Intellectual Property Office

BL O/0992/23

24 October 2023

PATENTS ACT 1977

APPLICANT	Framy Inc.
ISSUE	Whether patent application GB2118091.4 complies with the requirements of section 1(2) of the Patents Act 1977
HEARING OFFICER	Phil Thorpe

DECISION

1 Patent application GB2118091.4 was filed on 14th December 2021 in the name of Framy Inc., claiming a priority date of 18th March 2021 from TW application number 110109700. The application was published as GB 2604983 A on 21st September 2022.

2 Initially the examiner issued an abbreviated examination report on 1st June 2022 objecting that the invention claimed was excluded from patentability. They did not perform a search as they believed it would serve no useful purpose. It remains the case that no search has been performed, although subsequent correspondence from the examiner takes into account the results of searches performed by other patent offices.

3 The applicant filed amended claims and arguments on 16th September 2022 however these did not satisfy the examiner who maintained the excluded matter objection in a further examination report dated 13th December 2022. The letter accompanying that examination report invited the applicant to request a hearing, warning them that should they respond without requesting a hearing the examiner may pass their application to a Hearing Officer to come to a decision regarding the application based upon the papers on file.

4 Further amended claims and comments were filed on 3rd March 2023 however a hearing was not requested. Consequently, the examiner issued a further letter dated 24th July 2023 reiterating their objections and informing the applicant that the application has been passed to me to decide whether it should be refused.

Subject matter

5 The invention claimed in the application as amended relates to a method for recommending location based digital content. As the summary of the disclosure explains the method is adapted to a browser program for a social media. The system

recommends the location-based and/or personalized digital contents to a user through one or more hashtags displayed on the browser program. As shown in figure 2 below the hashtags may be transmitted to a user device 20 by a serving system 12 and the user device may be a portable smart device.

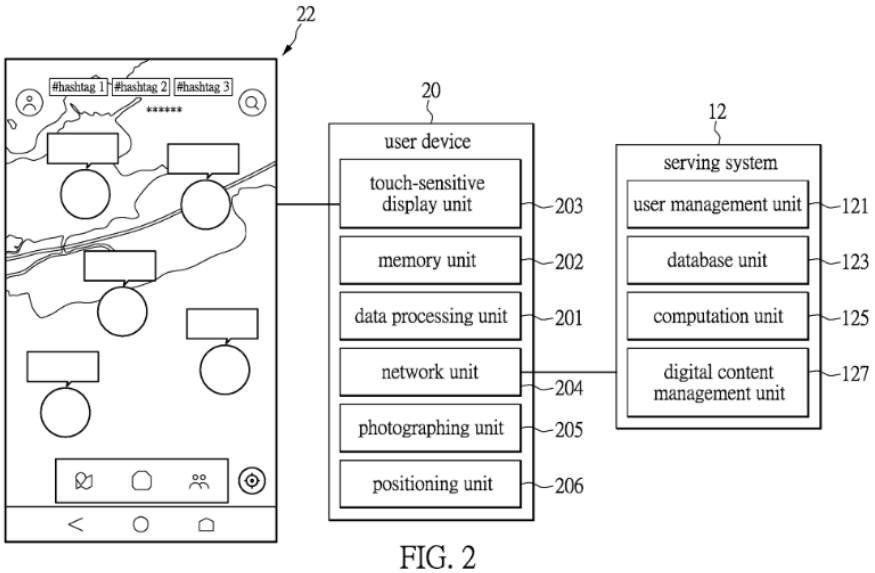

FIG. 2

6 The server can recommend the hashtags associated with a location range that is determined based on the location of the user or it can also provide one or more hashtags associated with areas not covered by the location range. For example, the serving system further recommends one or more hashtags to the user and allows the user to know more about the surrounding geographic range based on the user preference. That is, the serving system introduces the one or more hashtags from a larger area centered at a current location of the user. For example, when the user browses a geographic range that mostly includes the New York area, the serving system calculates the recommended hashtags from adjacent areas of the New York area, such as Philadelphia and Washington D.C., so that the hashtags to be recommended can cover a larger geographic range.

7 The latest claims were filed on 3rd March 2023. There are two independent claims, claim 1 and 8 directed to a method of recommending a location-based digital content and apparatus for implementing the method. I am satisfied that both claims stand or fall together. I will therefore focus on claim 1 which reads:

> A method for recommending a location-based digital content, operated in a serving system (12), comprising:
>
> > receiving position information generated by a browser program executed in a user device (20), wherein the browser program initiates a graphical user interface (22) that uses an electronic map as a background for browsing the digital content with the position information;
> >
> > determining a location range according to the position information, and obtaining one or more location-based digital contents by querying a database; and

providing one or more hashtags to the user device (20) and then displaying one or more links of the one or more hashtags on a user interface initiated by the browser program;

wherein the serving system (12) collects and learns from records generated when a user browses the digital contents by the browser program, continuously analyzes and learns new browsing records so as to create a location-based personalized preference model that describes personalized features, and provides the one or more hashtags that are location-based and personalized to the user device (20) according to the location-based personalized preference model;

wherein, when the one or more location-based digital contents are obtained within the location range that is determined according to the position information, the serving system (12) queries the database to acquire more hashtags extended to a wider location range according to the position information.

Excluded matter

The law

8 Section 1(2) of the Act defines certain categories of "*things which are not to be regarded as inventions*". The relevant provisions of this section of the Act are shown 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...*
>
> > *(c) …a scheme, rule or method for…doing business, or a program for a computer;*
> >
> > *(d) …the presentation of information*
>
> *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.*

9 As explained in the notice published by the IPO on the 8 December 2008[1], the starting point for determining whether an invention falls within the exclusions of section 1(2) is the judgment of the Court of Appeal in *Aerotel/Macrossan*[2].

10 The interpretation of section 1(2) has been considered by the Court of Appeal in *Symbian*[3]. *Symbian* arose under the computer program exclusion, but as with its previous decision in *Aerotel* the Court gave general guidance on section 1(2). Although the Court approached the question of excluded matter primarily on the basis of whether there was a technical contribution, it nevertheless (at paragraph 59) considered its conclusion in the light of the *Aerotel* approach. The Court was quite clear (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was never intended to be a new departure in domestic law; that it remained bound by its previous decisions, particularly *Merrill Lynch*[4] which rested on whether

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[1] http://www.ipo.gov.uk/pro-types/pro-patent/p-law/p-pn/p-pn-computer.htm
[2] *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007] RPC 7
[3] *Symbian Ltd v Comptroller-General of Patents*, [2009] RPC 1
[4] *Merrill Lynch's Appn.* [1989] RPC 561

the contribution was technical; and that any differences in the two approaches should affect neither the applicable principles nor the outcome in any particular case.

11 Subject to the clarification provided by *Symbian*, it is therefore appropriate to proceed on the basis of the four-step approach explained at paragraphs 40–48 of *Aerotel* namely:

> *(1) Properly construe the claim.*
>
> *(2) Identify the actual contribution (although at the application stage this might have to be the alleged contribution).*
>
> *(3) Ask whether it falls solely within the excluded matter.*
>
> *(4) If the third step has not covered it, check whether the actual or alleged contribution is actually technical.*

Applying the Aerotel test

Steps 1 and 2 – Properly construe the claim and identify the actual contribution

12 There is no real dispute about how the claim is to be construed. The examiner did just question whether the relationship between the hashtags and the digital content is clear in the claim. He goes on however to rely on the statement in the description on page 6, lines 23-25 & and claim 8, line 4-5 which notes that:

> "The hashtags can be relevant to the digital contents which are trending, popular, with a lot of views, and/or matching with a user preference in the location range."

13 Jacob LJ. addressed the second step in *Aerotel/Macrossan* where he noted:

> "*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."*

14 Jacob LJ. goes on to say that in the end:

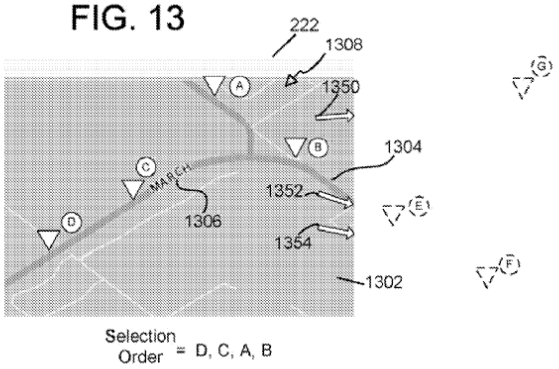
> *"the test must be what contribution has actually been made, not what the inventor says he has made".*

15 Although the application has not been searched, the examiner has relied on the prior art cited against the corresponding US application to help identify the contribution. They note that what the inventor has added to the stock of human knowledge is not the hardware which is conventional. They refer to the prior art as establishing that it is known to display location-based links on a graphical user interface e.g. a map (see for example US2007/0233385, US2014/0278987) as is personalising content/links and using hashtags in the social media context (see e.g. Wikipedia page for 'hashtag', US2016/0328401).

16 The applicant notes that US 2007/0233385 (Dickie) is directed to methods and apparatus for providing map-related file data associated with points of interest (POIs)

for visually-displayed maps in a mobile communication device. In the method of Dickie, a viewable map region having one or more selectable map elements of a map is displayed on a display of the mobile communication device; when an end user selection of one of the map elements is detected, information corresponding to the selected map element is displayed. The information to be displayed includes a file identifier corresponding to the file to be selected. The file linked to the file identifier is then transmitted to the mobile communication device.

FIG. 13



18 The applicant notes that a "hashtag" (e.g., #hashtag1, #hashtag2 or #hashtag3)" associated with digital content generally consists of a string with a prefix with a symbol "#" and can be a textual label or metadata tag commonly used in a social network. This is the sense in which the term "hashtag" is used in the present application, as is made clear in the final paragraph of page 6 of the description.

19 The applicant submits that the claimed hashtags are not taught by Dickie since the POIs which are displayed in the system of Dickie (e.g. as shown in Fig. 13) have a different meaning. In particular, the POIs are always marked on the map of Dickie, based only on the information of the location and not learned from the user's preference. In contrast, the claimed hashtags can be used to recommend more digital contents than those located on the current location range on the map.

20 The applicant further notes that the serving system of the claimed invention queries the database in order to acquire more hashtags extended to a wider location range according to the position information, when the one or more location-based digital contents are obtained within the location range that is determined according to the position information generated by the browser program manipulated by the user. This contrasts with the implementation of the POIs in Dickie.

21 I accept that these are features not present in the prior art and therefore form part of the contribution. The examiner also recognises this in their assessment of the contribution which reads:

> A computer-implemented method for recommending a location-based digital content, comprising:

receiving position information generated by a browser program that uses an electronic map (graphical user interface) for browsing the digital content with the position information;

determining a location range according to the position information, and obtaining location-based digital contents by querying a database;

providing hashtags relevant to the digital contents to the user device and then displaying links of the one or more hashtags on the map initiated by the browser program;

collecting and continuously learning from records generated to create a location-based personalized preference model, providing the one or more hashtags that are personalized to the user device according to the location based personalized preference model; wherein, when the one or more location-based digital contents are obtained within the location range that is determined according to the position information, the serving system queries the database to acquire more hashtags extended to a wider location range according to the position information.

22 I am content to proceed based on that statement of the contribution.

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

23 I will consider steps 3 and 4 together

A program for a computer

24 Lewison J. (as he then was) set out in *AT&T/CVON*[5] five signposts that he considered to be helpful when considering whether a computer program makes a technical contribution. In *HTC*[6] the signposts were reformulated. 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.

25 It is important to stress that these signposts are just that. They are not barriers or hurdles that need to be individually or collectively overcome by the applicant. They are rather a non-exhaustive list of some of the factors that can indicate in some cases whether a particular contribution may be technical.

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[5] *AT&T Knowledge Venture/CVON Innovations v Comptroller General of Patents [2009] EWHC 343 (Pat); [2009] FSR 19*
[6] *HTC v Apple [2013] EWCA Civ 451*

26 The applicant contends that the first signpost is satisfied here. They note that providing hashtags relating to a location range which is wider than that determined based on position information from the browser produces a technical effect outside the computer.

27 The computer as referred to in signpost i) can include, as here, a network of computers[7] hence providing an enhanced display on one part of that network, ie the user device, does not provide a technical effect outside of the computer.

28 The examiner has also addressed the interaction with a user such as providing location based personalised links (hashtags) on a graphical user interface (map). They note with reference to *Gemstar*[8] that there is nothing over and above the usual interaction a user has with a (conventionally) programmed computer that points to a relevant 'technical effect'. The examiner highlights paragraph 50 of *Gemstar* which reads:

> "So the case comes down to a consideration of whether there is a technical effect as required by step 4 (or perhaps step 3) of Aerotel. The technical effect relied on by Gemstar is a better interface, or a different interface if "better" is not relevant. That is an abstract concept. It does not in terms describe some physical activity or effect. There is a different display on the screen, but that is not enough, in my view. That is still part of the computer program and is not an external effect (Mr Birss did not rely on any internal effect). Many computers running a program are likely to have a display output, and if that were enough to be a technical effect then every program in such a computer would be likely to fall outside the exclusion, which is unlikely to have been the intention of the draftsman of the Act. A different display to that shown before does not seem to me to go far enough to amount to a technical effect which makes a difference. Mr Birss describes the technical content as being a better user interface (usually) or a user interface (sometimes). That way of describing it does not overcome the difficulty he faces. Ultimately they are both ways of describing, in different terms from the patent, what the invention is said to achieve. But they are both judgmental, the first more so than the second. The fact that what the user perceives and interacts with is "better" does not make the advance technical at all (nor is it part of the claims). Nor does characterising it as an interface give it a technical effect that it would not otherwise have had One has to look to see what the effect actually is, and in my view it is not technical. In fact, in the sense in which Mr Birss uses the expression, "interface" confirms this it is an abstract, not a physical, concept."

29 I can find no fault with this analysis of the examiner. The invention here is not assisted by signpost i).

30 The applicant contends signposts ii)-v) are also satisfied without really explaining how. Rather they rely on the feature that system provides “extended hashtags” without needing to process browsing data for the “extended location range”. However, as the examiner notes, this is merely a feature of how the program is designed. It does not affect how the computer runs in a technical sense – any increase in speed in providing the information comes from the program rather than the computer itself being made to operate more efficiently. I am satisfied that none of signposts ii) to iv) assist here.

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[7] *Lantana v Comptroller General of Patents* [2013] EWHC 2673

[8] *Gemstar-TV Guide International Inc v Virgin Media Limited* [2010] RPC 10

31 Signpost v) refers to the perceived problem being overcome however the provision of information beyond that contained with the location range of a displayed map is not a technical problem and the solution provided here is not a technical solution. Rather it is again merely a matter of program design as noted by the examiner.

32 I am satisfied that the claimed invention relates to a program for a computer.

Method of doing business

33 The examiner addresses the business method exclusion in paragraphs 18-20 of their pre-hearing report. These read:

> "18. The invention in one iteration is directed to providing personalised commercial information such as advertisements (using hashtags) to a user's device. The contribution represents a hashtag service and/or an advertisement service. This is made clear in the description (page 26 lines 15-22):
>
> > "It should be noted that, in addition to the serving system calculating the hashtags recommended to the user according to the above-mentioned popularity, timeliness and personalized features of the user, the serving system can also actively recommend other hashtags to the user. For example, the serving system can recommend the hashtags associated with a region near the 20 location of the user, adjacent regions, or an area larger than the location range to be browsed by the user. The hashtags recommended by the serving system can also be relevant to a specific season, a festival, or a commercial advertisement."
>
> 19. This has a clear business objective. HHJ Birss QC in Halliburton paragraph 35 (Halliburton Energy Services Inc's Applications [2012] RPC 129) discussed the difficulty in assessing business method cases:
>
> > "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.
>
> 20 In the present case the hashtag/advertisement service as set out in the contribution may well be a faster and more efficient computerized service. However, for the reasons given above I do not consider the invention to give rise to a technical effect. Therefore, I consider the contribution to also relate to a business method as such."

34 There is nothing from the applicant that would persuade me that this analysis by the examiner is not correct. I conclude that the invention is also excluded as a method of doing business.

Presentation of information

35 The examiner addresses the presentation of information exclusion in paragraph 21 of their pre-hearing report. This reads:

> "21. The contribution made by the present invention is a computer program for presenting personalised links/hashtags on a browser initiated map (GUI) (see Fig. 5, page 19 lines 9-15). The information on the map can be updated with more hashtags extended to cover a wider

> location range. I therefore consider the contribution to fall within excluded matter as presentation of information as such under section 1(2)(d). That finding is I think entirely consistent with the Gemstar judgment referenced above where Mann J concluded that an interface characterised by displaying certain information in a different way was not patentable irrespective of whether it was a better interface."

36 Again, I can find no fault in the examiner's reasoning.

37 Taking a final step back, I am satisfied that the contribution provided by the claimed invention does not make a contribution that is technical. I would add for completeness that I could see nothing technical in the use of hashtags as opposed to any other label for the information nor did I find any technical contribution in the learning step of the invention which is entirely conventional.

Conclusion

38 Having carefully considered the arguments, I am of the view that the contribution falls solely within matter excluded under section 1(2) as a program for a computer, a method for doing business and as the presentation of information as such. I can see nothing in the specification that could be reasonably be expected to form the basis of a valid claim. I therefore refuse this application under section 18(3).

Appeal

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

PHIL THORPE

Deputy Director, acting for the Comptroller