



PATENTS ACT 1977

APPLICANT VICTORY SOFTWARE LIMITED

ISSUE Whether application GB 2111938.3 complies with
 section 1(2)(c) of the Patents Act 1977

HEARING OFFICER Peter Mason

DECISION

Introduction

- 1 This decision concerns application GB 2111938.3, published as GB 2595395 A on 24th November 2021. The application is entitled “An Online Communication System” and the decision concerns whether the invention, as defined by the claims, is excluded from patentability under Section 1(2)(c) of the Patents Act 1977.
- 2 The application is the GB national phase of international application PCT/NZ2020/050001 which has an earliest priority date of 21 January 2019. The application was originally published under the PCT as WO2020/153854 on 30th July 2020. There have been several rounds of correspondence, but the applicant has thus far been unable to persuade the examiner of the patentability of the claims.
- 3 In the prehearing report of 20th June 2023, the examiner invited the applicant to request a hearing to settle the issue. The UK Attorneys, Hargreaves Elsworth, representing the applicant, Victory Software Ltd, responded with their final submissions dated 14th August 2023 and the application was forwarded for a decision by a hearing officer to be issued on the papers on file. I will therefore make a decision based on the papers presently available on file. I am assisted in this matter by Dr Graham Feeney.

Preliminary matters

- 4 The only substantive matter before me is whether the invention is excluded from patentability under section 1(2)(c) of the Patents Act 1977, specifically as a method for doing business and as a program for a computer. I note however that the search is incomplete and all other matters, including novelty and inventive step, have been deferred. Therefore, if I find that the claimed invention is allowable, I will remit the application to the examiner to update the search and complete the examination.

5 The now extended section 20 date expired on 21 September 2023.

The invention

6 Whilst I note that the invention is expressed in terms of an online transaction system, not necessarily being a sale, I have used the terms 'vendor' and 'buyer' as a shorthand for the respective system subscribers that offer or seek items in the transaction.

7 The invention "*relates to improvements in respect of systems for online transactions, such as a system for online transactions between subscribers offering items and subscribers seeking items*". Potential buyers are able to search a database of items for sale to which a vendor has added their goods. As a result of that search, a communication link is established between the vendor and one or more potential buyers. During the process the vendor can then confirm that an item that was placed for sale remains available (for instance is hasn't already been sold) and the communications link allows a prospective buyer to, for example, express an interest in buying an item and to make a bid or offer on an item. Subsequent searches by further prospective buyers are restricted to those items validated by the vendor.

8 There are ten claims as amended on 30 May 2023, comprising independent claim 1 which defines a process for an online transaction and independent claim 7 which more broadly defines an online transaction system seemingly suitable for the method of claim 1.

The claims

9 Claim 1 reads as follows (I have additionally numbered the steps of the process for ease of reading):

A process carried out by an online system to provide a communication link between subscriber accounts to allow the accounts to make transactions for items, the process comprising the steps of:

- i. receiving from an offering subscriber account item data carrying information on attributes of an item offered for transaction;*
- ii. running a first database query using a first string generated dependent on said item data, wherein the first database query is run on a database which stores instances of search data carrying information on attributes of a respective item sought for transaction by other subscriber accounts,*
- iii. transmitting the results of the first database query at the offering subscriber account to allow an operator of the offering subscriber account to view any instances of search data returned by the first data base query;*
- iv. initiating a communication link between the offering subscriber account having entered item data used to generate the first database query and a seeking subscriber account having provided search data returned by the first database query;*

- v. *receiving a control input from the offering subscriber account indicating that the item data received from the first subscriber account is validated in response to an operator viewing displayed results of the first database query to allow an operator of the offering subscriber account to validate the item data;*
- vi. *storing said item data with an indication of validation as an instance of validated item data;*
- vii. *running a second database query on a database which stores instances of validated item data, the second database query using a second string generated dependent on search data received from a second seeking subscriber account; and*
- viii. *transmitting the item data returned by the second database query for display via the second seeking subscriber account, receiving a control input from the second seeking subscriber account indicating that the search data received from the second seeking subscriber account is validated,*

wherein (i) the step of storing item data with an indication of validity is subsequent to said initiation of communication between said offering subscriber account said seeking subscriber account having provided search data returned by the first database query, and wherein (ii) an indication of validation for item data is an indication that the item data is valid for use in the second database query run dependent on search data received from the second seeking subscriber account.

- 10 Claim 7 reads as follows (I have similiary numbered the features of the system to assist reading):

An online system operable to provide a communication link between subscriber accounts to make transactions for items:

- i. *the system operable to receive from a first subscriber account item data carrying information on attributes of an item;*
- ii. *the system operable to store item data carrying information on attributes on given items; and*
- iii. *the system operable to receive from a second subscriber account search data carrying information on attributes of items sought, and*
- iv. *the system further operable to run database queries dependent on the search data received to identify and return a list of items dependent on said attributes; and*
- v. *the system operable to transmit for display at the first subscriber account transaction-communication data carrying information to be communicated from the second subscriber account to the first subscriber account,*

the system further operable

- a. *to store search data subsequent to running a database query dependent on the search data, identifying a list of items returned by the database query,*
- b. *to transmitting [sic] for display the items returned by the database query, and*
- c. *to receiving control input from a subscriber linked to the search data indicating that the search data is valid so as to provide search data stored with a status of valid.*

The law

- 11 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 with added emphasis below:

1(2) It is hereby declared that the following (amongst other things) are not inventions for the purpose of the Act, that is to say, anything which consists of

(a)

(b)

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

(d)

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

- 12 The binding precedent for the assessment of patentability under Section 1(2) was set down by 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.

- 13 The Court of Appeal in *Symbian* made it clear 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

¹ *Aerotel Ltd v Telco Holdings Ltd and Macrossan’s Application* [2006] EWCA Civ 1371; [2007] RPC 7

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

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 step 4.

14 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*³ which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v Apple*⁴, Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. The revised 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 make the computer a better computer in the sense of running more efficiently and effectively as a computer; and
- v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

15 In contrast, the exclusion relating to a method for doing business, the business method exclusion is much more general. For instance in *Merrill Lynch's Application*⁵, *Fox LJ* rejected a claim to a computerised system for making a trading market:

“The prohibition in section 1(2)(c) is generic; qualitative considerations do not enter into the matter. The section draws no distinction between the method by which the mode of doing business is achieved. If what is produced in the end is itself an item excluded from patentability by section 1(2), the matter can go no further.”

16 In *Halliburton*⁶, the patentability of computer implemented methods of doing business was considered in detail. In particular, the inherent ‘technical’ character of computers was considered. As explained by Birss HHJ:

‘Inventions of that kind are held not to be patentable but it is important to see why. They are more than just a computer program as such. For example, they self evidently perform a task which has real world consequences. As Fox L.J. said in Merrill Lynch (p.569 at line 27), a data processing system operating to produce a novel technical result would normally be patentable. However that is not the end of the analysis. He continued: “however it cannot be patentable if the result itself is a

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

⁴ *HTC v Apple* [2013] EWCA Civ 451

⁵ *Merrill Lynch's Application* [1989] RPC 561

⁶ *Halliburton Energy Services Inc's Applications* [2012] RPC 129

prohibited item” (i.e. a method of doing business). When the result or task is itself a prohibited item, the application fails.

- 17 At paragraph 35 of Halliburton, Birss HH went on to note that the use of a computer to implement a better business method did not confer patentability:

“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.”

- 18 The correct test for patentability under section 1(2) of the Act has not been disputed. Both the examiner and the applicant have accepted the five AT&T signposts. In their submissions, the applicant has further relied upon the binding precedent set by High Court in PKTWO⁷, which discusses the Halliburton judgment referred to above. The applicant further relies upon the persuasive, but not binding, Comptroller’s decision BL O/018/22⁸, which will be discussed in my analysis below.

Applying the Aerotel test

Step 1 - Properly construe the claim

- 19 There has been no contention in regard to how the examiner has construed the claims, though, with one notable exception, neither the examiner nor the applicant have sought to offer any particular construction beyond the ordinary meaning of the words used. Taking claim 7 first because this claim is of significantly broader scope, noting the agreement of the examiner and Attorney, I construe the claim as follows:

An online system operable to provide a communication link between buyers and vendors to make transactions for items, the system operable:

to receive and store searchable information about an item for sale from a vendor;

to receive from a first prospective buyer search information about an item sought and to store and return search results in response;

transmit to the vendor transactional information (e.g. a suggested price) from the prospective buyer to the vendor;

to receive a “control input” from prospective buyers and the vendor linked to a particular search item to indicate that the search item is valid so as to provide stored search data stored with a “valid” status.

⁷ Protecting Kids the World Over (PKTWO) Ltd’s Patent Application [2012] RPC 13

⁸ BL O/018/22 Unanimous A.I. Inc; <https://www.ipo.gov.uk/p-challenge-decision-results/o01822.pdf>

20 I have noted that, in the Attorney's letter dated 14 August 2023, a certain reliance appears to be made upon the term 'control input', with the assertion that this feature is somehow technical in nature. With reference to figure 2 (see appendix), the control input is an input to controls 18 or 24 termed 'post' in the figure and constitutes an indication respectively from a vendor or buyer of continued interest in conducting a transaction. Having carefully read the application as filed, the 'control input' is most readily described as being the action of respective subscribers (buyer or vendor) to provide a software input (which I assume to be a mouse click or a short text entry) to the system in order to communicate with the other party in order to confirm that a particular item is sought or is offered, the inputs of the respective vendor inevitably following the transmittal of the buyer's search to the vendor and possibly being followed by a second 'control input' response(s) from prospective buyer(s).

21 I construe claim 1 as follows:

A method carried out by an online system to provide a communication link between a vendor and one or more buyers to facilitate the transactions of items, the process comprising the steps (in strict temporal order) of:

a vendor adds items for sale to a database;

a first prospective buyer conducts a search for desired goods, which is subsequently stored on the database;

the first search results are transmitting to the vendor;

a communication link between the vendor and the first prospective buyer is initiated;

[if appropriate] the vendor makes a "control input" to validate the item for sale (e.g. confirm the item is still available);

item data with an indication of validation is stored to a database;

a second prospective buyer conducts a second search for desired goods which is restricted to the subset of items that have been validated by the vendor following the search conducted by the first prospective buyer.

The second search results (on validated data) are transmitted to the second prospective buyer;

the second prospective buyer further validates an item for sale identified in the second search.

22 I think that, at least insofar as the Aerotel test goes, the pertinent points to note are that the claims defines a computer implemented system and method for conducting an online, and thus remote transaction, between two individuals and that the method involves steps for search, search results validation, communication and subsequent further searches refined to a subset of data defined by the earlier validation process.

Step 2 – Identify the actual contribution

- 23 In paragraphs 43 and 44 of Aerotel, Jacob LJ outlined some factors to consider when identifying the contribution made by the claims:

The second step – identify the contribution – is said to be more problematical. How do you assess the contribution? Mr Birss submits the test is workable – it 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 – which is surely what the legislator intended.

- 24 Paragraph 44 goes on to state that, at application stage, the contribution may be taken to be that alleged by the inventor, although this cannot be conclusive; as Jacob LJ states, “[i]n the end the test must be what contribution has actually been made, not what the inventor says he has made”.

- 25 In his letter dated 14 August 2023, the Attorney has asserted that the actual contribution provided by the system of claim 7 “is a new mechanism for input to controlling of a computer system”. Specifically this applies to the “control input” to validate to pertinent items-for-sale and items-wanted data thus allowing the initiation of interactions between remotely located buyers and vendors. The Attorney states that this is ‘implicitly a selection of search data’, though no mention whatsoever is made of a second search step, only of providing ‘*search data stored with a status of valid*’.

- 26 In his assessment of the actual contribution, the examiner sets out in some detail the features that he considers to be conventional in an online transaction system, which may be best described as those features found in a commonplace and well-known online auction: a searchable database of items for sale accessible by simultaneously by multiple prospective buyers and communication links between a prospective buyer and the vendor. Consistent with the Attorney’s view, the examiner identifies that the particular challenges with online transaction systems are in the provision of sufficient computing resources to store data, to support searches by multiple subscribers through items stored, and in supporting communications between multiple potential buyers and vendors.

- 27 I assess that the actual contribution of the invention of claim 7 is as follows:

An online system operable to provide a communication link between buyers and vendors to make transactions for items whereby items for sale listed by the vendor may be searched by a prospective buyer, characterised in that the system can:

store information about the search and transmit it to the vendor to enable a communication link to be established between the buyer and vendor and

receive a “control input”, a confirmation, from prospective buyers and/or the vendor that indicates continued interest in conducting the transaction.

Provide, for further processing, search data marked as valid.

- 28 Whilst system claim 7 is consistent with provision of means to perform the method of claim 1, the method claim further requires that the validation of data items is utilised

to restrict the extent of subsequent database searches. This aspect of claim 1 has the benefit that at least some of the database searches will involve smaller volumes of higher quality data (in that the item for sale is acknowledged as available and, possibly, desired). I assess that the actual contribution of the invention of claim 1 is as follows:

An online method for providing a communication link between buyers and vendors to make transactions for items whereby items for sale listed by the vendor may be searched by a prospective buyer, characterised in that the method involves steps to:

store information about the search and transmit it to the vendor to enable a communication link to be established between the buyer and vendor;

receive a “control input”, a confirmation, from prospective buyers and/or the vendor that indicates continued interest in conducting the transaction;

enable subsequent searches to be restricted only to validated items for sale.

Steps 3 and 4 - Ask whether it falls solely within the excluded matter and check whether the actual or alleged contribution is actually technical.

- 29 The third and fourth steps of the Aerotel test involve considering whether the contribution falls solely within excluded categories, that is 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.

Method of doing business

- 30 The applicant's submissions centre around argument that the contribution is that the method and system improve communications between buyers and the vendor, reduce data volumes in subsequent searches and provide a new method for control derived from the control input made by multiple users. I note that the examiner has acknowledged the improved efficiency and control of a computer system as referred to by the Attorney. However even if I were to accept the Attorney's argument that the inventions of claims 1 and 7 have an effect, an improvement, on a process which is carried on outside the computer, it seems that this effect is exclusively realised solely as a better way of doing business. As Fox LJ teaches in *Merrill Lynch*⁹:

“The section draws no distinction between the method by which the mode of doing business is achieved. If what is produced in the end is itself an item excluded from patentability by section 1(2), the matter can go no further.”

- 31 The ruling of Birss HHJ in *Halliburton*¹⁰ at paragraph 33 is consistent with this view:

‘If the task the system performs itself falls within the excluded matter and there is no more to it, then the invention is not patentable’.

⁹ Merrill Lynch's Application [1089] RPC 561

¹⁰ Halliburton Energy Services Inc's Applications [2012] RPC 129

- 32 It is clear to me that the invention as described and claimed is a business method, the matter can go no further.

Program for a computer

- 33 Although I have found that the application is a business method, I will for completeness further consider the application as a program for a computer. Although the contribution is clearly implemented using a computer program running on a network of computers, that does not mean that it should immediately be excluded as a computer program as such. In *Symbian*, the Court of Appeal stated that a computer program may not be excluded if it makes a technical contribution. In order to determine if the contribution is technical in nature, I have considered the AT&T signposts as set out in paragraph 12 above. Signposts (ii)-(iv) are not relevant to the present invention because the conventional computer network upon which the program runs is not changed; these signposts are clearly not satisfied.

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

- 34 The Attorney has argued that the contribution of the invention as defined by both claims 1 and 7 is technical in that it provides for a control mechanism for multiple remote operators, i.e. the control inputs. As was discussed under step (1) of the *Aerotel* test above, the control inputs refer simply to communications between buyer and vendor. The control inputs are not rendered technical by the remoteness of the subscribers because, as the examiner correctly pointed out in his pre-hearing report, the computer referred to includes an arrangement or network of computers, a view that was established in *Lantana*¹¹. The separate control inputs are not rendered technical by the fact that they may originate from multiple users. In their submissions, the attorney has referred me to a persuasive Comptroller's decision BL O/018/22 in which an invention to combine the collective intelligence of a group of individuals to collectively answer a question by providing a single shared answer was acknowledged to be patentable. I have compared the situation in that decision with the present invention and I am not persuaded by this line of reasoning because, in my view, the present invention may be readily distinguished because no collective answer is derived from the individual control inputs.

- 35 The attorney also argues that the contribution of the present invention has a '*clear analogy to the principle established by the PKTWO case*' wherein an alarm alert to a mobile phone was considered to concern a physical rather than abstract inventive concept. The attorney submits that the "*communication link*' of an '*online*' (*internet*) *process of the present invention and the 'transmission' of data over that link is a clear analogy to the alarm as an indication that the contribution does not lie solely within a computer program.*". I do not accept that the present invention has improved notification or communication outside of the computer within the meaning of that term as set down in *Lantana* (i.e. the computer network).

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

¹¹ *Lantana v Comptroller General of Patents* [2013] EWHC 2673 (Pat)

36 In Lantana, Birss J stated

“[i]t makes sense to think of something which is a solution to a technical problem as itself having technical character because it takes that character from the technical nature of the problem to be solved. But if a thing is not solving the technical problem but only circumventing it, then that thing cannot be said to have taken any technical character from the problem.”

37 In other words, an invention that provides a solution to a technical problem may receive some technical contribution from that solution, whilst an invention that merely circumvents a problem does not.

38 In his prehearing report, the examiner has helpfully summarised the problems addressed which were set out across pages 1 and 2 of the application as filed. He has categorised them as i) problems relating to the efficiency of the searching process and the computing resource burden thus placed upon the system, and (ii) in supporting communication between buyers/vendors throughout the process. I agree that the invention does not address these problems by improving the computer, but instead by circumventing them to reduce the actual computing resources required by administratively reducing the amount of data to be processed. Similarly, no technical problem has been addressed to support supporting the communication between buyers/vendors. I agree with the examiner that the overall problem to be solved is not technical in nature and that the fifth AT&T signpost does not assist the applicant’s argument.

39 Nothing in the analysis of the five AT&T signposts leads me to believe that the invention is anything other than an excluded program for a computer.

Conclusion

40 I find the invention claimed in GB 2111938.3 falls solely within matter excluded under Section 1(2) as a method for doing business and a program for a computer as such. I do not believe that there are any saving amendments to the application which would remedy this, and I therefore refuse the application under Section 18(3).

Appeal

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

PETER MASON

Deputy Director, acting for the Comptroller

Appendix

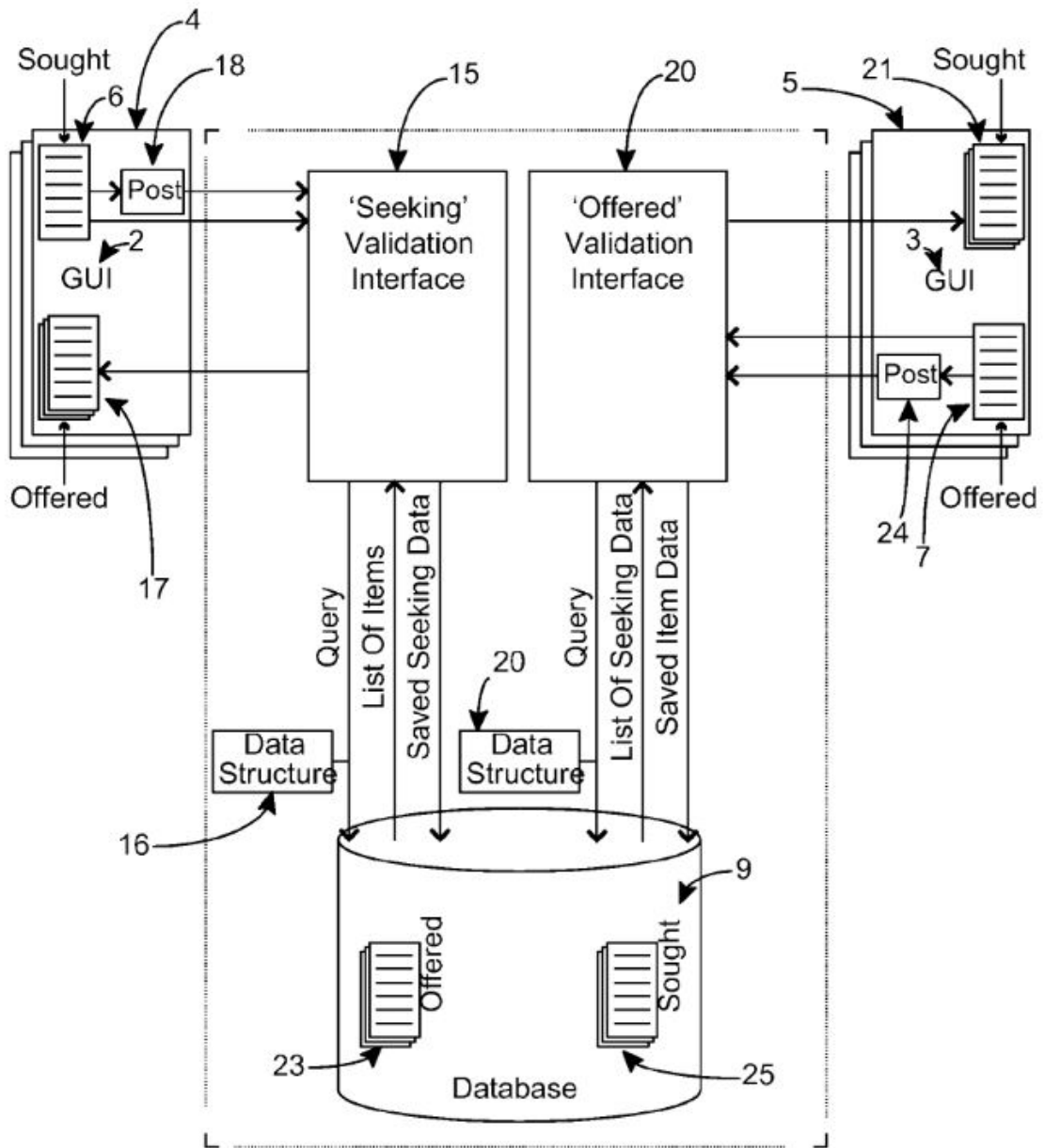


FIGURE 2