

PATENTS ACT 1977

APPLICANT Nielsen Consumer LLC

ISSUE Whether patent application GB2111711.4 is excluded under section 1(2)(c)

HEARING OFFICER H Jones

DECISION

Background

- 1 This decision relates to the issue of whether the application, GB2111711.4, meets the requirements of section 1(2)(c) of the Patents Act 1977 (“the Act”).
- 2 The examiner is of the opinion that the invention set out in the application is excluded as a method for doing business and/or a program for a computer as such, setting out his reasoning in considerable detail in his examination reports of 1 February and 27 September 2022 and in the appendix of his pre-hearing letter dated 28 March 2023. The examiner issued a report under section 17(5)(b) stating that a prior art search would not serve a useful purpose. The applicant amended the claims and provided arguments identifying the technical nature of the invention in an attempt to overcome the examiner’s objections, but ultimately failed to do so (attorney letters dated 12 August 2022 and 27 January 2023).
- 3 The applicant has declined the opportunity of being heard in person on the matter, so it has been referred to me for a decision off the papers.
- 4 The specification, including the amended claims, the objections raised by the examiner and the applicant’s arguments and observations can all be viewed at the IPO’s online file inspection service: [Intellectual Property Office - Patent document and information service \(Ipsum\) \(ipo.gov.uk\)](#)

The invention

- 5 The application relates to the field of market research and in particular to methods/systems for identifying market strategies that involve mining through large amounts of data, with an aim of reducing the time taken by human analysts performing the same task using traditional tools. The application has five independent claims numbered 1, 11, 21, 31 and 41. They are all computer-implemented and define broadly the same functional steps for adjusting a market strategy, but the hardware covered by each claim varies, which the examiner

addresses at paragraphs 4-13 of his letter dated 28 March 2023. There is no need for me to set out the claims here.

The law

- 6 A patent may be granted only for an invention which satisfies the conditions set out in section 1(1) of the Act. However, pursuant to section 1(2) of the Act, various exclusions to patentability are identified. Section 1(2) provides as follows:

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

- (a) a discovery, scientific theory or mathematical method;*
- (b) a literary, dramatic, musical or artistic work or any other aesthetic creation whatsoever;*
- (c) a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer;*
- (d) the presentation of information;*

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

- 7 Guidance on the interpretation of section 1(2) of the Act is to be found in the Court of Appeal's judgments in *Aerotel Ltd v Telco Holdings Ltd & Ors*¹ and *Symbian v Comptroller-General of Patents*², which set out a four-step approach for determining whether an invention is excluded, as set out below:

- 1) properly construe the claims;
- 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.

- 8 Paragraph 43 of *Aerotel* provides some guidance regarding the second step:

"43. 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.

- 9 According to paragraph 46 of *Aerotel*, applying the fourth step may not be necessary because the third step should have covered the question. This is because a contribution which consists solely of excluded matter will not count as being a "technical contribution" and thus will not, as the fourth step puts it, be "technical in nature".

¹ [2006] EWCA Civ 1371

² [2008] EWCA Civ 1066

10 Lewison LJ has provided five helpful signposts to technical contribution in *AT&T/CVON*³ and *HTC v Apple*⁴, which summarise where the courts have identified a technical contribution in computer-implemented inventions when the task carried out falls within an excluded category. These so-called “AT&T signposts” are as follows:

- 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; and
- v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.

11 There is no dispute concerning the relevant law and its application to the facts of this case.

Argument and analysis

Properly construe the claims

12 The examiner deals with the issue of claim construction at paragraphs 4-13 of his pre-hearing letter, focussing mainly on the wording of the amended claim 1 filed by the applicant on 27 January 2023 and the supporting arguments. Claim 1 is defined in terms of an apparatus claim, and it includes various elements such as “an action determiner”, “a target principle generator”, an “execution analyzer” and “a score generator”, which appear on their face to relate to elements of hardware dedicated to a particular task to be achieved. The applicant argues that this apparatus represents a new arrangement of hardware and so provides a technical contribution.

13 The examiner construes the apparatus as being either i) a server with storage and networking capabilities or ii) a server (with storage) communicating over the internet with a plurality of computers configured as databases. He adds that the server has a number of functional modules for carrying out the method steps of periodically pulling data, de-duplicating it, storing it in a data lake, and using it to recommend adjustments to a market strategy and ultimately to output an advertisement with an updated price for a product. He adds that the functional modules are programming features rather than hardware. Claims 11, 21, 31, 41 define a processor/server carrying out substantially the same functional steps.

14 I agree with the examiner’s assessment.

³ AT&T Knowledge Ventures LP, Re [2009] EWHC 343 (Pat)

⁴ HTC v Apple [2013] EWCA Civ 451

Identify the actual or alleged contribution

- 15 The examiner refers to paragraphs 3 and 24-26 of the description in his assessment of the contribution. These paragraphs describe how existing technologies for analysing market data involve mining through vast amounts of data and generating business intelligence (BI) reports/tools for manual review by an analyst. Traditional BI tools are said to be likely to miss, or otherwise fail to reveal, hidden insights in the reports. Further, the time taken by an analyst to use such tools is prohibitive. The invention aims to further automate the process by retrieving and analysing data with the help of a machine learning model to generate specific outputs related to adjusting a market strategy. The computer-implemented invention provides the advantages of time saving and the reduced need for a market analyst to provide an opinion.
- 16 The applicant identifies the contribution as “controlling market strategy adjustments by providing a purpose-built server in communication with a plurality of client databases over the internet, the server being configured to retrieve market data from each of the client databases on a periodic or scheduled basis, de-duplicate the data and store it in a data lake, use a machine learning model to provide recommended adjustments and generate suitable outputs including the recommended adjustments and release broadcasts.”
- 17 The examiner agrees with this, subject only to clarifying the meaning of “purpose-built” as being that the server is configured by way of its programming to carry out the claimed tasks. I consider that this clarification is justified and helpful.

Ask whether the contribution falls solely within excluded subject-matter and check whether the contribution is actually technical in nature

- 18 The task of controlling market strategy adjustments in general is a business activity and is excluded as being an invention under the Act. The business method is implemented on a computer system, the advantage of doing so being to save analyst time and to reduce the need for them to provide subjective input to the process. These advantages are not technical advantages. Furthermore, I agree with the examiner’s assessment of the invention with respect to the five signposts set out at paragraphs 27-33 of his pre-hearing letter. His overall conclusion that the invention is implemented by way of a program running on a conventional arrangement of computing hardware for transferring, storing and processing data, are routine activities performed by computer programs. These activities are excluded as being an invention under the Act unless they provide a technical effect, which is absent in this case.
- 19 I agree with the examiner that the contribution falls entirely within excluded matter and is not technical in nature.

Conclusion

- 20 This application is refused under section 18(3) on the basis that it does not relate to an invention for the purposes of the Act.

Appeal

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

Huw Jones

Deputy Director, acting for the Comptroller