



## PATENTS ACT 1977

APPLICANT                      Mastercard International Incorporated

ISSUE                              Whether patent application GB1418140.8 complies  
with section 1(2) of the Patents Act 1977

HEARING OFFICER                      J Pullen

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### DECISION

#### Introduction

- 1 Patent application GB1418140.8, entitled 'Method and system for displaying product information on a consumer device', entered the national phase 14 October 2014, derived from WO2013/158288 A1, with 18 April 2012 as its priority date. It was published as GB 2515234 A on 17 December 2014.
- 2 The examiner, Dr Thomas Martin, raised in the first examination report, dated 8 June 2018, an objection to the invention as being excluded under section 1(2) of the Patents Act 1977 ("the Act") as a method of doing business and a program for a computer as such. There have been several rounds of correspondence between the examiner and the applicant's attorney, Dr Tom Burt, without agreement being reached as to a form of claims which would overcome this objection.
- 3 A hearing was offered, and the matter came before me on 17 July 2019 at which the applicant was represented by their attorney, who participated via telephone. The examiner also attended. The only issue to be decided is whether the invention is excluded as a method of doing business and a program for a computer as such.
- 4 I note that the examiner has deferred updating the search. If I find the claims to be allowable it will be necessary to remit the application to the examiner for update of the search and completion of the examination.
- 5 I further note that the period for putting the application in order for grant expired prior to the hearing. At the time of writing the decision there was no request for an extension to the compliance period on file.

#### The invention

- 6 The invention relates to means for displaying, on a consumer device, information which relates to a product which is featured in digital media and is available for

purchase in order to facilitate and expedite the transaction process without detracting from the digital media.

At the hearing Dr Burt gave an example of how the invention might be used. There might be movie being displayed on a phone or smart television which illustrates or shows certain products, the user might then click on a product on their phone and be linked to initiate the transaction process. He summarised how the invention works to accomplish this; a receiving device receives an index of the product, with locations in the digital media for that product and product identification numbers, it detects , that the digital media includes a product that is available for purchase, it receives a product data set from a product database, the product data set including data to initiate transactions, an indication from the user is received to identify the selected product, and the system then receives the data to display the product details.

- 7 Dr Burt said that the invention “is a way to link occurrences of products being shown in digital media with product details that you want to display.” He acknowledged that the invention is in the context of the purchase of products, but he stated that the invention itself is the means whereby the correct details may be extracted from a data set for display on the basis of an indication from a user.
- 8 There are four independent claims: method claims 1 and 25, device claim 27 and system claim 51.

*Claim 1*

*A method for displaying product information on a consumer device, comprising:  
preparing for display, by a display of the consumer device, digital media illustrating at least one product available for purchase;  
receiving, by a receiving device, an index of the product or products, wherein the index includes, for the or each product, at least a display location of that product in the digital media and a product identification number corresponding to that product;  
detecting, by a processing device, that the digital media includes an indication that the product or products may be available for purchase based on the received index;  
receiving, from a product database, at least one product data set, wherein the or each product data set includes at least a product identifier corresponding to the or one of the products, and product details, the product details including information to at least initiate a transaction for the product;  
receiving an indication from a user identifying a selected product of the product or products based at least on the display location in the digital media of the selected product;  
retrieving, from the received product data set or sets, product details associated with the selected product based on the product identification number associated with the selected product and the product identifier associated with the product details; and  
displaying, by the display, the retrieved product details.*

*Claim 25*

*A method for distributing digital media to a consumer device, comprising:*

storing, in a database, a digital media;  
identifying, in a product index, at least one product available for purchase that appears in the digital media, wherein the product index includes, for the or each product, at least a display location of the product in the digital media and a product identification number corresponding to the product;  
associating, by a processor, the product index with the digital media;  
and  
transmitting, to the consumer device, the digital media and the associated product index for display on the consumer device, wherein the consumer device is configured to:  
display, by a display of the consumer device, the digital media,  
detect, by a processing device of the consumer device, the product index associated with the digital media,  
receive an indication from a user identifying a selected product of the product or products based on at least the display location of the selected product,  
determine the product identification number associated with the selected product based on the display location of the selected product identified by the indication from the user,  
retrieve, from a previously received product data set or sets, product details associated with the selected product based on at least the product identification number associated with the selected product, wherein the product details includes information to at least initiate a transaction for the product, and  
display, by the display of the consumer device, the retrieved product details.

*Claim 27*

*A consumer device, comprising:*  
*a display configured to display digital media;*  
*a receiver configured to receive, from a product database, at least one product data set, wherein the or each product data set includes at least a product identifier corresponding to a product available for purchase and product details, wherein the product details includes at least information to initiate a transaction for the product; and*  
*a processor configured to*  
*detect whether the digital media includes an indication that at least one product appearing in the digital media may be available for purchase,*  
*identify an index of the product or products that appear in the digital media, wherein the index includes, for the or each product, at least a display location of the product in the digital media, and a product identification number corresponding to the product,*  
*receive an indication from a user identifying a selected product of the product or products based on the display location of the selected product,*  
*determine the product identification number associated with the selected product based on the display location of the selected product identified by the indication from the user,*  
*identify, in the received product data set or sets, product details associated with the selected product based on at least the product identification number associated with the selected product and the product identifier associated with the product details, and*

cause the display to display the identified product details.

*Claim 51*

*A system for distributing digital media to a consumer device, comprising:*

*a database configured to store a digital media;*

*a processor configured to*

*identify, in a product index, at least one product available for purchase that appears in the digital media, wherein the product index includes, for the or each product, at least a display location of the product in the digital media and a product identification number corresponding to the product, and*

*associate the product index with the digital media; and*

*a transmitter configured to transmit, to the consumer device, the digital media and the associated product index for display on the consumer device, wherein*

*the consumer device is configured to*

*display, by a display of the consumer device the digital media,*

*detect, by a processing device of the consumer device, the*

*product index associated with the digital media,*

*receive an indication from a user identifying a selected product*

*of the product or products based on the display location of the selected product,*

*determine the product identification number associated with the*

*selected product based on the display location of the selected product*

*identified by the indication from the user,*

*retrieve, from a previously received product data set or sets,*

*product details associated with the selected product based on at least the*

*product identification number associated with the selected product, wherein*

*the product details includes information to at least initiate a transaction for the corresponding product, and*

*display, by the display of the consumer device, the retrieved product details.*

- 9 In his skeleton arguments of 10 July 2019 Dr Burt said that these claims “all involve essentially the same underlying invention and steps”, and I agree there is unity of invention. At the hearing there was agreement that the claims should stand or fall together.

**The law**

- 10 The examiner objected that the invention is excluded from being patented as a method for doing business and program for a computer as such. The relevant section of the Act is S.1(2), the most relevant provisions of which (with my emphasis added) are:

*Section 1(2)*

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

*(a) ...;*

*(b) ...;*

(c) **a... method for... doing business, or a program for a computer;**

(d) ...;

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

11 Whether or not an invention falls within these excluded categories is assessed on the basis of the four-step approach set out by the Court of Appeal in *Aerotel/Macrossan*<sup>1</sup>. The steps are:

(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.*

12 Subsequently, the Court of Appeal in *Symbian*<sup>2</sup> 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>.

13 In determining whether or not a program for a computer makes a relevant technical contribution which takes it beyond being "a program for a computer... as such" it is helpful to consider the five "signposts" first set out in *AT&T/CVON*<sup>5</sup>, and later reformulated in *HTC*<sup>6</sup>. 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;*

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<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd & Ors Rev 1* [2007] RPC 7

<sup>2</sup> *Symbian Ltd's Application* [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

<sup>5</sup> *AT&T Knowledge Ventures/Cvon Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

<sup>6</sup> *HTC v Apple* [2013] EWCA Civ 451

*v. whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*

## **Assessment**

14 In his skeleton arguments, filed on 10 July 2019, Dr Burt stated:

*The present hearing concerns a single issue, namely whether the claimed invention comprises solely subject matter that is excluded from patentability under section 1(2) Patents Act 1977. In particular, the Examiner's position as set out in his letter of 21 May 2019 is that the claimed invention is excluded as merely a method for doing business and a program for a computer "as such".*

*It is submitted that this is incorrect, and that the invention is not merely a method for doing business and / or a program for a computer as such. Rather, it is submitted that the invention makes the required technical contribution, and so is not excluded from patentability.*

15 At the hearing Dr Burt emphasised that the invention is not "solely" a method for doing business, and not "solely" a program for a computer, and not those things "as such". He said that, at its core, the invention addresses the problem of how to extract data from a data set based on indications from a user. He also emphasised the technical character of the problem, and of the invention which provides the solution.

16 Dr Burt stated that the question is whether the invention falls "solely" in the excluded subject matter. He said, that is what the "as such" means. And he noted, and I agree, that a patent may be granted for a computer program if it does something technical.

### (1) Properly construe the claim

17 I do not think that there is any difficulty in construing the claims.

### (2) Identify the actual or alleged contribution

18 In paragraph 43 of *Aerotel*, it is made clear that identifying the contribution is probably best summed up as determining the problem to be solved, how the invention works and what its advantages are; essentially, what the inventor has really added to human knowledge, looking at the substance and not the form of the claim. 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.

19 In his pre-hearing report of 31 May 2019 the examiner noted that, as the search is not yet complete, it is the alleged contribution which is to be identified. He believes the alleged contribution to be:

*Improving the display of product information on a consumer device, in particular by displaying products available for purchase, and the initiation of a transaction for the product.*

20 Dr Burt commented on the difficulty of determining what is the contribution without prior art to establish a basis. But he argued that the contribution identified by the examiner is too narrow, and that it focuses on the result achieved by the invention,

ignoring the essential technical means by which it is achieved. In the skeleton arguments he suggested that the contribution is more reasonably characterised as:

*An improved method/system for retrieving and displaying product details relating to a product that is available for purchase, when a user selects the product when it is displayed in digital media, in particular using an index that allows the display of the product in the digital media to be linked to the product details stored in a product database.*

- 21 Dr Burt emphasised the problem addressed by prior art: how to find the product details in the data base, and how to link to them, from the user's selection. He said that prior art consumer devices could not do this; but the invention provides the solution. And he said that that is what the inventor has "added to the stock of human knowledge" (quoting *Aerotel*).
- 22 I take a slightly different view to the problem being addressed, that being how to engage and maintain consumers in a retail experience without detracting from the digital media environment. What Dr Burt has proposed above is what the invention does to provide a solution to this problem and which overcomes the prior art limitations.
- 23 I agree with Dr Burt that the invention is more than a display and I am happy to adopt the alleged contribution proposed by him.

3) Ask whether it falls solely within the excluded subject matter and (4) Check whether the actual or alleged contribution is actually technical in nature

- 24 I will consider steps (3) and (4) together.
- 25 Dr Burt emphasised that the question here is whether the contribution "falls solely within the excluded subject matter".
- 26 He agreed that there is no argument that the invention is implemented as a computer program. He acknowledged that the present invention might be argued to comprise a business method implemented on a computer, but he maintained that it is more than that, that the implementation involving the indexing steps means that there is more to it.
- 27 At the hearing Dr Burt helpfully outlined the similarities and differences between the present invention and its contribution and that identified in other case law. He discussed the inventions of *Macrossan* (in *Aerotel/Macrossan*) and *Merrill Lynch*<sup>7</sup>, noting that the former related to an automated method of obtaining company formation documents, and the latter to an automated method of trading securities. Both of these, he said, were the mere implementation on a computer of a business method; whereas, he argued, whilst the present invention also involves implementing a method of doing business on a computer there is more to it than just that. I do not see the facts of these cases in such a simplistic way.
- 28 Dr Burt also addressed earlier Office decisions which had been cited by the examiner: BL O/120/11 Q *Software Global Limited* and BL O/386/12 *JDA Software Group, Inc.*. He argued that each of these related to a different sort of invention to the present

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<sup>7</sup> *Merrill Lynch's Application* [1989] RPC 561

invention, and failed for reasons which cannot be applied to the present invention. He also noted that these decisions were prior to *HTC*, when the *AT&T/CVON* signpost four related only to speed or reliability, rather than effectiveness and efficiency.

- 29 Dr Burt also drew my attention to a more recent decision, BL O/748/18 *Suunto OY*. He noted that although the Hearing Officer had found that the wrist-top computer of that invention did not work in a new way as regards its internal components, that he found that it did work in a new way as regards allowing users greater flexibility. On that basis he found it to be a better wrist-top computer with improved functionality, and to work more effectively as a wrist-top computer. The Hearing Officer concluded that these factors provided a technical effect and took the invention outside the field of a computer program as such, and therefore that it was not excluded.
- 30 Dr Burt drew an analogy with the present invention, in that it provides a new functionality which makes things better for the user. I can see that. However, any computer program may provide new functionality but that, in itself, does not automatically take it outside the exclusion.
- 31 Dr Burt argued that the invention is not just the functionality which is provided, but the way in which it is provided. He argued that whilst the invention is in the context of business methods, it is independent of business methods. However, BL O/748/18 did not consider the business method exclusion and as far as the computer program exclusion is concerned, the facts of the cases are very different.
- 32 On the face of it this application is nothing more than a business process and that is not considered to be technical in nature.
- 33 I note here the guidance in paragraph 35 of *Halliburton*<sup>8</sup> (my emphasis added):

*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. 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 L.J. pointed out in relation to 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.*

- 34 Dr Burt discussed the *AT&T/CVON* signposts, noting that they are “useful but not determinative”. He suggested that the first and the fourth were the most relevant signposts, though he also commented briefly on the fifth. For completeness I shall consider the signposts in turn:

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<sup>8</sup> *Halliburton Energy Services Inc's Patent Application* [2011] EWHC 2508 (Pat)



(i) Whether the claimed technical effect has a technical effect on a process which is carried on outside the computer

- 35 Dr Burt argued that the invention provides a “new real-world functionality”, that it performs a task outside of the computer. He identified the task as enabling a user to see something, in that it displays product details on the basis of an indication received from the user when that product is displayed.
- 36 I am not convinced. While the display is to be viewed by a user who is evidently outside of the computer, that cannot in itself be considered a ‘process’ carried on outside the computer. What the user does with the displayed information outside the computer is essentially a retail process and cannot be considered technical. Any steps in the contribution which relate to new functionality happen entirely within the computer system.

(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 and (iii) Whether the claimed technical effect results in the computer being made to operate in a new way

- 37 Dr Burt did not suggest that that the alleged contribution meets these signposts. After brief consideration I also cannot see a way that it would.

(iv) Whether the program makes the computer a better computer in the sense of running more efficiently and effectively as a computer

- 38 Dr Burt placed the greatest weight on this signpost. He argued that the invention enables the computer (the consumer device) to perform a task which it would not otherwise be able to do. He argued that although the present invention does not change the way in which the consumer device works, it does provide additional functionality. He said that it operates more effectively, in that it can do a task it could not otherwise do.
- 39 I am not persuaded by this line of argument. The purpose of any new computer program is to provide some level of additional functionality, there is no automatic technical contribution in that.
- 40 Dr Burt went on to argue that the invention does provide a technical contribution. He said that it is not just a “clever way” of doing another excluded thing (*i.e.* a method for doing business). He said that the contribution lies in how the data is handled in the background, which means that the computer is working more effectively as a computer.
- 41 Dr Burt said that the invention is about looking up data to perform a task, although it happens to be in a business method environment. He argued that the invention could have been defined in relation to other things. That may or may not be the case, but I cannot overlook the simple fact that it was not.
- 42 While the retrieval and display of product data is provided as a new program, this program is run by a conventional computer system in a conventional way and does

not make the computer a better computer in the sense of it running more efficiently and effectively as a computer. I do not believe the fourth sign post is met.

(v) Whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented

- 43 Dr Burt stated, in relation to the fifth signpost, that the problem was clearly overcome, not circumvented. He characterised the problem as being how to display the details, specifically how to enable the correct details to be looked up; and he argued that the invention allows the correct details to be looked up.
- 44 In my view the problem is a retail problem and not a technical problem. Therefore signpost 5 is not met.
- 45 I cannot find any technical contribution provided by the alleged contribution. It is my view that the subject matter claimed is not patentable as it is a method for doing business and a computer program as such.

**Conclusion**

- 46 The application does not comply with section 1(2) as it relates to a method for doing business and a program for a computer. I therefore refuse the application under section 18(3).

**Appeal**

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

**J. PULLEN**  
**Deputy Director, acting for the Comptroller**