

PATENTS ACT 1977

APPLICANT Sony Corporation

ISSUE Whether patent application number GB 0819091.0
complies with section 1(2)

HEARING OFFICER Ben Micklewright

DECISION**Introduction**

- 1 Patent application GB0819091.0 was filed on 17 October 2008 in the name of Sony Corporation with a declared priority date of 22 October 2007. It was published on 10 June 2009 as GB 2455392 A. During substantive examination the examiner argued that the claimed invention was excluded from patentability as a program for a computer as such. Despite several rounds of correspondence between the examiner and the applicant's attorney the matter could not be resolved. The applicant therefore requested a hearing and the matter came before me at a hearing on 26 April 2012 at which the applicant was represented by their patent attorney Dr Simon Davies of the firm D Young & Co.

The invention

- 2 The invention relates to a system which enables users to make secondary use of distributed content such as music, audio or video data and to perform editing to create subsidiary content, for example mash-ups or remixes, and subsequently to share their created content. The application describes the entire system but the claims relate to a single element of the system namely to deletion of subsidiary content. The claimed invention also addresses the situation where a user deletes subsidiary content and wishes to prevent the content being re-uploaded.
- 3 The way the invention works is that pieces of subsidiary content information each include playback control information which enables subsidiary content to be produced from audio and/or video data stored in primary content files. This information also includes two identifiers. The first of these, the subsidiary content identifier, acts as an identifier of the subsidiary content information. The second, the editing history identifier, is unique to a particular combination of playback control information and identifiers of primary content files. The subsidiary content information is stored on a server and accessible by a user over a network. When deletion is requested a further identifier called a "sub-subsidiary content identifier" is

generated corresponding to the subsidiary content information for which deletion has been requested and the editing history identifier of that content. The subsidiary content information is replaced with this new identifier. In practice what this means is that the relevant playback information is deleted whilst the subsidiary content identifier and the unique editing history identifier are retained.

- 4 Claim 2 sets out what happens when a request is made to upload subsidiary content information. A search is carried out of the subsidiary content information and sub-subsidiary content information stored on the server to determine if the value of any editing history identifier of any such stored content is within “a certain or higher approximation percentage” of the value of the editing history identifier of the subsidiary content to be uploaded. If such a match is made then the upload request is rejected. Thus not only is it not possible to upload subsidiary content information which is sufficiently similar to subsidiary content information already stored on the server, it is also not possible to upload subsidiary content information which is sufficiently similar to subsidiary content information which has been deleted from the server. This occurs because the sub-subsidiary content identifier representing that deleted content remains on the server. The invention of claim 2 therefore ensures that similar subsidiary content information cannot be re-uploaded to the server even when the original subsidiary content information has been deleted from the server.
- 5 Claims 1 and 5 are independent and relate respectively to device and method claims. These claims are set out below. I have also set out claim 2 as Dr Davies asked me to consider claim 2 as an auxiliary request if I am minded to refuse claims 1 and 5.
- 6 Claim 1, in the form under consideration at the hearing, reads:

1. An information processing device comprising a subsidiary content server having:

storage means configured to store at least subsidiary content information including at least playback control information for instructing playback of audio and/or video data in a primary content file serving as original editing material, and also having a subsidiary content identifier corresponding to itself and an editing history identifier uniquely obtained based on the playback control information and identifiers of primary content files serving as original editing material for the corresponding subsidiary content;

communication means configured to execute communication via a network with one or more user terminals, thereby allowing the subsidiary content server to receive subsidiary content information over the network from a user terminal device for storage in the storage means and to download subsidiary content information stored in the storage means from the subsidiary content server over the network to a user terminal device; and

deletion control means configured to, in the event that deletion regarding subsidiary content information stored in said storage means has been instructed, generate sub-subsidiary content information configured of at least the subsidiary content identifier corresponding to the subsidiary content

information regarding which deletion has been instructed, and the editing history identifier of the subsidiary content regarding which deletion has been instructed, and storing said sub-subsidiary content information in said storage means instead of the subsidiary content information regarding which deletion has been instructed.

2. The information processing device according to claim 1, further comprising:

searching means configured to search, in subsidiary content information and said sub-subsidiary content information stored in said storage means, for approximation subsidiary content information having an editing history identifier with a certain or higher approximation percentage as to the value of the editing history identifier of a subsidiary content information regarding which an upload request has been performed, in response to having received an upload request for newly storing said subsidiary content information in said storage means by said communication means; and

upload response means arranged to execute a response equivalent to rejection of uploading, in the event that said approximation subsidiary content information has been found by said searching means.

5. An information processing method for an information processing device comprising a subsidiary content server, said method comprising the steps of:

storing in a storage means of the subsidiary content server at least subsidiary content information including at least playback control information for instructing playback of audio and/or video data in a primary content file serving as original editing material, and also having a subsidiary content identifier corresponding to itself and an editing history identifier uniquely obtained based on the playback control information and identifiers of primary content files serving as original editing material for the corresponding subsidiary content;

executing communication via a network with one or more user terminals, thereby allowing the subsidiary content server to receive subsidiary content information over the network from a user terminal device for storage in the storage means and to download subsidiary content information stored in the storage means from the subsidiary content server over the network to a user terminal device; and

in the event that deletion regarding at least subsidiary content information stored in said storage means has been instructed, generating sub-subsidiary content information configured of at least the subsidiary content identifier corresponding to the subsidiary content information regarding which deletion has been instructed, and the editing history identifier of the subsidiary content regarding which deletion has been instructed, and storing said sub-subsidiary content information in said storage means instead of the subsidiary content information regarding which deletion has been instructed.

The law

- 7 Section 1(1)(d) of the Patents Act 1977 (“the Act”) states that a patent may be granted only for an invention in respect of which the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A. Section 1(2)(c) states that things which consist of “a scheme, rule or method for performing a mental act, playing a game or doing business, or a program for a computer” are not inventions for the purposes of the Act, but only to the extent that a patent or application for a patent relates to that thing as such.
- 8 There is a large amount of case law in relation to these provisions. The most significant recent judgments of the Court of Appeal on the matter are *Aerotel Ltd v Telco Holdings Ltd Ors Rev 1* [2007] RPC 7 and *Symbian Ltd’s Application* [2009] RPC 1. In *Aerotel* the Court of Appeal reviewed all the previous case law and specified the following four-step test as a methodology of determining whether an invention was excluded from patentability under section 1(1)(d):
- (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.
- 9 In *Symbian* the Court of Appeal confirmed that the above test is intended to be equivalent to the prior case law test of “technical contribution”. In the present case I will therefore use the *Aerotel* test and ensure in my consideration of steps (3) and (4) that I determine whether the invention makes a technical contribution.

Assessment

(1) Properly construe the claim

- 10 The claims in the present application are not clearly drafted and a number of construction issues therefore arise. The attorney and examiner agreed on how claim 1 should be construed. Their agreed construction is a reasonable one and I will construe the claim in the same manner.
- 11 I construe the term “playback control information” to mean some kind of playback control information which enables the subsidiary content to be produced from the primary content.
- 12 I construe the expression “subsidiary content identifier corresponding to itself” to be a subsidiary content identifier which acts as an identifier for the particular subsidiary content information. This subsidiary content information includes playback control information as well as the subsidiary content identifier and something called an “editing history identifier”.
- 13 The term “editing history identifier” is particularly difficult to construe. It appears to relate to an identifier which is unique to a particular combination of playback control

information and identifiers of primary content files which serve as editing material for a corresponding subsidiary content. It is not, despite its name, an identifier of a history of edits. In fact two sets of subsidiary content information which have the same combination of playback control information to play the same primary content would have the same editing history identifier regardless of whether or not the history of edits which produced each subsidiary content information were the same. Although the description is inconsistent in relation to whether the editing history identifier is unique to a particular editing history or to a particular combination of playback control information and identifiers of primary content files, the wording of the claims supports the latter view and this is how I believe the skilled person would construe the term.

- 14 Claim 2 refers to executing a response “equivalent to rejection of uploading”. I construe this to equate to transmitting an upload refusal message, which appears to me to be consistent with the description (see for example step S1205 of Figure 28).

(2) Identify the actual contribution

- 15 There is a difference of opinion between the examiner and Dr Davies as to whether the communication element of the claim should be considered as part of the actual contribution made by claims 1 and 5. The examiner excluded these features from his identification of the contribution. Dr Davies argued that they should be included, clarifying at the hearing that he was not arguing that the communication hardware was significant but rather that communication in a client/server context was important to the substance of the claimed invention. The examiner identified the contribution as:

A computer program to enable a computer to function as an audio/video editing system server comprising:

(a) storage means configured to store subsidiary content information, each item of subsidiary content information comprising (i) playback control information for instructing playback of primary content, (ii) a subsidiary content identifier and (iii) a unique history identifier; and

(b) deletion control means which, in the event that deletion of subsidiary content information is instructed, effectively deletes the relevant playback control information whilst retaining the subsidiary content identifier and unique editing history identifier.

- 16 In *Aerotel* the Court of Appeal provided useful guidance in relation to determining the contribution. In paragraph 43 of this judgment Jacob LJ said:

“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.”

- 17 Dr Davies argued that the problem solved by the present invention is to prevent users uploading content which had already been deleted. This problem only arises when the invention is being carried out on a distributed system with multiple users. The communication elements are therefore essential to the invention and should be included in the contribution. I however pointed out that this problem was only solved by the invention claimed in claim 2, not by the invention claimed in claim 1 alone. He also took me to *Protecting Kids The World Over (PKTWO) Limited* [2011] EWHC 2720 (Pat) to support his point that aspects of the processing fundamental to the working of the system shouldn't be excluded from the contribution even if they are already known in the prior art, a point I accept.
- 18 According to *Aerotel* I have to determine what, in substance, the inventor has really added to human knowledge, taking care to avoid merely stripping out known features of the claim. In reality I am not sure there is a great deal of difference between the contribution identified by the examiner and the arguments made by Dr Davies. In the examiner's contribution, he makes it clear that the invention relates to a computer program which enables a computer to function as an audio/video editing system server. Whilst he has not explicitly included any communication elements, the implication of including the term "server" is that the invention sits on a network and therefore must be able to communicate over the network.
- 19 Having considered this matter I am inclined to agree with Dr Davies in relation to this point at least to the extent that the contribution made by the invention involves communications over a network, although I would point out that these communications take place in a completely standard manner. It seems to me that, in substance, what the invention claimed in claim 1 is really about is ensuring that identifiers identifying audio/visual content remain stored on a server even when the content to which it relates is deleted. I would therefore describe the contribution as follows:

A server networked to user terminals and able to communicate with these user terminals, the server including:

(a) storage means configured to store subsidiary content information, each item of subsidiary content information comprising (i) playback control information for instructing playback of primary content, (ii) a subsidiary content identifier and (iii) a unique history identifier; and

(b) deletion control means which, in the event that deletion of subsidiary content information is instructed, effectively deletes the relevant playback control information whilst retaining the subsidiary content identifier and unique editing history identifier.

- 20 In claim 2 the unique history identifiers are used to prevent the upload of content which is sufficiently similar not only to content which is still stored on the server but also to content which was stored on the server but has subsequently been deleted. There is no dispute as to the contribution made by claim 2. In this case the examiner has included the communication means in his identification of the contribution made by claim 2. I therefore identify the contribution of claim 2, dependent on claim 1, as follows:

A computer program to enable a computer to function as an audio / video editing system server comprising:

- (a) storage means configured to store subsidiary content information, each item of subsidiary content information comprising (i) playback control information for instructing playback of primary content, (ii) a subsidiary content identifier and (iii) a unique editing history identifier;*
- (b) communication means to send and receive subsidiary content information to and from user terminals over a network;*
- (c) deletion control means which, in the event that deletion of subsidiary content information stored in the storage means is instructed, effectively deletes the relevant playback control information whilst retaining the subsidiary content identifier and unique editing history identifier;*
- (d) Searching means to search as defined in claim 2, in response to an upload request for newly storing subsidiary content in the storage means having been received by the communication means; and*
- (e) Upload response means arranged to reject the upload request by transmitting an upload refusal message in the event that the search is successful.*

(3) Ask whether it falls solely within the excluded subject matter; (4) check whether the actual or alleged contribution is actually technical in nature

- 21 Dr Davies based his argument that the invention did not fall solely within the excluded subject matter on three key points. The first two of these relate to comparisons with earlier cases. The third relates to the signposts set out by the judge in *AT&T Knowledge Ventures' Application and CVON Innovations Ltd's Application* [2009] FSR 19.

Comparison with Vicom

- 22 Dr Davies first took me to *Vicom (T 0208/84)*, a well known EPO case often referred to by the UK courts in relation to its teaching on technical contribution. He took the view that the Board of Appeal considered image processing to equate to the manipulation of a physical entity which was why they did not consider the invention in *Vicom* to be excluded subject matter. He submitted that the UK courts have consistently approved the decision in *Vicom*. Dr Davies then argued that the present case involved the manipulation of audio/visual data and therefore, by analogy with *Vicom*, made a technical contribution and was not therefore excluded from patentability.
- 23 I am not convinced by Dr Davies' submissions on this point. It seems to me that the contribution in *Vicom* is an improved method of image processing which the Board of Appeal felt provided the necessary technical contribution in relation to the specifics of the case. This resulted in a faster way of processing an image which involved fewer computations than was necessary for conventional convolution techniques whilst still providing a good approximation of the results achieved by those conventional techniques.
- 24 Dr Davies argued that the editing history identifier was a representation of audio/visual data and manipulation or processing of these identifiers therefore

equated to manipulation of the image itself. He referred to the hearing officer's decision in *Hewlett-Packard Development Company, L.P. (BL O/466/11)* ("HP") in support of his argument. In *HP* the invention was concerned with creating a searchable database by automatically identifying various aspects of an image to enable descriptive words to be assigned to that image. The hearing officer found that this related to a simplified representation of the image and held that the claimed invention was not excluded. In the present case, however, the editing history identifier is not a simplified representation of an image in the sense of the *HP* case. Rather it serves as an identifier uniquely obtained from the playback control information and identifiers of primary content files serving as original editing material for the corresponding subsidiary content. There is no information in the claims as to how this identifier is created. Its chief purpose is to act, together with the subsidiary content identifier, as a marker which remains on the server in the event that the subsidiary content information is deleted from the server. Moreover there is no disclosure of any image processing steps or audio/visual data processing steps in the claimed invention. Rather the invention relates to the manipulation of identifiers in order to store an identifier in the server when subsidiary content is deleted. The contribution made by claim 1 does not therefore involve processing data representing a physical entity in any technical sense, but, as I have said above, to a means for deleting such data. This is not in my view a technical process.

- 25 The contribution made by claim 2 includes features relating to rejecting an upload request for subsidiary content which has been deleted. There is no image processing taking place here in any sense analogous to the invention to which *Vicom* relates, or to the invention of *HP*. Rather it relates to administering the data on the server.

Comparison with Protecting Kids The World Over (PKTWO)

- 26 Dr Davies also argued that the present invention was analogous to that of *Protecting Kids The World Over*. His arguments were more relevant to the invention claimed in claim 2 than to that claimed in claim 1, although he pointed out that claim 1 supports claim 2. *PKTWO* related to a means for monitoring electronic communications to ensure users (e.g. children) are not exposed to inappropriate content or language. Provision is made for generating an alert notification for users (e.g. a parent), for example by way of an email or SMS message. The parent is then able to send a remote response command of one of specified types and the computer will respond accordingly. The judge considered that an improved alarm, i.e. a more rapid and reliable alarm notification, was part of the contribution of the claim under consideration and concluded that this involved a technical contribution.
- 27 Dr Davies commented that in *PKTWO* the judge found that the invention was a faster more reliable alarm system even though the physical alarm elements appeared to be part of the prior art. He argued that this was similar to the present case, which relates to a faster more reliable system for controlling uploads and downloads of audio/visual data. Just as in *PKTWO* the invention lies in preventing dissemination of inappropriate content to children, the present invention lies in preventing the dissemination of content to other users. It does this by preventing the content in question from being uploaded once it has been deleted.
- 28 In *PKTWO* the judge explicitly stated that his judgment was made on the very specific facts of the case before him (see paragraph 35 of the judgment). The

invention of *PKTWO* related to a faster more reliable alarm system. In the present case the invention relates to method of preventing uploading of deleted content. Despite Dr Davies' submission that both relate to preventing dissemination of content, I am not convinced that there are any real technical similarities between the two inventions. The inventions have very different purposes and outcomes and operate in very different ways. I do not therefore consider that *PKTWO* assists me in determining whether the contribution made by the present invention either as claimed in claim 1 or as claimed in claim 2 lies solely in the excluded fields.

The AT&T/Cvon signposts

29 Dr Davies' third argument in relation to step 3 of the *Aerotel* test was based on the signposts set out by Lewison J in *AT&T Knowledge Ventures' Application and CVON Innovations Ltd's Application* [2009] FSR 19 in which he said in paragraph 40:

40. As Lord Neuberger pointed out, it is impossible to define the meaning of "technical effect" in this context, but it seems to me that useful signposts to a relevant technical effect 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 there is an increase in the speed or reliability of the computer;

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

30 Dr Davies submitted arguments in relation to the first and fourth signposts. He argued that in the present case there is a technical effect on a process carried on outside the server. This effect is the prevention of subsidiary content information which has been deleted being re-uploaded. Dr Davies referred to *Gemstar-TV Guide International v Virgin Media Ltd* [2010] RPC 10 in support of his arguments.

31 In *Gemstar* the so-called "transfer patent" related to an electronic programme guide whereby a television programme recorded on a first medium may be selected for secondary recording onto a second medium. Mann J held that this invention was patentable subject matter because it did something which could be regarded as a physical effect, namely the initiation of movement of data from one disk to another (both programme content and metadata). It is important when considering this case to bear in mind the context, namely electronic programme guides for television services. In my view the conclusion reached by Mann J in this case is very specific to that context. He highlighted that the effect was not an effect outside the system but considered it to be patentable subject matter for other reasons. The relevance of the

Gemstar case to this signpost is therefore not clear. Moreover this demonstrates the difficulties in applying this signpost to distributed or networked systems. What should be considered the “computer” in the context of determining whether there is an effect on a process outside the computer? The signposts must be considered in context and in some cases are only of limited help in determining whether a contribution lies wholly in the excluded field or whether it makes a technical contribution.

- 32 Dr Davies asserted that in the present case there is a physical effect outside the computer, namely the prevention of uploading certain subsidiary content information, and submitted that this effect was technical. He argued that the present invention controls when content is uploaded and is therefore controlling the transfer of audio/visual data between client and server, similar to the *Gemstar* case, and therefore should be considered patentable subject matter for that same reason that the invention in *Gemstar* was. This argument seems to me to apply to the contribution made by claim 2 rather than that made by claim 1. The contribution made by claim 1 relates to what happens when content is deleted rather than to what happens when an attempt to upload content is made.
- 33 I am not convinced that the present invention claimed in either claim 1 or claim 2 has a technical effect taking place outside the computer in a similar sense to that of *Gemstar*. In the case of claim 1 the contribution relates to retaining identifiers relating to audio/visual data on a server in the event that the subsidiary content information to which those identifiers relate is deleted from the server. This in my view is not a technical effect on a process carried on outside the computer but rather part of a process carried out within the computer by a computer program, namely a method of controlling the deletion of content from a database on a server. The contribution relates entirely to administering data in a database system which in my view lies wholly in the field of programs for computers.
- 34 In the contribution made by claim 2, when an upload request is made a search is carried out to determine if there is subsidiary content information either in the database or which has been deleted from the database which is sufficiently similar to the content for which the upload request has been made. If a match is found then upload of that content is prevented and a rejection message is transmitted. It is not clear whether this could be considered an effect on a process outside of the computer. It would be legitimate to consider the client-server system as a whole as a computer. In any case I am not convinced that the effect in question is a technical effect. Rather, as a computer program which determines whether data may be uploaded to a server, it relates to how data is administered and managed in a database on a server and therefore seems to me to be one which lies entirely in the field of a program for a computer as such. The fact that the content is audio/visual data does not alter this conclusion as I have already commented that the audio/visual data is not manipulated in any technical sense by the claimed invention.
- 35 In relation to the fourth signpost, Dr Davies argued that the server operating in the manner described in the main claims is a better server. His arguments in primarily focused on claim 2, although he argued that the invention claimed in claim 1 supports that claimed in claim 2. He submitted that a server arranged to prevent re-uploading of subsidiary content information in the manner of claim 2 was a better, faster, more reliable computer, and referred to *Symbian* in support of this argument. He considered that the server of claim 1 would be a specialist server built for this

application and contrasted this with a general purpose computer running a number of applications. I do not agree with these submissions. The invention could easily be implemented on a general purpose computer and even if it was not, the invention does not improve the workings of the server itself at the architectural level. Instead the improvements lie at the application level, namely in the way the subsidiary content information is deleted and then re-upload of that information is prevented. It is not akin to the invention of *Symbian*, in which the improvements to the operation of DLLs could have potentially improved the operation of any application running on the computer. I do not therefore consider the present invention to be a better more reliable computer in the sense of the fourth signpost.

Conclusion

- 36 In conclusion, following a consideration of all Dr Davies' submissions and the cases he brought to my attention, I consider that the contribution made by the invention claimed in claims 1 and 5 and in claim 2 lies solely in the excluded field as a program for a computer as such. The contribution lies in administering data on a server in terms of controlling deletion of and uploading of that data. These are activities which lie entirely in the field of programs for computers and there is no technical contribution. The fact that the data happens to be audio/visual data does not impart a technical contribution and the audio/visual data itself is not manipulated or processed in any technical sense. Having found that the contribution lies solely in the excluded field, I therefore refuse the application.

Appeal

- 37 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

BEN MICKLEWRIGHT

Deputy Director, acting for the Comptroller