Intellectual Property Office

BL O/360/19
24 July 2019

PATENTS ACT 1977

APPLICANT Adobe Systems Incorporated

ISSUE Whether patent applications GB1513354.9, GB1513362.2 and GB1513405.9 are excluded under section 1(2)

HEARING OFFICER H Jones

DECISION

Introduction

1 This decision relates to three applications. These and several others from the same applicant are all broadly concerned with the creation of marketing activities in a digital environment. In each case the examiner is of the view that the applications relate to subject-matter excluded from patentability by virtue of section 1(2) of the Patents Act 1977 ("the Act"), more specifically as methods for doing business and programs for a computer as such.

2 The inventions seek to assist marketing professionals in creating marketing activities by improving their awareness regarding the success of previously deployed marketing activities. Tracking data from previous deployment can enable marketers to choose content and content creators best suited to the marketing activity being created.

3 In each case the examiner reported that a search would serve no useful purpose under section 17(5)(b) and, following several rounds of correspondence and some amendments to the specification, it falls to me to reach a decision based on the papers on file as to whether the applications comply with section 1(2).

4 I will deal with the law first and then with each application in turn.

The law

5 Section 1(2) of the Act lists certain categories of subject-matter which are not considered to be inventions. These categories of subject-matter are often referred to as excluded subject-matter:

> *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) 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.

6 The Court of Appeal in *Symbian*[1] stated that the question of whether a computer-implemented invention is patentable has to be resolved by answering the question whether it reveals a technical contribution to the state of the art. It proceeded to answer the question with the aid of the four-step test for excluded subject-matter set out in its earlier judgment in *Aerotel*[2], the steps of the test are as follows:

(i) properly construe the claim;
(ii) identify the actual contribution;
(iii) ask whether it falls solely within the excluded subject-matter;
(iv) check whether the actual or alleged contribution is actually technical in nature.

7 Paragraph 43 in *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.

8 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".

9 Lewison LJ has provided five helpful signposts 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:

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.

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[1] Symbian Ltd v Comptroller-General of Patents [2008] EWCA Civ 1066
[2] Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application [2006] EWCA Civ 1371
[3] AT&T Knowledge Ventures LP, Re [2009] EWHC 343 (Pat)
[4] HTC v Apple [2013] EWCA Civ 451

10 I will comment here on one point raised by the attorney for the applicant. In their letter dated 23 January 2019 they refer to a decision of a hearing officer, namely BL O/112/18 (Landmark Graphics), and describe it as "**binding case law** which should be applied when assessing whether an invention should be considered as constituting excluded subject-matter" [original emphasis]. While this is flattering, given that I was the hearing officer in question, it seems to me that my earlier decision is not binding case law, in contrast with the decisions of the Courts quoted above. I should say that plucking a single paragraph from such a lengthy decision runs the risk of robbing it of its proper context. In the particular paragraph of mine that is quoted, I think they key points are firstly that I was simply acknowledging what Mann J said in paragraph 9 of *Macrossan v Comptroller-General of Patents* ("*Macrossan*")[5] and secondly that, for an application to succeed, there should be "substantial doubt", in the words of Mann J, rather than any doubt. In the cases I am considering here therefore the question is whether such substantial doubt has been raised.

The applications in suit

GB1513354.9

11 GB1513354.9, published as GB2532823, describes content creation and deployment collaboration techniques and, as amended, includes independent method and system claims to the same inventive concept. Method claim 1 reads as follows:

> 1. In a digital medium environment for creating a marketing activity, where the marketing activity involves creation of content as part of the marketing activity, a method to create the content and track deployment of the content, the method comprising:
>
> obtaining, by a content deployment service, content associated with a marketing activity, the content having metadata associated therewith describing one or more devices utilized in creating the content, wherein the device is an accessory utilized at least in part to capture the content, and wherein the metadata further comprises metadata describing one or more settings of the device used to capture the content;
>
> including, by the content deployment service, a tracking monitor with the content, wherein the tracking monitor actively monitors the potential consumers' interaction with the marketing activity and is configured to cause data that describes the tracked deployment of the marketing activity and the metadata describing the one or more devices utilized in creating the content to be communicated to the content deployment service;
>
> deploying, by the content deployment service, the marketing activity;
>
> receiving, by the content deployment service, the data that describes the tracked deployment of the marketing activity and the metadata describing the one or more devices utilized in creating the content; and
>
> exposing, by the content deployment service, data for output in a user interface that describes the tracked deployment of the marketing activity and the metadata describing the one or more devices utilized in creating the content.

[5] Macrossan v Comptroller-General of Patents [2006] EWHC 705 (Ch)

12 I must first properly construe the claim. Both the examiner and the attorney believe that the claim is sufficiently clear such that they see no need to elaborate this step further. Broadly speaking I agree with this, save to say two things. Although the claim begins with the words *“In a digital medium environment for creating a marketing activity”*, it seems that all aspects of the claimed method in fact take place in the digital environment, not just the creation of the marketing activity. I note that the claim is directed to “*a method to create the content and track deployment of the content*”, although in fact the steps in the method begin with obtaining content, presumably after the creation of that content.

13 Turning to the second step of identifying the actual contribution, the attorney and examiner seem to differ only a little. According to the attorney in their letter dated 23 January 2019, “*[t]he contribution of the claimed invention can be thought of, for example, as a new system for deploying content in a manner which allows for data describing the deployment of content to be autonomously communicated back to a content deployment service for exposure*”. For the examiner, “[t]*he alleged contribution is therefore felt to reside in tracking deployment of content created as part of a marketing activity, the content including a description of an accessory device(s) and its settings used in creation of the content and a tracking monitor, which monitors a potential consumers’ interaction with the marketing activity, where the tracking monitor enables data that describes the deployment of the marketing activity and the device meta data to be tracked. This data is then output to describe the tracked deployment of the marketing activity and the device used in creating the content of the marketing activity*”. It seems to me that the contribution amounts to a method for tracking content deployed as part of a marketing activity in a digital environment.

14 Now I must consider whether the contribution I have identified falls solely within the excluded subject-matter, either as a method for doing business as such or a program for a computer as such.

15 The attorney argues that “*the central idea of the claimed invention relates to the tracking of data, which is an inherently technical process*” and that the “*collection of data from external devices is undeniably a technical process having a technical effect*”. These strike me as arguments that might be found in the rich vein discussed by HHJ Birss QC in *Halliburton Energy Services Inc.*[6], where he said:

> *35. 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 LJ 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.*

16 It may well be that the tracking, monitoring, communicating, etc. to which the claim refers could be described as technical processes because they are performed in a

[6] Halliburton Energy Services Inc., [2011] EWHC 2508 (Pat)

digital environment involving one or more computing devices. However, that does not render the contribution as technical in nature. Ultimately the invention is concerned with a marketing activity which is a method for doing business. The fact that the activity takes place in a digital environment employing computing devices does nothing to change this.

17 While I have found that the invention is excluded as a business method and do not necessarily need to consider the position with regards to the computer program exclusion, I will say that I have considered the respective positions of the examiner and attorney and agree with the examiner's analysis of the invention in respect of the *AT&T* signposts, i.e. that there is no technical effect from the claimed invention. In brief, the first signpost asks whether the claimed technical effect has a technical effect on a process which is carried on outside the computer. For the examiner, there are no links or technical effect on anything external to the computer arrangement upon which the method is run, and providing the data required by the claim is not a technical effect. By contrast, the attorney argues that an external device is caused to communicate data to the content deployment service. I do not think it is clear that an external device is involved - the claim requires the tracking monitor "*to cause data … to be communicated to the content deployment service*", and the tracking monitor is included with the content. The attorney's reference to an external device points to a separation that I do not feel is present in the claim. It is clear from the various embodiments set out in the application that a number of intercommunicating devices may be involved in realising the method. However, consistent with Birss J in *Lantana v Comptroller-General of Patents* [2013] EWHC 2673 (Pat), I do not consider that "the computer" to which the signposts refer should be taken to mean strictly a single, indivisible computing entity. Rather, I think the examiner's computing arrangement (or the digital medium environment of the claim) constitutes the computer for the purposes of considering the signposts. The various steps of the claimed method all take place within that arrangement or environment. Consequently, there is no effect, still less a technical effect, on a process which is carried on outside the computer.

18 The second signpost asks 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. The attorney does not address the second signpost, but for the examiner the computing apparatus being used is entirely standard and nothing suggests that an effect occurs at this level. I agree with his analysis.

19 For the third signpost, i.e. whether the claimed technical effect results in the computer being made to operate in a new way, the attorney argues that it does because the claimed steps of obtaining content, including a tracking monitor with the content, deploying the content and receiving and exposing data are a new combination of operations. On the other hand, the examiner has considered the third and fourth signposts together and says that the contribution lies in running an application rather than a computer operating in a new way. This seems to me an entirely proper approach in this case, i.e. in considering the third and fourth signposts together and concluding that the contribution lies in running an application rather than a computer operating in a new way. It seems to me that to say otherwise would in effect be to say that running any program or application makes the computer upon which it runs operate in a new way and hence is at least likely to provide a technical contribution. That cannot be the case. I should add that nor can it be the case that running a program or application could never result in a computer operating in a new way or make a better computer.

20 The attorney states that the claimed invention falls under the fifth signpost, i.e. the perceived problem is overcome by the claimed invention as opposed to merely being circumvented. They argue that the technical problem is how to provide a technical implementation which allows for deploying content in a manner which ensures data describing the deployment of content is autonomously communicated back to a content deployment service for exposure. The examiner refers to page 1 of the description to find the perceived problem, namely that professionals may not be aware why past marketing activities were successful. It seems reasonable to suppose that the data communicated to the content deployment service would be helpful in addressing this perceived problem. However, I agree with the examiner that the problem is not in itself technical and, despite the use of technical means for its implementation, there is not a technical effect from the claimed invention.

21 The final *Aerotel* step is to check whether the contribution is actually technical in nature and I think it is clear that I do not believe this to be the case.

22 Returning briefly to the attorney's point about doubt from the *Landmark Graphics* decision, I do not feel that they have raised substantial doubt regarding what is claimed in the current application. Consequently, it is my view that the subject-matter claimed is not patentable as it is both a method for doing business and a computer program as such.

GB1513362.2

23 Application number GB1513362.2, published as GB2532825, also describes content creation and deployment collaboration techniques and includes independent system and method claims directed to the same subject-matter. Claim 1 as amended is as follows:

> 1. In a digital medium environment for deploying marketing activities, where the deployed marketing activities involve deployment of content as part of the marketing activities, a system to track deployment of the content comprising:
>
> one or more modules implemented at least partially in hardware to track deployment of content for use as part of marketing activities, the one or more modules configured to expose functionality configured to:
>
> aggregate data describing tracked deployment of a plurality of the marketing activities and content included as part of respective ones of the plurality of marketing activities to a plurality of potential consumers; and
>
> cause output in a user interface that indicates:
>
> similarity of metadata of the content included as part of respective ones of the plurality of marketing activities, between one of the plurality of marketing activities to another, that describes creation of the content,
>
> wherein the metadata describes characteristics of a device used to create the content including exposure time for images and background noise for sound data,
>
> and wherein environmental conditions of a scene in which the content is captured are based on the exposure time or background noise, the environmental conditions including a scene classification, lighting conditions, or whether the environment is likely indoors or outdoors;
>
> correspondence of the similar metadata with the tracked deployment of the

plurality of marketing activities described by the aggregated data; and

a suggestion for content to be deployed as part of a marketing activity based on the correspondence of the similar metadata with the tracked deployment of the plurality of marketing activities described by the aggregated data.

24 I have some difficulty understanding the detail of the claim. For example, the claim defines the metadata by saying "*wherein the metadata describes characteristics of a device used to create the content including exposure time for images and background noise for sound data*". However, exposure time and background noise are not obviously characteristics of a device, but rather of content in the form of a particular image or sound recording captured by a device. The output should indicate both "*similarity of metadata*" and "*correspondence of the similar metadata with the tracked deployment*", but it is not clear to me how the similarities and correspondence of the metadata are to be derived. Finally, the output should indicate a suggestion for content to be deployed, although the claim provides no basis or mechanism for the modules to make this suggestion.

25 Ultimately, I do not think that my difficulty with the claim needs to affect my decision. I think it is reasonably clear where the alleged invention lies, perhaps best described in paragraph 77 of the description:

> [0077] The user interface 508 is configurable to output suggestions for content to be included based on the metadata 206 and deployment data 122. The marketer 408, in one or more such instances, provides inputs describing characteristics of a marketing activity to be created and/or content for inclusion as part 36 of the marketing activity. For example, the marketer 408 may provide a textual description of the marketing activity 308 and/or content 114, select examples of content 114 for inclusion that are not to be included themselves but represent characteristics that are desirable by the marketer, and so forth. The content creation service 102 then outputs suggestions of characteristics of the content (e.g., the metadata 206) based on the metadata 206 that have been successful or not successful as indicated by the 4 deployment data 122.Further, this is performable as part of a workflow in which tasks are assigned along with comments and markups shared to create desired content, further discussion of which may be found in relation to FIGS. 8-24.

26 I take it that the system can suggest content to be used for a proposed marketing activity based upon the tracked performance of past marketing activities and upon input from a marketer describing the proposed marketing activity. I think that I can use this characterisation of the contribution to consider the third and fourth steps of the *Aerotel* test. This characterisation broadly corresponds to the contribution as identified by the examiner and the attorney, although rather than suggesting content based on tracked performance they both refer to detecting hidden similarities in content metadata or between a plurality of activities, specifically metadata describing environmental conditions based on exposure time or background noise. Although I am not sure what is intended by "hidden", a term I cannot find in the specification, referring to detection reflects detail implicit in the claim, but does not bring out that it is successful deployment of content that drives the suggestions and this is why I have chosen to refer to tracked performance.

27 The third step asks whether this contribution falls solely within the excluded subject-matter, i.e. a method for doing business or a program for a computer. Much like the previous application, it may well be that the tracking, aggregating, outputting, etc. to which the claim refers require technical processes since they are performed in a digital environment involving, inevitably, one or more computing devices. The attorney argues that the contribution provides a technical means capable of detecting similarities and outputting a suggestion. However, it seems to me that it is no more than a tool to assist in deploying marketing activities and this is simply a method for doing business irrespective of the digital environment in which the method is performed.

28 I shall now consider the *AT&T* signposts to assist with the question of whether the claimed invention should be excluded from patentability as a computer program as such. The first signpost asks whether the claimed technical effect has a technical effect on a process which is carried on outside the computer. As claimed, nothing seems to happen outside the "*modules implemented at least partially in hardware*" and so it is difficult to say that there is any effect outside the computer, still less a technical effect. Although it lies outside the claim, one might say that there is an effect on a user making use of the suggestion that is part of the output of the system and method. In any event, such an effect, perhaps an increased likelihood of successful deployment of a marketing activity, is not a technical effect.

29 There is no suggestion of any change to the operation of the computer arrangement at the level of its architecture or of the computer operating in a new way or of the computer running more efficiently and effectively. Consequently, the second, third and fourth signposts do not point towards a technical contribution.

30 The fifth signpost asks whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented. Since there is no technical problem to be overcome or circumvented in this case, this last signpost does not point to a technical contribution.

31 From what I have said above it should be apparent that I do not find that the contribution is technical in nature and, overall, I do not consider that the attorney has raised substantial doubt concerning the question of patentability. Consequently, it is my view that the subject-matter claimed in this second application is also not patentable: the invention is both a method for doing business and a computer program as such.

<u>GB1513405.9</u>

32 This application, which was published as GB2532828, also describes content creation and deployment collaboration techniques. There are independent system and method claims directed to essentially the same subject-matter. Claim 1 as amended is as follows:

> 1. In a digital medium environment for deploying a marketing activity, where the marketing activity involves deployment of content as part of the marketing activity, a system to deploy the content comprising:
>
> one or more modules implemented at least partially in hardware, the one or more modules configured to perform operations comprising:
>
> receiving data describing tracked deployment of a plurality of marketing

activities and content included as part of respective ones of the plurality of marketing activities to a plurality of potential consumers;

segmenting the data and corresponding content as being associated with a respective one of a plurality of marketing channels, wherein the plurality of marketing channels are based at least in part on device type that is used to consume the content;

rating the content based on usage within respective ones of the plurality of marketing channels and commonalities of metadata associated with content within respective ones of the plurality of marketing channels; and

selecting the content for inclusion with a marketing activity based on using the ratings of the content within one or more of the plurality of marketing channels that are identified as being associated with a potential consumer that is to receive the marketing activity.

33 Although claim 1 is directed to "*a system to deploy the content*", I note that the system seems to stop short of actually deploying the content selected at the end of the claim. I also note that independent claim 8 is directed to "*a method to rate the content for deployment as part of the marketing activating* [sic] *comprising*", although rating the content is just one part of the method of claim 8. I do not think these points are significant to this decision.

34 In construing the claim, the examiner has some difficulties with understanding some of the wording used, which I share. He points out that it is not clear if "*content*" and "*the content*" refer to the same content throughout the claim and that "*commonalities of metadata*" is problematic as it is not clear how they are derived. Despite these issues, the attorney and examiner arrive at essentially the same contribution, respectively:

The contribution is therefore considered to be a means of selecting content for inclusion in a marketing activity based on previous performance of content in a given marketing channel/target device, the performance indicated by ratings based on usage and metadata associated with the content. The content is able to be automatically selected based on the given device used by the potential consumer. This has the advantage that only content which is known to be effective on a given device is deployed as part of the marketing activity.

and

*Accordingly, the contribution of the claim can be thought of, for example, as a system which is capable of autonomously **avoiding provision** of content to a user which is **technically incompatible** with the **device** type they use to consume content.*

35 I see no reason to depart from the more complete version of the contribution derived by the examiner. The contribution as characterised by the attorney somewhat understates the rating and selecting steps required after the segmentation based on device type, at least in part.

36 The next *Aerotel* step is to ask whether the contribution falls solely within the excluded subject-matter, i.e. a method for doing business and a programme for a computer as such. It is clear that the claims involve technical processes since they are performed in a digital environment, and in the case of claim 1 explicitly refers to

implementation at least partially in hardware. Nevertheless, the contribution lies in selecting content for marketing activities based upon its previous performance and upon a device type, and it seems to me that such selection, automated or not, amounts to a method of doing business. The attorney argues that the contribution is technical by the mere fact that the system can check technical compatibility between content and device and that any other factors used by the method to assess the content are of no relevance. If compatibility checking was the sole contribution that the system and method provided then there might be something in that argument. However, as I noted above, the contribution is more than this, and I cannot see that this system and method for selecting content for a marketing activity is other than a method for doing business.

37 As I have said in relation to the earlier applications, I do not need to go on to ask whether the application also relates to a computer program as such. However, based on the examiner's consideration of the claimed invention against the *AT&T* signposts, I agree that there is no technical effect from the invention and that it therefore too relates to a program for a computer as such.

Conclusion

38 Patent applications GB1513354.9, GB1513362.2 and GB1513405.9 do not comply with section 1(2) as they all relate to methods for doing business and programs for a computer, these being areas of subject-matter excluded from patentability. I therefore refuse the applications under section 18(3).

Appeal

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

H JONES
Deputy Director, acting for the Comptroller