Intellectual Property Office

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PATENTS ACT 1977

APPLICANT	Canon Kabushiki Kaisha
ISSUE	Whether patent application number GB1506763.0 complies with Section 1(2)(c) of The Act.
HEARING OFFICER	Peter Mason

DECISION

Introduction

1 This decision concerns the question of whether the invention set out in patent application GB 1506763.0 relates to excluded matter under s1(2) of The Act.

2 The application entitled "Information Processing Terminal and Control method" was filed at the IPO on 21st April 2015 in the name of Canon Kabushiki Kaisha, claiming priority from applications JP2014-091810 with a filing date of 25th April 2014 and JP2014-127539 with a filing date of 20th June 2014. The application was published on 9th December 2015 as GB 2526925 A.

3 Processing as a Combined Search and Examination was requested and following several rounds of correspondence the applicant filed the current set of claims on 9th January 2018. The examiner has maintained throughout the examination of this application that the claimed invention is excluded from patentability under section 1(2)(c) of the Patents Act 1977, as a program for a computer. The applicant has not been able to reach agreement with the examiner, despite amendments to the application. On 23rd March 2018, the applicant requested a hearing, and that the matter be decided on the basis of the papers on file.

The Law

4 The examiner raised objections under section 1(2) of the Act, stating that the invention is not patentable because it relates *inter-alia* to one or more categories of excluded matter. The most relevant provisions of this section of the Act are shown in bold 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.

5 These provisions are designated in Section 130(7) as being so framed as to have, as nearly as practicable, the same effect as Article 52 of the European Patent Convention, to which they correspond. I must therefore also have regard to the decisions of the European Patent Office Boards of Appeal that have been issued under this Article in deciding whether the present invention is patentable although I am not bound to follow them. I am bound to follow the decisions of the UK Courts however.

6 There is a large amount of case law in relation to the provisions of section 1(2). The most significant recent judgments of the Court of Appeal on the matter are *Aerotel/Macrossan*[1] and *Symbian Ltd's Application*[2]. Following the guidance in *Symbian* I will use the four-step approach explained at paragraphs 40-48 of *Aerotel* and ensure in my consideration of steps (3) and (4) that I determine whether the invention makes a technical contribution. The steps are :

(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.

7 The Court said in *Symbian* (see paragraphs 8-15) that the structured four-step approach to the question in *Aerotel* was not a new departure in domestic law and that it remained bound by its previous decisions, particularly *Merrill Lynch*[3]. The *Aerotel* test is intended to be equivalent to the prior case law test of "technical contribution".

8 When considering the computer programme exclusion, it can be helpful to consider the 'signposts' set out in paragraph 40 of *AT&T/CVON*[4] which provide guidelines when considering whether a computer program makes a relevant technical contribution beyond the exclusion. The fourth signpost was subsequently reworded

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[1] *Aerotel Ltd v Telco Holdings Ltd and Macrossan's Application* [2006] EWCA Civ 1371; [2007]
[2] *Symbian Ltd v Comptroller-General of Patents* [2009] RPC 1
[3] *Merrill Lynch's Application* [1989] RPC 561
[4] *AT&T Knowledge Ventures/CVON Innovations v Comptroller General of Patents* [2009] EWHC 343 (Pat)

by the court of appeal in paragraphs 50-51 of *HTC v Apple*[5] following *Gemstar*[6]; The five reworded 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;*
>
> *(v) whether the perceived problem is overcome by the claimed invention as opposed to merely being circumvented.*

The Invention

9 The invention is in the field of data storage for web applications. In particular the use of function extensions in HTML 5, data such as a cache function of caching a file is stored in a storage area either on a web server or utilising an Indexed Database or using a WebStorage function. Data can be automatically stored in a storage area of a processing terminal such as computer (PC) or smartphone from the web server providing a website, at the time of browsing the website. This allows the user to continue to view the website content i.e. data stored as cached data when the website is disconnected from a network and/or is offline.

10 However, there is a capacity limit on the data that can be stored using function extensions especially in HTML 5, as data is not deleted from a storage area unless an explicit deletion procedure is taken by the website which causes the data to be stored. This results in data stored using an extended function to remain in the local storage area of a processor terminal.

11 When a user browses a new website, and for example, when the data stored is either close to or already exceeds a storage capacity of a WebStorage then acquisition of data from the WebStorage and storage of new data become slow. Furthermore, if the storage capacity for a processing terminal is small, the data stored in the WebStorage can occupy a large portion of the entire storage capacity of the terminal, thus impacting on other application's ability to store data.

12 To address these problems the application discloses a method for appropriately deleting data stored in a local storage area for a web browser using extended functions.

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[5] HTC v Apple [2013] EWCA Civ 451

[6] *Gemstar-TV Guide International Inc v Virgin Media Ltd* [2010] RPC 10

13 A high level schematic of a web browser is provided in figure 2 and a process of deleting local storage is provided in figure 4 of the application, which are reproduced below:

FIG. 2

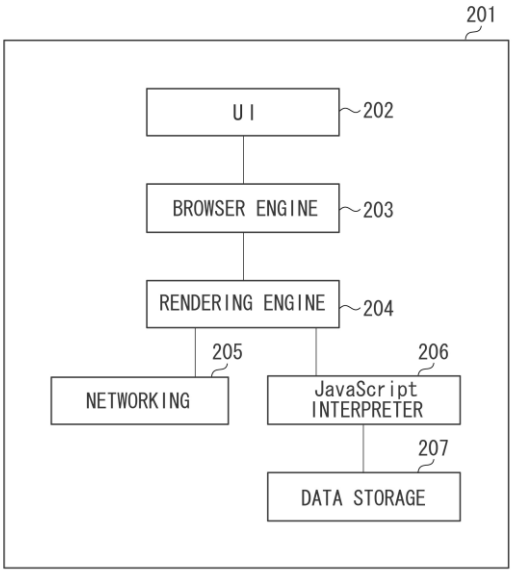
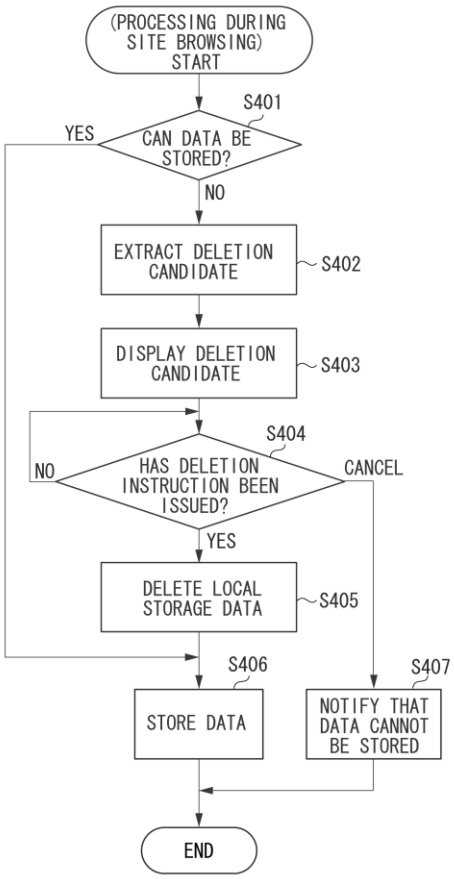


FIG. 4



14 With reference to figure 2 above, a web browser 201 configuration, setting out a user interface (UI) 202 which is a web browser UI including Uniform Resource Locator (URL) display, bookmark display, and web browser setting menu display. A rendering engine 204 displays required content such as HyperText Markup Language (HTML®). A browser engine 203 performs processing between the UI 202 and the rendering engine 204. A networking 205 receives a network call such as a Hypertext Transfer Protocol (HTTP) request. A JavaScript® interpreter 206 analyzes and executes a JavaScript® code. A data storage means 207, generically called local storage, performs control of storing, into a storage device, data of Application Cache, WebStorage, and Indexed DB based on a storage specification related to Cookie or HTML 5. Operations such as data storage and deletion by the data storage means 207 are controllable.

15 In an embodiment of the invention, a WebStorage serves as an extended function related to HTML 5, when the web browser calls a website (requests a web page), the JS interpreter executes a JavaScript code mounted on the web page in the website. According to the execution of the code, the data storage means stores data downloaded from a web server providing the website into a storage area for the web browser. The stored data can be used via the web browser even if the information processing terminal goes offline, and its value can also be edited and further stored.

16 With reference to figure 4 above, which is considered to be self-explanatory with regards to the processing steps and storage of data. The web browser, in step S401, calculates an available data storage capacity and determines whether data from a website can be stored. If data cannot be stored, the web browser extracts, from local storage data stored by the data storage means, data to be deleted. This extracted data is presented to the user, step S403, via the UI, and the user selects which of the extracted data is to be deleted and on doing so, step S404, the web browser deletes the corresponding local storage data, step S405.

17 I shall apply the test set out in Symbian.

(1) Properly construe the claims

The two independent claims (1 and 9) are set out below:

1 An information processing terminal (107) in which a web browser (201) operates, the web browser having a function of storing, as local storage data, data designated by a website into a storage area for the web browser, in response to calling of the website, the information processing terminal comprising:

management means (207) for managing each local storage data stored in the storage area in association with at least one of a corresponding website name and corresponding uniform resource locator URL information;

extraction means (201) for extracting, from among the local storage data stored in the storage area, local storage data as a deletion candidate according to one or more conditions;

presentation means (201) for presenting a screen including identification of the local storage data extracted as the deletion candidate wherein, via the screen, each local storage data extracted as the deletion candidate is displayed by using at least one of the corresponding website name and the corresponding URL information; and

deletion means (201) for deleting the local storage data extracted as the deletion candidate from the storage area, in response to an instruction via the screen, wherein the one or more conditions include at least one of a first condition under which local storage data designated to be stored by a website providing a page which is based on prefetching processing by the web browser and has no browsing history by a user is extracted as the deletion candidate and a second condition under which local storage data designated to be stored by a website having a domain different from a domain of a page instructed by a user to be browsed via the web browser is extracted as the deletion candidate, and

wherein the deletion means (201) is configured to delete, in response to a user instruction of a deletion of a page managed by the web browser as a bookmark, local storage data designated to be stored by a website providing the page.

9. A control method based on a web browser (201) having a function of storing, as local storage data, data designated by a website into a storage area ensured for the web browser in a storage device, in response to calling of the website, the control method comprising:

a managing step of managing each local storage data stored in the storage area in association with at least one of a corresponding website name and corresponding uniform resource locator URL information;

an extraction step (S402) of extracting, from among local storage data stored in the storage area, local storage data as a deletion candidate according to one or more conditions;

a presentation step (S403) of presenting a screen including the local storage data extracted as the deletion candidate wherein, via the screen, each local storage data extracted as the deletion candidate is displayed by using at least one of the corresponding website name and the corresponding URL information; and

a deletion step (S405) of deleting the local storage data extracted as the deletion candidate from the storage area, in response to an instruction via the screen

wherein the one or more conditions include at least one of a first condition under which local storage data designated to be stored by a website providing a page which is based on prefetching processing by the web browser and has no browsing history by a user is extracted as the deletion candidate and a second condition under which local storage data designated to be stored by a website having a domain different from a domain of a page instructed by a user to be browser via the web browser is extracted as the deletion candidate, and

wherein the deletion step is configured to delete, in response to a user instruction of a deletion of a page managed by the web browser as a bookmark, local storage data designated to be stored by a website providing the page.

18 The first step is to construe the claims. I do not think this presents any real problems, however, the examiner has raised a few points of concern, in the pre-hearing report dated 3rd April 2018.

19 Firstly, in claim 1, the wording, "…in response to calling of the website…" has been Construed by the examiner, in light of the description, that 'calling' is understood as 'requesting'. I also tend to agree with this construction, that a web browser has a function of storing data in response to 'requesting' (calling) of the website.

20 Secondly, the examiner raised caution to the term, 'management means' in claim 1 at lines 7-10, having been introduced by amendment dated 25th April 2016. This term was not present in the original filing. As noted by the examiner, support for this

term appears to be present in paragraphs [0022], [0055]-[0057] and [0069], and figures 9A and 9B. The examiner has subsequently construed the 'management means' to be in a form of 'a table' for managing a local stored deletion candidate or candidates.

21 The invention as set out in claims 1 and 9, states that, "…managing each local storage data stored in the storage area in association with at least one of a corresponding website name and corresponding uniform resource locator URL information…", this appears inconsistent with the supporting description, paragraph [0051], in that the management process determines 'deletion candidates' which are displayed in an identifiable manner by using its website name and its URL and their respective sizes are displayed together. The examiner has alluded to the 'identifiable manner' display taking the form of a table.

22 I also concur with the examiner's construction, that the 'management means' could be described as a table. Further, the 'management means' could also include a 'web browser' which performs, in parallel, respective types of control (management) for browsing the website page and for storing the data designated by the website. Additionally, the web browser may manage deletion of a page from a bookmark along with the corresponding local storage data and manage the use of cache data when a terminal goes offline.

(2) Identify the actual contribution

23 Prima facie the applicant and examiner are on common ground as to the contribution. I note that the examiner has expanded more on the detail but this is a matter of form over substance. I therefore believe the contribution to be a computer program (method) to manage a local storage capacity of a processing terminal to ascertain if a website content and/or page can be viewed by a user when browsing, and facilitating the deletion of data from local storage by evaluating free storage capacity with respect to new data to be viewed and extracting and displaying, to the user in an identifiable manner, candidate data to be deleted, which is then deleted on the user's instruction.

(3) Does the contribution fall solely within the excluded matter?

24 I am in no doubt that the substance of the claims 1 and 9 is a computer program and that they make the same contribution. Deciding that the substance of the invention is a program for a computer is of course not the end of the matter. It is very well established in the case law that a program which provides a technical contribution is not excluded ie it is not a program for a computer as such.

25 The examiner has argued that there is no technical contribution and that none of the signposts noted above set out in paragraph 40 of AT&T/CVON have been satisfied.

26 Although the applicant has not addressed each signpost, observations have been filed in their most recent letter dated 9th January 2018. The applicant suggests that the invention provides a function of extracting content that has been stored as local storage data, presenting such extracted content and deleting such content on the user's instruction to do so. Such a function enables the user to appropriately and easily delete unnecessary content stored due to the storage function.

27 However even if I accept that the method set out in the invention is a new method and also a better method, it is new and better only in how it chooses to review, present and delete information, providing local storage capacity capable to store data when browsing by a user. The computer hardware necessary to do this is entirely conventional. The computer running the program is not a better computer in a technical way, especially not at the architecture level. There is no technical contribution in the manner in which the additional information is stored or is made retrievable. Rather the contribution merely lies in the nature of how data is extracted from local storage based on a selection of predetermined parameters and on deletion freeing up local storage space for new information to be stored and made retrievable/viewed. That is in my view a form of data processing or a way of handling specific data. As such the invention is excluded as a program for a computer.

28 I further believe that there is an argument that the invention is excluded as a presentation of information. In this respect that the invention presents to the user via a user interface information corresponding to 'candidate data' which has been selected for deletion. The displayed data being in the form of a table, prompting the user to select the data to be deleted, and on selection and processing, freeing up the local storage capacity which in turn enables the website information to be viewed and stored locally. I will not consider this point any further as no submission on it has been made by the applicant and it does not impact on my decision below.

(4) Check if the contribution is actually technical

29 I have in effect already done this step, but for avoidance of doubt I am content that there is no relevant technical contribution in the invention of GB 1506763.0.

Other Matters

30 The examiner has deferred an objection regarding added matter in the form of an unallowable intermediate generalisation. I have touch on this in paragraphs 19-21. In view of the decision below, I will not consider this point any further as it does not impact on my decision of excluded matter.

Decision

31 I have found that the actual or alleged contribution defined by the claims falls solely in matter excluded from patentability by virtue of Section 1(2) of The Act, namely a program for a computer as such. I therefore refuse these applications under Section 18(3).

Appeal

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

Peter Mason

Deputy Director, acting for the Comptroller