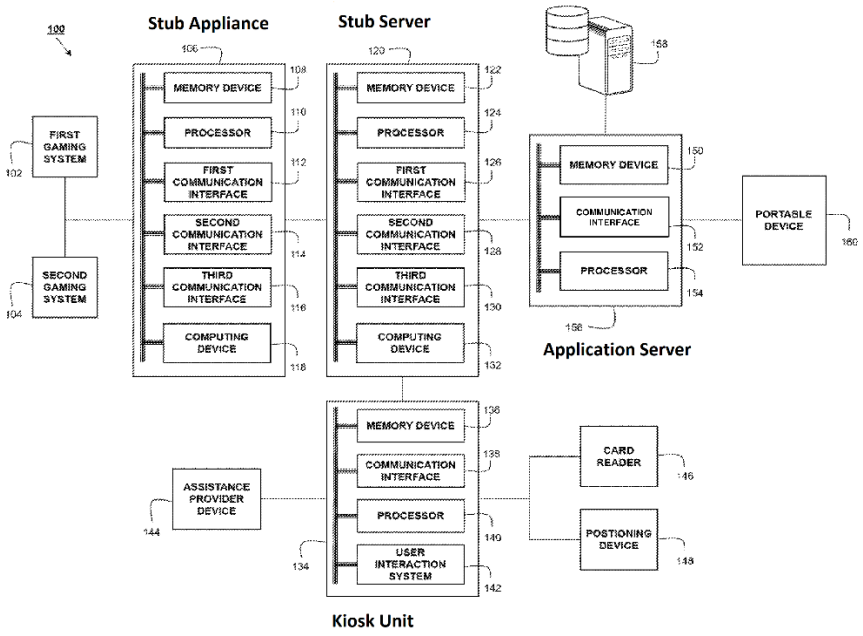
8 Skeleton arguments were helpfully provided by the attorney in advance of the hearing.

9 The only matter which falls to be decided is whether or not the invention is excluded under Section 1(2) as being a method for doing business and/or a program for a computer as such.

Subject matter

10 The application relates to a system for identifying problem gamblers and controlling access of an identified problem gambler to a gaming system. If a user is identified as a problem gambler, then access to the gaming system is disabled.

11 The system is made up of a number of components connected together as illustrated in figure 1 of the application. An annotated copy of that figure is reproduced below showing the main components.



12 The stub appliance (106) is a computer connected to various gaming systems (102, 104). It is the stub appliance which controls whether or not a user has access to those gaming systems.

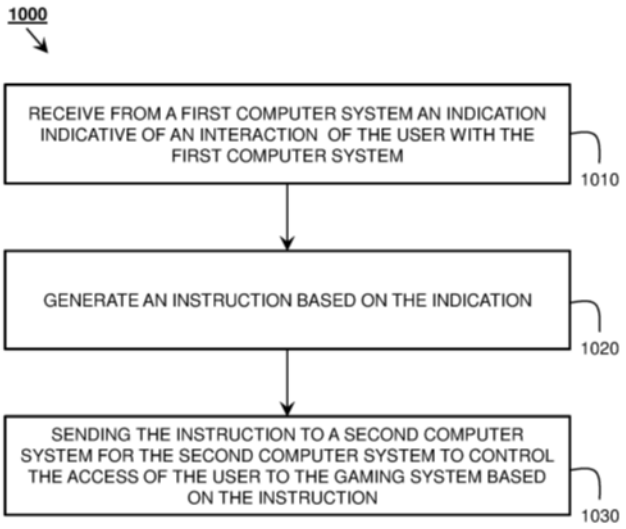
13 The kiosk unit (134) is the device which the user interacts with in order to access the gaming systems.

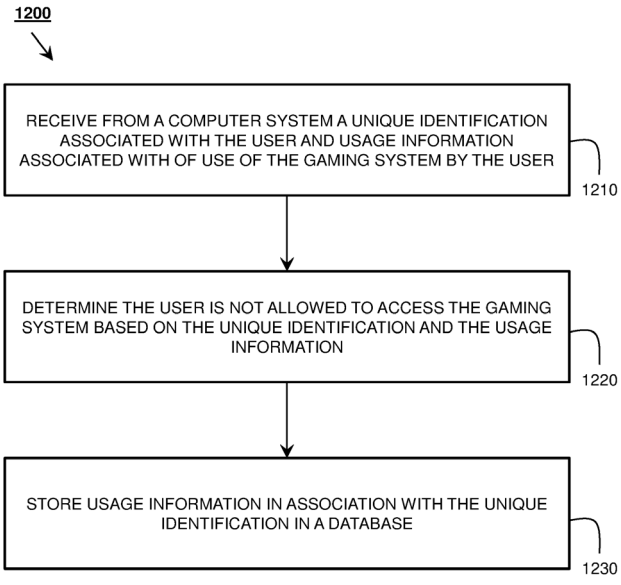
14 The application server (156) is the computer which carries out the analysis of the user's gambling habits to determine if the user is a problem gambler. A database server (158) is provided which stores relevant data.

15 The stub server (120) acts to connect the other parts of the system together and to send and receive data and instructions between them.

16 The stub server also determines a unique identification for the user so that the user's identity can be transmitted between the stub server and the application server without disclosing any personally-identifiable identity information, i.e. it provides some degree of anonymisation.

17 The main process steps of the stub server (1000) and application server (1200) are illustrated by the flowcharts of figures 10 and 12 respectively (reproduced below).





The law

18 The examiner raised an objection under Section 1(2) of the Act that the invention is not patentable because it relates to one or more categories of excluded matter. 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.*

19 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.*

20 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.

21 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

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[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)

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.*

Applicant's arguments

22 The main basis of the applicant's arguments, both in the skeleton arguments and at the hearing, was that the IPO approach based on UK case law is inconsistent with the European Patent Office (EPO) approach and that, in order to give effect to Section 130(7) (regarding the equivalence of UK law with the European Patent Convention (EPC)), I should adopt the EPO approach, or at least refuse to endorse the examiner's view that the application was excluded under Section 1(2) of the Act as a program for a computer as such.

23 The attorney referred in particular to the decision of the EPO Board of Appeal in *Duns Licensing* (T0154/04), and the comments made by the Court of Appeal about this decision in *Symbian*. At paragraphs 9 to 13 of *Symbian*, the Court of Appeal considered whether *Duns Licensing* was consistent with the decision in *Aerotel*. I note that the conclusion reached in Symbian was that there was "*no necessary inconsistency between the two decisions*".

24 Nevertheless, I acknowledge the attorney's point that, as discussed further below, the EPO and IPO would potentially refuse computer program applications under different parts of the EPC (or the UK equivalent). So, whilst the EPO might refuse such applications as lacking inventive step (Article 56 EPC), the IPO would refuse them as being a program for a computer (Article 52(2)(c) EPC). This may be regarded as a prima facie inconsistency between the treatment of applications and the effects of Section 1(2)(c) of the Act and Article 52(2)(c), which, according to Section 130(7) of the Act *"are so framed as to have, as nearly as practicable, the same effects"*, although the eventual outcome – the overall validity of the patent application – would be the same.

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[4] *HTC v Apple* [2013] EWCA Civ 451

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

25 Particular reference was made to section 5(g) of *Duns Licensing,* although the context of 5(f) is important for understanding the limitation of 5(g):

> *(f) It is legitimate to have a mix of technical and "non-technical" features appearing in a claim, in which the non-technical features may even form a dominating part of the claimed subject matter. Novelty and inventive step, however, can be based only on technical features, which thus have to be clearly defined in the claim. Non-technical features, to the extent that they do not interact with the technical subject matter of the claim for solving a technical problem, i.e. non-technical features "as such", do not provide a technical contribution to the prior art and are thus ignored in assessing novelty and inventive step.*
>
> *(g) For the purpose of the problem-and-solution approach, the problem must be a technical problem which the skilled person in the particular technical field might be asked to solve at the relevant priority date. The technical problem may be formulated using an aim to be achieved in a non-technical field, and which is thus not part of the technical contribution provided by the invention to the prior art. This may be done in particular to define a constraint that has to be met (even if the aim stems from an a posteriori knowledge of the invention).*

26 The attorney highlighted the sentence *"The technical problem may be formulated using an aim to be achieved in a non-technical field, and which is thus not part of the technical contribution provided by the invention to the prior art.".*

27 In their skeleton arguments, the attorney also refers to other decisions of the EPO Boards of Appeal (BoA) as follows:

> *10.1 T641/00-Comvik – where it stated that non-technical features cannot contribute to the assessment of inventive step, noting that Comvik is the foil to the sword (or vice versa) for assessment of exclusion; and (more relevantly)*
>
> *10.2 T1769/10 where it was stated that "In the problem-solution-approach, the objective technical problem to be solved is formulated based on the technical effect caused by the distinguishing features of the claim over the prior art, and thus depends on the individual case. This is also the case for inventions involving aspects in the non-technical field. Accordingly, depending on the available prior art and what is claimed, the objective technical problem to be solved may be formulated generally as to implement technically (the constraints as imposed by) the aim to be achieved in the non-technical field. In the case where some general form of implementation of the aim to be achieved in the non-technical field is already known from the prior art, the objective technical problem to be solved may be formulated more specifically as how to implement technically the aim in the non-technical field, or, reworded, to provide a technical solution involving technical means how to achieve the aim in the non-technical field" [section 4.2, final paragraph].*

28 As I understand it, the EPO treat the computer program exclusion itself narrowly, such that, so long as the claim includes reference to a system comprising hardware or a computer implemented method, the exclusion does not apply as it cannot be

said to be a program for a computer *as such*. I.e. the inclusion of hardware aspects removes it from the exclusion.

29 However, that is not the sole hurdle to overcome. Computer implemented inventions must also satisfy the inventive step requirement. This is of course assessed by the EPO using the problem-solution approach and the relevant prior art. The problem-solution approach involves determining the objective technical problem, then considering whether or not the solution to that problem is obvious in light of the teaching of the closest prior art. The comments made by the attorney regarding the BoA decisions are relevant to this assessment. The sentence from *Comvik* quoted by the attorney accords with my general understanding of the EPO approach (the *Comvik* approach) which is set out in the EPO Guidelines for Examination (G VII 5.4) as follows:

> *The steps below outline the application of the problem-solution approach to mixed-type inventions following the COMVIK approach:*
>
> *(i) The features which contribute to the technical character of the invention are determined on the basis of the technical effects achieved in the context of the invention (see G-II, 3.1 to 3.7).*
>
> *(ii) A suitable starting point in the prior art is selected as the closest prior art with a focus on the features contributing to the technical character of the invention identified in step (i) (see G-VII, 5.1).*
>
> *(iii) The differences from the closest prior art are identified. The technical effect(s) of these differences, in the context of the claim as a whole, is(are) determined in order to identify from these differences the features which make a technical contribution and those which do not.*
>
> *(a) If there are no differences (not even a non-technical difference), an objection under Art. 54 is raised.*
>
> *(b) If the differences do not make any technical contribution, an objection under Art. 56 is raised. The reasoning for the objection is that the subject-matter of a claim cannot be inventive if there is no technical contribution to the prior art.*
>
> *(c) If the differences include features making a technical contribution, the following applies:*
>
> *– The objective technical problem is formulated on the basis of the technical effect(s) achieved by these features. In addition, if the differences include features making no technical contribution, these features, or any non-technical effect achieved by the invention, may be used in the formulation of the objective technical problem as part of what is "given" to the skilled person, in particular as a constraint that has to be met (see G-VII, 5.4.1).*

– *If the claimed technical solution to the objective technical problem is obvious to the person skilled in the art, an objection under Art. 56 is raised.*

30 It will be noted under steps (iii)(b) and (iii)(c) that the assessment includes the step of identifying if there is a technical contribution. If there is such a technical contribution then non-technical features, as referred to in *Dun's Licensing* and *T1769/10*, may be included in the formulation of the objective technical problem. However, the inclusion of these features does not override the principal in *Comvik*. As stated in the subsequent section of the EPO Guidelines (see G-VII, 5.4.1)(my emphasis):

> *In other words, the formulation of the objective technical problem may refer to features which do not make a technical contribution, or to any non-technical effect achieved by the invention, as a given framework within which the technical problem is posed, for example in the form of a requirements specification provided to the person skilled in a technical field.* ***The aim of formulating the technical problem according to these principles is to ensure that inventive step is acknowledged only on the basis of features which contribute to the technical character of the invention.***

31 Although the EPO and the UK IPO approaches differ, they essentially involve the same steps but applied in a different order. So, determining the contribution referred to in *Aerotel*, at the second step, involves an assessment of the inventiveness of the claims; *"what has the inventor really added to human knowledge[?]".* This corresponds with the final step of the EPO approach. Indeed, *Symbian* recognises (paragraph 15):

> *The order in which stages are dealt with is different, but that should affect neither the applicable principles nor the outcome in any particular case.*

32 Whilst the EPO approach may not have led to this application being identified as a program for a computer *as such*, that does not mean it would have successfully overcome the inventive step hurdle based on the EPO *problem-solution* assessment following *Comvik*. It is perhaps distracting that the EPO and IPO should use a different legal basis for refusing applications in this area, and that may strictly be considered an inconsistency, but the purpose and principles involved are largely similar and the outcomes should be generally the same.

33 Ultimately, whatever the attractions of the EPO approach, the court in *Symbian* decided that approach should not be followed, primarily on the basis that EPO case law did not appear to be sufficiently settled, and there had not been a decision of the Enlarged Board of Appeal on the issue. At paragraph 46 of *Symbian* Lord Neuberger says:

> *46. The fact that there are now three such decisions of the Board subsequent to Aerotel which appear to support the approach disapproved in Aerotel might suggest that this court should now adopt that approach. We do not agree. First, there is no decision of the Enlarged Board. Not only does that mean that the view of the Board is not as authoritative as it could be; it also suggests that the Board does not consider that the time has arrived for the point to be conclusively determined. Secondly, the approaches in the four decisions*

since Aerotel are not identical: in particular, one of them appears more consistent with the view preferred in Aerotel. Thirdly, we are concerned that, particularly if the passage quoted from FUJITSU LTD/File search method represents the Board's view, the computer program exclusion may have lost all meaning. Fourthly, it is not as if the English courts are alone in their concern about the approach of the Board, as the observations from the German judiciary quoted in para.30, and referred to in [129] to [131] of Aerotel, demonstrate. Fifthly, if this court is seen to depart too readily from its previous, carefully considered, approach, it would risk throwing the law into disarray.

34 Having understood and carefully considered the arguments outlined above, it is clear that I am obliged to follow the approach laid down in *Aerotel* as approved by *Symbian* until such time as a higher court instructs otherwise.

35 At the hearing the attorney was mainly content to rely on these arguments. However, I was also directed to their previous written responses in reply to the examination reports for further submissions.

Application of the *Aerotel* approach

Step (1): Properly construe the claim

36 The latest claims are those filed on 30 March 2023, following the examiner's second examination report.

37 There are a number of independent and semi-independent claims. Claim 1 defines a stub server for controlling access of a user to a gaming system, and claim 7 a corresponding method. Claim 4 defines an application server for determining that a user is not allowed to access a gaming system and comprising a communication interface configured to connect to a stub server of claims 1 to 3. Claim 10 defines a corresponding computer implemented method.

38 Claims 1 and 4 read as follows:

1. A stub server for controlling access of a user to a gaming system, the stub server comprising:

a memory device configured to store machine-readable instructions;

a processor connected to the memory device;

a first communication interface connected to the processor and configured to connect to a stub appliance, the stub appliance being connected to the gaming system;

a second communication interface connected to the processor and configured to connect to a kiosk unit, the kiosk unit being configured to interact with the user;

a third communication interface configured to connect to an application server;

wherein the processor obtains the machine-readable instructions from the memory device and is configured by the machine-readable instructions to:

receive, via the second communication interface, an indication indicative of an interaction of the user with the kiosk unit system;

generate an instruction based on the indication;

send, via the first communication interface, the instruction to the stub appliance for the stub appliance to control the access of the user to the gaming system based on the instruction;

receive, from the stub appliance via the first communication interface, identity information associated with the user, usage information of the gaming system associated with use of the gaming system by the user;

determine a unique identification that represents the identity information associated with the user to substitute for the identity information of the user without disclosing the identification information;

and send, via the third communication interface, the unique identification, and the usage information to the application server to determine if the user if a problem gambler.

4. An application server for determining a user is not allowed to access a gaming system, comprising:

a memory device configured to store machine-readable instructions;

a processor connected to the memory device;

a communication interface connected to the processor and configured to connect to a stub server of claims 1 to 3; and

wherein the processor obtains the machine-readable instructions from the memory device and is configured by the machine-readable instructions to:

receive, via the communication interface from the stub server, a unique identification associated with the user and usage information associated with of use of the gaming system by the user;

determine the user is not allowed to access the gaming system based on the unique identification and the usage information; and

store the usage information in association with the unique identification in a database.

39 The particular feature associated with all the independent claims is the use of *a unique identification associated with the user.* Whilst this could be something like a credit/debit card number, or National Insurance or social security number, it is clear

from the description that it is intended to be a unique code to maintain privacy of the user, and I consider that the skilled person would construe it accordingly. Paragraphs [0091] and [0092] describe it as follows (my emphasis):

> *[91] … Further, the processor 124 is configured to determine a unique identification that represents the identity information associated with the user based on the identity information.* ***The unique identification serves as a substitute for actual identity details of the user without disclosing the identity details of the user, for example, the name of the user. In this manner, the usage information and the identity information may be de-identified and hence privacy of the user is safeguarded.***
>
> *[92] In one embodiment of the invention, the processor 124 of the stub server 120 is configured to determine the unique identification by performing a hash operation on the identity information. In another embodiment, the processor 124 is configured to determine the unique identification by generating a public key and a private key based on the identity information and determining the unique identification based on the public key. Further, the processor 124 is configured to send, via the third communication interface 130, the unique identification and the usage information to the application server 156…*

40 The claims are considered to be otherwise straightforward to construe.

41 Claim 1 may be summarised as a stub server with first, second and third communication interfaces for connection to a stub appliance, which connects in turn to a gaming system, a kiosk unit, with which a user interacts, and an application server respectively. The stub server receives indications of interactions of the user with the kiosk unit, sends instructions to the stub appliance for controlling access to the gaming system, receives from the stub appliance identity and usage information associated with the user, determines a unique identification for the user and sends the unique identification and the usage information to the application server to determine if the user is a problem gambler. Claim 7 relates to the corresponding method.

42 Claim 4 is directed to the application server which requires, alongside standard computer components, that it can receive from the stub server the unique identification and the usage information associated with the user, determine if the user is allowed to use the gaming system and store the unique identification and usage information in a database. Claim 10 defines the corresponding method carried out by the application server.

Step (2): Identify the actual or alleged contribution

43 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."*

44 The problem to be solved by the current invention relates to the minimisation of harm caused by gambling addiction. The invention aims to address this problem by retrieving the identification and usage information of a user, and determining whether that user is allowed to access a gaming system based on that identification and usage information. Furthermore, the invention addresses privacy concerns that may arise due to the sharing of this information across computer systems and its subsequent storage in a database by creating a unique identification that represents the identity information associated with the user. This unique identification and the corresponding usage information is sent to the application server for a determination of whether or not the user is a problem gambler. The information is also stored in a database. This method thereby advantageously allows for appropriate action to be taken, such as denying a user access to a gaming system, in response to a determination that the user is problem gambler, without sharing or storing identifiable information.

45 It should be noted that none of the claims explicitly include the step of actually controlling, i.e. permitting or preventing, access to the gaming system. At most, the claimed inventions only determine whether or not access is to be denied. In addition to the usual constraints on the interpretation of *suitable* for [6], then, the claims are construed as suitable for but not essentially including *actually controlling* access.

46 My assessment of the contribution of the claims is accordingly:

> *"A computer implemented means for controlling access of a user to a gaming system, comprising receiving identity information associated with the user and usage information of the gaming system by the user, determining a unique identification representing the identity information of the user and sending the unique identification and associated usage information to an application server to determine whether the user is a problem gambler and, if so, to deny access to the gaming system, whereby the unique identification allows for information to be sent to the application server and stored at the application server without exposing the identity of the user.*

47 Given the inter-relationship between the independent claims, albeit that claims 1 and 4 are nominally directed to different parts of the system, I consider that this single contribution is reflective of each of the independent claims when put into effect.

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

48 The third and fourth steps of the *Aerotel* test involve considering whether the contribution falls solely within one or more 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.

49 Although the invention is implemented using a computer program running on a network of computers, that does not mean that it should immediately be excluded as

[6] Manual of Patent Practice at sections 14.118 & 14.119

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.

50 The contribution of this application is considered to address problems which are substantially commercial or regulatory in nature, including regulations relating to privacy. Determining whether access for problem gamblers to gaming platforms should be restricted is considered to be an administrative task and therefore purely of a business nature. Similarly, the use of a unique identification to maintain the privacy of a user is also considered to be administrative or regulatory in nature. There is not considered to be anything technical in ascribing a unique identification, using unspecified conventional means, to replace traceable identity information. While the proposed invention may well represent a *better* business method, this is immaterial if the contribution is wholly excluded, as Fox LJ made clear in *Merrill Lynch's Application*[7] [1989] RPC 561:

> *The fact that the method of doing business may be an improvement on previous methods of doing business does not seem to me to be material. The prohibition in section 1(2)(c) is generic; qualitative considerations do not enter into the matter.*

51 Furthermore, the use of a computer to implement a better business method does not confer patentability. This was confirmed by Judge Birss at paragraph 35 of *Halliburton Energy Services*[8]*.*

> *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 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.*

52 So far then, in summary, the determination of whether a user is a problem gambler, is an endeavour within the field of business, because there is no apparent technical character to the determination itself, or the outcome. It is an administrative step. The same applies to the determination of a unique substitute identification. It is simply a step of representing a user's identity using an unspecified technique to generate an alternative identification.

53 Nonetheless, a business method could be implemented by a computer which itself provides a technical contribution, so I will consider whether the computer system, severs and methods claimed, give rise to a technical effect when in operation. In order to do so I will consider the *AT&T* signposts.

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[7] *Merrill Lynch's Application* [1989] RPC 561.
[8] *Halliburton Energy Services Inc* [2011] EWHC 2508 (Pat).

54 No argument has been made in respect of signposts (ii), (iii), or (iv); the so-called *better computer* signposts. I agree that these signposts are not relevant in determining whether or not there is a technical contribution in this case. I consider it self-evident that there is no change at the architectural level of the system and the system is not made to operate in a new way. Nor is it more efficient or effective. The hardware and its operation is configured according to the particular arrangements of devices described and claimed, which concerns their components and connections. Their operation in accordance with the claimed invention is conventionally effected under programmatic control. There is no suggestion that the servers or components themselves, their architecture or operating systems are unconventional. Therefore, I need only consider the first and fifth signposts.

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

55 I consider that the computer, for the purposes of assessing this signpost, is the combination of the gaming systems, stub server, stub appliance, kiosk unit and application server. This is consistent with the comments of Birrs J in *Lantana*[9]*.* The invention in *Lantana* related to a method for sending files from a remote computer to a local computer, in which the files are requested by sending an email including instructions for which files are required. The remote computer replies to the email with the requested files. This invention was found to be excluded (and this decision was upheld on appeal). At paragraph 30-31 Birrs J stated:

> *30. I start by noting that this invention consists entirely of software running on a conventional computing arrangement. I use the term "computing arrangement" rather than computer because the applicant is at pains to point out that this system requires two computers connected by a "telecommunications network". So it does but at the relevant date (2008) two computers connected across the internet was an entirely conventional computing arrangement. The fact that two computers and the internet are required is not what makes a software invention patentable.*
>
> *31. The invention here is therefore in the tricky territory I identified in Halliburton (paragraph 37) because everything is going on inside the computer, or rather inside the computing arrangement. Thus the first signpost cannot assist the applicant.*

56 Accordingly, the various computers of the invention are considered to define a single *computing arrangement* and any effects on the gaming systems do not represent effects carried on outside the computer as specified by the first signpost. In common with the decision in *Lantana*, the first signpost does not assist the applicant.

57 Paragraphs 32 and 33 of the *Lantana* judgement are also considered relevant to the patentability of the current application. These paragraphs read as follows:

> *32. I will consider the four effects relied on. The first one is no more than the fact that the invention involves communication between two computers over the internet. This cannot help. At the priority date in 2008 (as today) this was*

[9] *Lantana Ltd v Comptroller-General* [2013] EWHC 2673 (Pat) – upheld on appeal.

entirely conventional and cannot form part of anything contributed by the invention. The same goes for the third effect, that files or information are transferred from one computer to another over a telecommunications network.

33. The second effect is that one computer remotely controls another. I do not accept this as a fair characterisation of what is going on. If one computer really was exercising control over another in some way that might be a genuine technical contribution but all that is happening here is one computer is sending an email message to another. That is not control at all. The first email message includes machine readable instructions directed to the remote computer. But this is not something these inventors have contributed to the art at all. Conventional examples of emails which include code which can be executed by the computer receiving the message were mentioned at the hearing. An example can be found in figure 5 of one of the cited prior art documents (US Application 2006/0059129 A1). Mr Beresford submitted that this conflicted with the acceptance by the examiner that the claim was novel and non-obvious. I do not agree. Those matters apply to the claim as a whole, that is to say the entire combination of features. The point here is a different one, i.e. that the idea of an email message containing machine readable instructions as a contribution to the art in this case is wrong. The computers in the claim are not operating in a new way and the third signpost does not assist the applicant.

58 Minimisation of harm to an individual might conceivably be considered as an effect outside the computer, but the first *AT&T* signpost requires a *technical* effect. I do not consider that the minimisation of harm is a *technical* effect. As discussed above, in preventing access to a gaming system it is an administrative endeavour. Similarly, maintaining privacy of the user could be considered an effect an outside the computer, but it is not a *technical* effect.

59 If there is an effect outside the computer then I consider such an effect also lies in an excluded field such that it cannot be characterised as technical.

60 I do not consider there is any technical effect outside *the computer* that would satisfy this signpost. This signpost does not therefore point to the invention being patentable.

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

61 In order to meet the fifth signpost the problem must be a technical problem. An invention which overcomes such a technical problem is considered to have a technical character derived from the technical nature of the problem (per Birss J in *Lantana*).

62 The problem in this case is considered to be minimising harm to problem gamblers, by controlling their access to a gaming system whilst maintaining their privacy. As discussed above when considering the business method exclusion, this problem seems to me to be wholly an administrative issue. Whilst the invention solves this problem, it does not derive any technical character from it because it is not a technical problem.

63 There is not considered to be any technical problem which the invention overcomes and this signpost is therefore of no assistance to the applicant.

64 As well as considering the arguments raised in the hearing and in the skeleton arguments, I have also considered all the other arguments raised by the applicant in pursuance of the application.

65 The attorney has argued that the system is technically and functionally different. For example, at paragraphs 6.3 and 6.4 of their letter of 30 March 2023 they argue:

> *6.3 In this respect, the Applicant asserts that the amended claims are related to an overall system with technical benefit, with the system itself being technically new in both component configuration and interactive functionality. The invention brings about an overall technical advantage which has, to date, been overlooked based on a misapplication of the guideline tests rather than reference to the statutory requirements in the language of section 1(2) of the Act.*
>
> *6.4 The invention, whichever way one cuts it, produces an operationally different system which identifies characteristics of identity protected users to support, ultimately, a limiting system-wide functional change that affects all relevantly identified end users. The operational changes, whilst brought about by permissible software-implemented functions, affect the hardware of the gaming system viewed from the perspectives of the front end gaming machine right through the intermediate stub server and into the application server. To disregard a system-wide change that squarely places the claimed invention away from the exclusions "as such" is, it is respectfully submitted, a fallacy and disingenuous application of the law …*

66 The risk of accepting this argument at face value is to over-emphasise the effect of what is ultimately software governing the behaviour of hardware.

67 For example, there was clearly something novel in the interaction between the computers in *Lantana* given that it was found to be novel and inventive. Although the use of email is specifically identified as a conventional technique, the same, it seems, must apply to the conventional network communication between the components of the present invention. I agree with the argument that there is a new interaction between the components, but there was also a new interaction between the computers of *Lantana*. The decisive point in *Lantana* is that there was no technical effect in that interaction – no technical contribution. The same is true here.

68 Although the attorney referred to the system as being "technically and functionally different", this seems to have been based on the "technical" nature of the components as hardware devices. They have not pointed to any changes to the technical specification or hardware capabilities or hence any true technical contribution. For this reason, I disagree that the manner of interaction is different in a relevant sense; it is not, it is technically conventional, even if the data communicated and the program controlling it is specific to and defines the invention.

69 I consider that the components are interconnected in a network arrangement which uses conventional connections, communications and protocols. It is a conventional

arrangement. Novelty may indeed be conferred by the software running on the different components which provides for new forms of procedural interaction between the components, but this does not necessarily indicate an underlying technical effect. Although the end user may perceive an operationally different system, this is as a result of the software. Access to the gaming system is simply administratively blocked by the software for problem gamblers. I cannot see that there is any technical contribution.

70 I also note an argument raised in the attorney's letter of 6 January 2023, in which the attorney refers to the subject matter of then claim 7 (subsequently deleted) which reads:

> *7. The kiosk unit as claimed in claim 4, wherein the processor is further configured to*
>
> *send a message to a device associated with an assistance provider to alert the assistance provider, the message including the identity information representing the identity of the user.*

71 Albeit that this messaging feature no longer forms part of the claims, it is a function associated with the kiosk unit and I have considered below whether or not it could form the basis for an allowable amendment to overcome the exclusions. The attorney equated the alert message of this claim with the alert notification sent to a mobile device in the system of *Protecting Kids the World Over (PKTWO)*[10].

72 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 application on the basis that there was a technical effect relating to the generation of the message at the remote terminal. The judge said at paragraph 34 of the decision:

> *I am unable to accept these submissions. I start with the proposition that the generation and transmission of an alert notification to the user/administrator is not a relevant technical process. I accept that in many cases this may be correct. Plainly it was correct in the case of two out of the three patents considered by Mann J in Gemstar, where information was simply displayed on a screen. But what is in play in the present case, namely an alarm alerting the user, at a remote terminal such as a mobile device, to the fact that inappropriate content is being processed within the computer, is in my judgement qualitatively different. First of all, the concept, although relating to the content of electronic communications, is undoubtedly a physical one rather than an abstract one. In that respect it was more akin to the third of the three patents considered by Mann J in Gemstar. 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.*

73 Although there are a number of similarities between the alert message of this application and that of *PKTWO*, I do not consider that the alert message in this

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

application meets the criteria for it to provide a technical effect that takes the application outside the computer program exclusions.

74 I start by noting that in *PKTWO* the judge identified that "*in many cases the generation and transmission of an alert notification is not a relevant technical process."* Accordingly, something more than the simple generation and transmission of an alarm or notification is required.

75 In *PKTWO* the judge went on to say that "*an alarm alerting the user, at a remote terminal such as a mobile device, to the fact that inappropriate content is being processed within the computer, is in my judgement qualitatively different*." In *PKTWO* the system was monitoring content on a live real-time basis and issued an alarm as soon as it detected that inappropriate content was being processed. That seems quite different to the system of the current application where the alert is issued when it detects that a problem gambler has attempted to access a gaming terminal. Essentially, what is being communicated is merely the "problem" status of a gambler. Significantly, the assessment of whether or not they are a problem gambler is not necessarily being made live. The assessment would typically have been made previously and the application server merely reports to the other parts of the system the result of that previous assessment. I consider this to be a qualitatively different assessment to that being carried out in *PKTWO* and accordingly I do not consider that the corresponding alarm is sufficiently technical.

76 This alert message feature does not therefore provide a technical effect to save the application from the exclusions of S.1(2).

77 Since I can find no technical effect in the contribution of the claims, the invention is considered to be nothing more than a program and for a computer a method for doing business method. Accordingly, it falls within the exclusions of Section 1(2)(c) of the Act and is excluded from patentability.

Conclusion

78 Since the invention fails to comply with Section 1(2)(c), the application is refused under Section 18 of the Act.

Appeal

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

Ben Buchanan

Deputy Director, acting for the Comptroller