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Datasheet for the decision of 25 February 2015

Case Number: T 1834/10 - 3.5.01

Application Number: 01941962.1

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Title of invention:
DYNAMIC SELECTION OF IMAGES FOR WEB PAGES

Applicant:
eBay Inc.

Headword:
Image selection/EBAY

Relevant legal provisions:
EPC 1973 Art. 56
EPC Art. 52(2)(c), 52(2)(d)
RPBA Art. 13(1), 13(3)

Keyword:
Inventive step - (no)

Decisions cited:
T 1173/97, T 0641/00, T 1784/06, T 1670/07, T 1741/08, T 1755/10

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Case Number: T 1834/10 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 25 February 2015

Appellant: (Applicant)	eBay Inc. 2145 Hamilton Avenue San Jose, CA 95125 (US)
Representative:	Curley, Donnacha John Hanna Moore & Curley 13 Lower Lad Lane Dublin 2 (IE)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 30 March 2010 refusing European patent application No. 01941962.1 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman P. Scriven
Members: K. Bumes
S. Fernández de Córdoba

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse European patent application No. 01941962.1, *"Dynamic selection of images for web pages"*, published as

A1: WO-A1-01/95297.

II. The examining division considered that a computer-readable medium according to claim 16 of the main request and auxiliary request then on file lacked novelty (Article 54(2) EPC 1973) over

D1: Reynolds, S.: *"htmlGallery Suite"*, Frontier Scripting, 16 February 1999, pages 1 to 5, XP2394195, retrieved from the Internet on 9 August 2006, www.spinwardstars.com/frontier/f4/htmlgallery.html

A method for dynamically selecting images according to claim 1 of the main request was regarded as obvious to a skilled person setting out from D1 (Article 56 EPC 1973). The auxiliary request was considered to add only an obvious implementation of a variable presentation of images.

III. In the statement setting out the grounds of appeal, the appellant requested that the decision to refuse be set aside and that a patent be granted on the basis of a main request or a first or second auxiliary request, all requests filed with the statement of grounds.

The appellant argued that in D1 all images matching a content category were selected from a group of images. Thus, the number of selected images in D1 depended on the available images and was neither "pre-determined" nor "specified in the instruction", contrary to the requirements of claim 1.

IV. The Board appointed oral proceedings, as requested on an auxiliary basis, and expressed its preliminary opinion that a selection of images for inclusion on a web page (main request) did not serve a technical aim but related to a presentation of information driven by the needs of an online shop manager. The technical implementation seemed to rely on normal script programming (exemplified by D1).

Selecting images randomly (first and second auxiliary requests) seemed to be part of the non-technical requirement. Regarding the implementation of a random selection, the Board referred to a document cited in the Supplementary European Search Report:

D10: Maller, Joe: *"Random Images with JavaScript"*, 1 May 1997, pages 1 to 4, XP2394221, retrieved from the Internet on 9 August 2006, www.joemaller.com/business/webtools/javascript/random_image.html

Therefore, the Board doubted that any of the three versions of claim 1 involved an inventive step (Article 56 EPC 1973).

V. In response to the summons, the appellant filed three amended sets of claims (main request, first and second auxiliary requests) on 26 January 2015.

(a) Claim 1 according to the main request reads:

"1. A computerized method for dynamically selecting images for a markup language document comprising:

encoding an instruction in the markup language document, the instruction identifying a utility program that dynamically selects an image for insertion into the document;

preparing the markup language document for display;

automatically invoking the utility program when the instruction is processed;

selecting a pre-determined number of images from a group of images, the pre-determined number being specified in the instruction, each selected image having at least one predefined data parameter associated with an item represented in that selected image; and

placing the pre-determined number of images in the markup language document at locations defined in the instruction."

(b) Claim 1 according to the first auxiliary request reads:

"1. A computerized method for dynamically selecting images for a web page to provide a change of images when the web page is regenerated; the method comprising:

encoding an instruction in a hypertext markup language document, the instruction identifying a utility program that dynamically selects an image for insertion into the web page;

preparing the hypertext markup language document for display as a web page;

automatically invoking the utility program when the instruction is processed;

randomly selecting a pre-determined number of images from a group of images, the pre-determined number being specified in the instruction, each selected image having at least one predefined data parameter associated with an item represented in that selected image;

validating the selected images against validation criteria, the validation criteria comprising determining whether the image has been recently used in

a web page, or is a duplicate of an already selected image;

substituting a different image for an image that fails the validation; and

placing the pre-determined number of images in the web page at locations defined in the instruction."

(c) Claim 1 according to the second auxiliary request reads:

"1. A computerized method for dynamically selecting images for a web page, to provide a change of images when the web page is regenerated; the method comprising:

determining a number of images to display in the web page from an instruction embedded in a markup language document for the web page;

obtaining a set of random numbers using a random number generator, the set of random numbers containing a plurality of random numbers, a number of the plurality of random numbers being equal to the determined number of images;

retrieving images from a group of images stored in a data structure using each random number as an index to the data structure, each retrieved image having at least one data parameter associated with an item represented in that retrieved image;

validating the retrieved images against validation criteria, the validation criteria comprising determining whether the image has been recently used in a web page, or is a duplicate of an already selected image;

retrieving a different image for an image that fails the validation;

determining a location in the web page for each of the retrieved images from the instruction embedded in the markup language document for the web page; and

placing the retrieved images in the web page, the retrieved images being placed in the locations defined in the instruction."

VI. At the oral proceedings before the Board, the appellant emphasised that the application provided an efficient and simple way of populating a web page with a selection of images: the number of images to be displayed and the locations for display on a screen were included in a single instruction embedded in a virtual representation (e.g. markup language document) of the web page. A skilled person setting out from D1 would have to deal with an unpredictable number of images and to define locations for those images on the screen.

An automatic selection of a predetermined number of images was particularly advantageous when a web page was to be regenerated with variable content based on a random selection of images (auxiliary requests).

Therefore, the appellant requested that the decision under appeal be set aside and a patent be granted on the basis of the main request or the first or second auxiliary request filed with the letter of 26 January 2015.

Reasons for the Decision

1. The application sets out from the following background (A1, page 1): "Images are frequently used on World Wide

Web (web) pages as illustration and to make the pages more attractive. Both purposes are particularly important when the Web site displaying the pages is a business. A user is more likely to explore a web site that shows images of the items for sale. In a Web-based business, such as an auction site, in which the inventory turns over rapidly, regenerating one or more web pages to display new images is especially important. However, choosing the new images to display is currently a manual process and thus cannot be accomplished as rapidly as may be desirable. Furthermore, once the images are selected, they must be integrated with the other content on the web page. Therefore, it would be advantageous to provide for the dynamic selection of images for web pages and for the automatic integration of the selected images to permit frequent and rapid modifications of the web pages."

2. In its most general aspect (original claim 1), the application proposes a dynamic selection of images for a mark-up language document (such as a web page) and an automatic integration of the selected images in the document (or web page). The mark-up language document includes an instruction (or "widget tag", A1, centre of page 5) identifying a "utility program" (gallery widget "Home Page Gallery") which is invoked when the web page is being processed for display. The utility program selects a pre-determined number of images from a group or category of images ("Gallery", bottom of page 4, top of page 5) and places the selected images on the web page. The number (N) of images and their locations (coordinates X, Y, Z, R, C) on the web page are specified in the instruction.

According to original claim 13, the images may be selected at random (see also Figure 3A, steps 303, 305

as described at page 7 of A1), in particular by using random numbers as an index into a group of images. As set out on page 7 of A1, before a selected image is displayed, it may be validated against several criteria: if the image has expired, is not an appropriate category, has been recently used, or is a duplicate of an already selected image, then another image is retrieved from the image gallery (pool) to replace it.
The application emphasises that its concept is not tied to any particular programming language but a variety of programming languages may be used to implement its teachings (A1, top of page 7).

Main Request

Article 56 EPC 1973 - Inventive step

3. In the light of Article 52(1)(2)(3) EPC, Article 56 EPC 1973 requires a non-obvious technical contribution. Contributions not achieving any technical effect do not enter into the examination for an inventive step (T 641/00-*Two identities/COMVIK*, Headnote 1, OJ EPO 2003, 352; T 1784/06-*Classification method/COMPTEL*).

4. Against the acknowledged *"Background of the Invention"* (A1, page 1), the contribution provided by the application has non-technical and technical aspects: a web page is made more attractive to potential customers by presenting images in a lively manner, and the images to be presented are selected and displayed automatically so that the presentation can be changed rapidly.

5. A web page designer may consider various approaches of selective content presentation as promising with

respect to attracting customers' attention. However innovative an attractive content selection may be, it relates to a presentation of information which is *a priori* non-technical (Article 52(2)(d) EPC), even if lowers a user's cognitive burden (T 1741/08-*GUI layout/SAP*) or prompts the user to start some technical action (broken technical chain, T 1741/08, T 1670/07-*Shopping with mobile device/NOKIA*).

The desire to present a selection of images, to limit the selection to a predetermined number of images and to present the selected images in some preferred layout is a non-technical aim.

The meaning of the display data does not convey any technical character to the presentation. Effects resulting from an image presentation depend on the user's perception and/or constitute indirect technical effects and/or relate to administrative and economic aspects.

6. The only aspect that can enter into the examination for an inventive step is a technical implementation of the desired image presentation. The appellant has argued that a single software instruction (embedded in the markup language document or web page) conveys both the number of images to be selected and the locations of the images on the screen and, thus, enables a simple and efficient (re-)generation of the web page.

7. However, program elements (tags, widgets) for transferring parameters from a markup language document to a page-generating program (e.g. browser) are well-known and are only used by the present application for their conventional purpose. The application leaves programming details to the skilled reader.

D1 shows an example of how a script "Index()" receives a parameter from another program. Like the keywords "inKey" in D1, a desired (maximum) number N of images to be selected would be passed to the program that selects the images. Specifying N in the instruction that calls the script would have been a matter of normal programming skill. In D1, "InKey" is provided as an argument to "Index()", so it would have been obvious to do the same with other paramaters such as the number N of images or their locations/coordinates.

8. It may be added that the Board has general doubts about whether a piece of software serving a non-technical purpose (presentation of information) can be considered as a technical implementation; such software rather constitutes a computer program as such (Article 52(2) (c) EPC) as it fails to provide any further technical effect beyond the elementary interaction between software and hardware (T 1173/97-*Computer program product/IBM*, OJ EPO 1999, 609). The combination of two types of non-inventions (presentation of information, computer program) is not enough to define a technical contribution (T 1755/10-*Software structure/TRILOGY*, "software implementation fallacy").

9. Therefore, the Board judges that the method as defined in claim 1 does not involve any inventive step (Article 56 EPC 1973).

First Auxiliary Request

10. Claim 1 according to the first auxiliary request specifies a way of changing the web page: the images to be displayed are selected randomly. To avoid any repeated or duplicated display of images, a validation

step is introduced which substitutes a different image for an image that fails the validation.

11. Again, the selection and validation concept is not driven by any technical reason but by the desire of a web shop owner to make the web page more attractive to prospective customers by presenting a lively and varied display of images.

12. On the implementation side, random number generators were well-known, as acknowledged in the application (A1, page 7, paragraph 2) and as exemplified by D10 (page 1, line 15: *"When the page containing this [Java] script is loaded, it displays an image picked at random from an array of image names [ImageList]"*). Where N images have to be selected (as part of the non-technical aim), an obvious implementation may use the random selection process of D10 N times and pass the parameters "N" and "location" directly in the <script> tag.

13. If a repeated or duplicated display of images is considered unattractive (a non-technical criterion), the randomly selected candidate images obviously need to be checked for repetitions or duplications. Such a computerised test is a matter of routine to the skilled person. This finding is confirmed implicitly by the present application which describes the validation only in abstract, functional terms (see Figure 3A).

14. Therefore, the first auxiliary request fails on the same ground (Article 56 EPC 1973).

Second Auxiliary Request

15. Claim 1 according to the second auxiliary request additionally specifies how the random selection of images is performed: a set of random numbers is generated and each random number is used as an index to the data structure storing a group of images (see also A1, page 7, paragraph 2).

16. Although the most recent amendment to the second auxiliary request was made at a late stage of the appeal procedure (after oral proceedings had been arranged) and related to a feature ("index") extracted from the description, the Board admitted the second auxiliary request into the procedure as the amendment did not raise the complexity of the subject-matter and did not jeopardise procedural economy (Article 13(1)(3) RPBA).

17. As mentioned before (in relation to the first auxiliary request), selecting images randomly from a pool of images may, obviously, be based on a random number generator. If the pool of images is stored in a database (as is usual in a computerised environment), an obvious access to the digital memory is via its numerical addresses based on the random numbers. Thus, any way of mapping the random numbers to the memory addresses provides an obvious "index" which falls within the terms of claim 1.

18. Therefore, the second auxiliary request fails on the same ground (Article 56 EPC 1973).

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek P. Scriven

Decision electronically authenticated