



## PATENTS ACT 1977

APPLICANT Innoplexus AG

ISSUE Whether GB1804935.3 complies with Section 1(2) of the Act.

HEARING OFFICER Stephen Brown

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### DECISION

#### Introduction

- 1 This decision covers GB1804935.3 which was published as GB 2572546A on 9<sup>th</sup> October 2019.

#### Examination History

- 2 The application was filed on 27<sup>th</sup> March 2018 with the applicant requesting Combined Search and Examination. In response the Examiner issued a Search report under Section 17(5)(b) stating that the “search would serve no useful purpose” accompanied by an Abbreviated Examination Report (AER) on 28<sup>th</sup> September 2018.
- 3 The AER set out an objection under Section 1(2)(c) that the application was considered to be a computer program as such. The applicant responded on 26<sup>th</sup> March 2020 respectfully disagreeing with the view of the Examiner. No amendment to the claims was filed.
- 4 In response, the examiner issued a further examination report on 3<sup>rd</sup> June 2021 reiterating the Section 1(2) objection and offering the applicant a hearing before a senior officer at the IPO.
- 5 The applicant responded on 3<sup>rd</sup> August 2021 stating that “the applicant did not wish to offer further amendments or arguments in reply to the Examiner’s communication”. Furthermore, they requested “a decision in the present case on the basis of the current status of the application and upon the basis of supporting arguments advanced in the prosecution so far” and waived the offer of a hearing at the IPO.

- 6 In response the Examiner issued a “pre hearing report” confirming that they noted the request for a hearing and setting out the main issue of the Section 1(2) objection. Given the applicant did not provide any further argument or amendment they attached a copy of their earlier examination report.
- 7 The matter has now come before me for a decision on the papers.

### **Section 101 – An observation**

- 8 I would first like to make an observation on the approach taken in the prosecution of this case and Section 101 of the Act.

- 9 Quite rightly, Section 101 expressly allows that:

*“Without prejudice to any rule of law, the comptroller shall give any party to a proceeding before him an opportunity of being heard before exercising adversely to that party any discretion vested in the comptroller by this Act or rules.”*

- 10 In this application, the applicant having requested a decision by a hearing officer has provided no further argument or any other information as to why they believe the comptroller has “adversely” exercised their discretion. The only response is that received in response to the original AER. No response has been made to the most recent examination report save the request for a decision.
- 11 The Manual of Patent Practice at Section 18(3) rightly affords the applicant great liberty with the form of amendments. It does, however, require that “a full response should be made to each and every objection raised in the examination report”.
- 12 This raises an important issue in my mind – Should the request for a decision, given they have not addressed the latest examination report, be considered an appropriate response?
- 13 In this application I believe it does, although I do not for one moment consider it a fully satisfactory one. Specifically, the Examiner has made the applicant an offer of a hearing. The applicant has accepted that offer and that is why this decision is being made.
- 14 I would not, in my opinion, have been so obliged had the applicant not been offered a hearing. In the absence of any response from the applicant I would have taken the view that it was not an appropriate amendment. If that had been the case, then this decision would be much shorter and would effectively have been a reissue of the Examiners last report refusing the application.

### **The Issue**

- 15 The issue is whether this application complies with Section 1(2) of the Act,

## The Law

- 16 The section of the Act concerning inventions excluded from patentability is Section 1(2), which reads:
- “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 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 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.**”
- 17 In order to decide whether an invention relates to subject matter excluded by Section 1(2), the Court of Appeal has said that the issue must be decided by answering the question of whether the invention reveals a technical contribution to the state of the art. The Court of Appeal in *Aerotel/Macrossan*<sup>1</sup> set out the following four-step approach to help decide the issue:
- 1) Properly construe the claim;
  - 2) Identify the actual (or alleged) 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.
- 18 The operation of the approach is explained at paragraphs 40-48 of the judgment. Paragraph 43 confirms that identification of the contribution is essentially a matter of determining what it is the inventor has really added to human knowledge, and involves looking at substance, not form. Paragraph 47 adds that a contribution which consists solely of excluded matter will not count as a technical contribution.
- 19 The case law on computer implemented inventions has been further elaborated in *AT&T/CVON*<sup>2</sup> which provided five helpful signposts to apply when considering whether a computer program makes a relevant technical contribution. In *HTC v*

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<sup>1</sup> *Aerotel Ltd v Telco Holdings Ltd (and others) and Macrossan's Application* [2006] EWCA Civ 1371

<sup>2</sup> *AT&T Knowledge Ventures LP and CVON Innovations Limited v Comptroller General of Patents* [2009] EWHC 343

*Apple*<sup>3</sup>, Lewison LJ reconsidered the fourth of these signposts and felt that it had been expressed too restrictively. 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 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.

## **The Application**

- 20 The current claims on the application are those originally filed on 27<sup>th</sup> March 2018. They have not been amended and comprise three independent claims, Claims 1, 11 and 21 to a system, method and Computer readable medium, respectively. Copies of these claims are reproduced at Annex A of this decision.
- 21 The invention concerns a process of providing structure to unstructured data received from a number of sources. Specifically, the data will at least comprise a entity name and a number of attributes associated with that entity. Page 13 of the specification gives an example where a police suspect is the entity name and information about them extracted from other sources are the attributes,
- 22 Put simply, the system takes this information and through a process of identifying similar attributes, using a pattern matching algorithm and probability scoring, combines the records to create a combined data record.

## **Analysis**

### ***Step 1 - Construe the claim***

- 23 Claims 1, 11 and 21 all relate to the same invention. Any construction therefore applies to them all mutatis mutandis.

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<sup>3</sup> HTC v Apple [2013] EWCA Civ 451

- 24 The applicants have offered little discussion of claim construction other than to state that they consider that the examiner has disregarded where the data comes from. They argue that because data comes from external devices, the system naturally has an effect on said external devices.
- 25 I am afraid that I disagree with this argument. The claimed invention is a system that receives data. In my opinion, the claims do not extend to the source the data is received from. Such sources are not a part of the claimed invention and it does not affect them. Taking the specification at face value, data could come from Facebook<sup>RTM</sup>, Twitter<sup>RTM</sup> or LinkedIn<sup>RTM</sup>. I do not believe for a moment that any method running in the applicant's system would have any meaningful effect, technical, or otherwise, on those sources.

### **Step 2 – Identify the Actual or alleged Contribution**

- 26 The applicant has claimed that their method of creating entity record solves the *“problems associated with the existing techniques of searching which require that ambiguous and duplicate data are searched costing time and power as well as leading to an increased wear and tear of the involved hardware and also of the external devices where duplicate and ambiguous data resides”*.
- 27 As reasoned above, I do not believe that the claimed invention, and thus its contribution, can have any effect on the external data sources. As to the remaining features the applicant refers to, this appears to be based on a single reference between lines 16-22 on page 2 of the specification. At no point does the specification or any argument from the attorney provide any details as to how these benefits are to be achieved.
- 28 The examiner arrived at a different contribution, namely:  
*“a method of creating entity records by grouping together data relating to similar entity attributes into buckets, clustering the buckets using pattern recognition, and combining data from within a cluster, depending upon a calculated prediction probability score, to create an entity record.”*
- 29 I believe that this is more in line with the Aerotel test and identifies “what has the inventor really added to human knowledge.” I thus adopt this contribution as the basis for this decision. I would only add that it is clearly, and implicitly, a computer implemented method.

### **Step 3 – Ask whether it falls solely within the excluded subject matter?**

- 30 There is no doubt that this is a computer program. Furthermore, it is a system that receives data, processes that data and ultimately organises it as an entity record. It is a computer program for processing data and that should be the end of my enquiry. However, as the attorney has provided observations on some of the signposts, I will give those arguments due consideration.

- 31 Firstly, the attorney argues that there is an effect on external systems. Again, I can see no such effect. The external systems merely provide data in an entirely conventional manner – they are otherwise unaffected and do not form part of the contribution in any case.
- 32 Next, they argue that the contribution reduces power consumption and wear and tear but without saying how this is achieved. In the absence of any information about the underlying computers this is at best unclear and at worse incorrect. I can see no evidence of the computer itself operating differently or more effectively.
- 33 The attorney also refers to the fourth signpost saying that the invention results in a better computer. They argue that because they have a different database structure with clever indexing this affects the computer as a whole. There is also a suggestion that as social media platforms do not need to be searched to the same extent there is a reduction in bandwidth.
- 34 Again, I can see no evidence of this. Page 9, lines 15-18, of the description makes it clear that the database system is a known computer program. I can see no effect on the underlying computer or on bandwidth. Any benefits or advantages are purely as a result of running a ‘better’ program within a known database. Thus, I do not believe that the contribution meets signpost 4.
- 35 They attorney also commented on signpost 5. In particular, they suggested that restructuring databases and collating data into smaller databases is a technical problem. It may well be a technical issue, but it is not a technical contribution beyond that of a program running on a standard computer. Accordingly, the contribution also does not meet signpost 5.
- 36 For completeness, I will briefly turn to the second signpost, even though the attorney has not referred to it. The second signpost asks whether the invention works at the architectural level of a computer irrespective of the data being processed. In this case it does not. It relies entirely on the data being processed as it must have an entity record with attributes.

### **Reference to the EPO**

- 37 Finally, the applicants argue that I should accept the view of the EPO in T844/07 and follow that. Whilst the decisions of the EPO are persuasive, I am bound to follow UK legal precedent, and that is clearly telling me that this is no more than a programme for a computer, as such.

### **Conclusion**

- 38 I have decided that the invention defined in the independent claims falls solely within matter excluded under Section 1(2) as a program for a computer as such. Having reviewed the application, I do not consider that any saving amendments are possible. I therefore refuse the application under section 18(3).

## **Appeal**

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

**Stephen Brown**

**Deputy Director acting for the Comptroller**

## **ANNEX A**

### **Claim 1**

A system that creates entity records, wherein the system includes a computer system that executes data processing tasks, characterized in that the system comprises:

- a database arrangement that is operable to store existing data sources; and
- a processing module that is communicably coupled to the database arrangement, the processing module being operable to:
  - receive unstructured data from the existing data sources;
  - structure the unstructured data to obtain data- records, wherein the data-records comprise entity names and entity attributes associated with entity names;
  - bucket data-records into one or more buckets based on similar entity attributes thereof;
  - create intermediate clusters comprising at least one of the one or more buckets bases on a pattern recognition algorithm;
  - calculate a prediction probability score associated with each of the data-records within the intermediate clusters; and
  - combine the data-records from the intermediate clusters to obtain an entity-record, wherein the combined data-records comprise a prediction probability score higher than a predefined threshold.

### **Claim 11**

A method of (for) creating entity records, wherein the method includes using a computer system to execute processing tasks, characterised in that the method comprises:

- receiving unstructured data from existing data sources;
- 
- structuring the unstructured data to obtain data-records,
- wherein the data-records comprise entity names and entity attributes associated with the entity names;
- bucketing data-records into one or more buckets based on similar entity attributes thereof;



- creating intermediate clusters comprising at least one of the one or more buckets based on a pattern recognition algorithm;
- calculating a prediction probability score associated with each of the data-records within the intermediate clusters; and
- combining the data-records from the intermediate clusters to obtain an entity-record, wherein the combined data-records comprise a prediction probability score higher than a predefined threshold.

### **Claim 21**

A computer readable medium containing program instructions for execution on a computer system, which when executed by a computer, cause the computer to perform method steps of a method of (for) creating entity records, wherein the method comprises:

- receiving unstructured data from existing data sources;
  - structuring the unstructured data to obtain data-records, wherein the data-records comprise entity names and entity attributes associated with the entity names;
  - bucketing data-records into one or more buckets based on similar entity attributes thereof;
  - creating intermediate clusters comprising at least one of the one or more buckets based on a pattern recognition algorithm;
- calculating a prediction probability score associated with each of the data-records within the intermediate clusters; and
- combining the data-records from the intermediate clusters to obtain an entity-record, wherein the combined data-records comprise a prediction probability score higher than a predefined threshold.