Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 7 March 2014

Case Number: T 0631/08 - 3.5.01

Application Number: 01307626.0

Publication Number: 1197902

IPC: G06F17/60

Language of the proceedings: EN

Title of invention:
Information processing apparatus, system and method, and recording medium

Applicant:
Sony Corporation

Headword:
Improving image quality/SONY

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - mixture of technical and non-technical features (no)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0631/08 - 3.5.01

D E C I S I O N
of Technical Board of Appeal 3.5.01
of 7 March 2014

Appellant: (Applicant)	Sony Corporation 7-35 Kitashinagawa 6-chome Shinagawa-ku Tokyo 141 (JP)
Representative:	Jackson, Jonathan Andrew D Young & Co LLP 120 Holborn London EC1N 2DY (GB)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted on 24 July 2007 refusing European patent application No. 01307626.0 pursuant to Article 97(1) EPC 1973.**

Composition of the Board:

Chairman: S. Wibergh
Members: R.R.K. Zimmermann
P. Schmitz

Summary of Facts and Submissions

I. European patent application number 01307626.0 claims priority from a Japanese patent application filed on 8 September 2000 for an information processing apparatus and method for providing content data to a terminal device.

II. The examining division refused the application pursued by the applicant on the basis of a main set of claims and a further limited auxiliary set of claims. According to the reasons for the decision given in writing and posted on 24 July 2007, neither the main set nor the auxiliary set of claims included subject matter inventive over prior art document D1 (WO 00/02389 A1 published in January 2000). The claimed invention, as argued in the decision, was distinguished from the prior art by "analysis means (76) for analysing a preference of a target user on the basis of the input information of a similar user" (claim 1 of the main request) and "the added feature of 'value added content'" (claim 1 of the auxiliary request). The invention was to be considered as an obvious computer implementation of non-technical business rules. Profiling data of similar users for determining preferences and giving recommendations on the basis of such information did not solve any technical problem. Speeding up the process of sending data to users, an advantage promoted by the applicant, was at best a side-effect of the implementation of the business rules.

III. The appellant (applicant) lodged an appeal against the decision of the examining division on 10 September 2007, paid the appeal fee on 12 September 2007 and filed the grounds of appeal including a new set of

claims on 23 November 2007. In preparation of oral proceedings summoned by the Board, the appellant filed by letter dated 5 February 2014 two sets of claims as main request and 1st auxiliary request, respectively.

IV. In the oral proceedings held on 7 March 2014, the appellant withdrew his former main request and declared his former first auxiliary request, filed with letter dated 5 February 2014 to be his main and sole request. The appellant then requested that the decision under appeal be set aside and that a patent be granted on the basis of this new main request.

V. Claim 1 reads as follows:

"An information processing apparatus for providing content data to a terminal device, said information processing apparatus comprising:
content data storage means (71) for storing a plurality of pieces of content data;
communication means (73) for transmitting the content data stored in said content data storage means to a plurality of terminal devices (1) and for receiving input information of each user for the transmitted content data; and
input information storage means (75) for storing said input information received by said communication means for each user;
the apparatus being characterised by:
analysis means (76) for analysing a preference of a target user on the basis of the input information of a similar user, which resembles the input information of said target user stored in said input information storage means; and

processing means (72) for processing content data itself to be transmitted to said terminal device into value-added content for said target user according to the analysis results by said analysis means, wherein said content data storage means (101) stores a plurality of pieces of image data, and said communication means (103) receives positional information within said image data indicated by each of said users, said positional information indicating the centre of an area of said image data comprising features which are of interest to each of said users, and said analysis means (106) comprises extraction means for extracting said positional information of said similar user, which shows that an image area comprising features resembling the features comprised within an image area indicated by said positional information of the target user, stored in said input information storage means (105), is indicated, and said processing means (102) improves the image quality of a part of the image data specified on the basis of said positional information of said similar user, extracted by said extraction means (106), more than the image quality of the other parts of the image data."

VI. According to the appellant, the subject matter of claim 1 involved an inventive step over the prior art. The claimed invention provided an innovative way of choosing the parts of an image which were likely to be of most interest to a (target) user and for which the quality should be improved. These parts of the image were specified on the basis of the positional information of a similar user. The positional information of the similar user showed an image area comprising features resembling the features comprised within an image area indicated by the positional information of the target user. The positional

information and features of interest were determined by the analysis means that analysed the click data from the target user as well as the click data from a similar user, i.e. from a user having the same preferences. Improving only specific parts of the image had the technical effect and advantage of allowing the amount of image data to be transmitted to be reduced whilst, at the same time, ensuring that features of the image data which were likely to be of interest to the target user were maintained in high-quality. This went above and beyond the common general technical knowledge related to image quality and data reduction and the teachings provided by the cited prior art. Document D1, cited as the closest prior art, was merely related to the transmission of individually targeted advertisements; it did not provide any form of image processing affecting the image quality, let alone the specific image quality processing arrangement of the present invention.

Reasons for the Decision

1. The appeal, although admissible, is not allowable for lack of inventive step in the subject matter of claim 1, in particular, as already decided by the examining division in the first instance proceedings.

2. Claim 1 defines an information-processing apparatus for providing content data to a terminal device, i.e. essentially a content server. Its functions encompass, in a first stage, the storage of features of image data which are of interest to certain users connected via a terminal device to the content server, including an exemplary "target user" and a "similar user" as defined

in the claim. Subsequently, this information is used to improve the image quality of a part of an image transmitted to the target user. The improved image part comprises features which resemble those that have been found to be of interest to the similar user, and which can thus be assumed to be of interest to the target user. The improvement is relative, namely "more than" the image quality of the other parts of the image data. Hence, according to the appellant, a reduction of the amount of the image data to be transmitted to the target user is achieved since only the areas of interest have to be transmitted in high-quality.

3. Document D1 is undisputedly an appropriate starting point for assessing inventive step. It discloses an information processing apparatus (e.g. D1, figure 5: master server 1 in a content and data processing centre and D1, claim 1) that comprises a content data storage means (e.g. D1, claim 1, feature (a)), an input information storage means (e.g. claim 23, feature (b)), and a communication means (D1, figure 5, communication lines 15, T1, DS3 etc). According to a variant disclosed in D1, the content data provided to the terminal devices (D1: receiver equipped with an interactive receptor) are image data like graphics or slow motion video (see D1, page 5, line 18). The prior art system allows to insert information (text, entertainment material, etc) that is of specific interest for a user into the content data transmitted to the user (see e.g. D1, page 2, lines 1 to 8 and 15 to 18, and page 8, line 17 f. "the content server … process [sic] the insertion material, be it … information content as requested by users").

4. Present claim 1 defines, as differences to the prior art, a specific profiling of user preferences and a

processing step for improving image quality. The preferences of the target user for particular features of image data are determined by analysing the input information delivered from a similar user, i.e. by analysing and storing the input of another user who has similar interests as the target user regarding the features extracted from the image data.

5. Determining and storing user profiles is typically done for promotion and marketing purposes and does per se not involve the use of technical means or any other technical aspects. Compilation and analysis of data concerning human behaviour and interests are activities closely related to business methods which are excluded from patentability. The Board considers that such activities as profiling of human behaviour for promotion or other business purposes lack technical character and are as such not able to contribute to inventive step even if carried out as a computer implemented process. The appellant has argued that the invention provides an innovative way of choosing the parts of an image that are likely to be of interest to a user. The Board cannot accept this argument since the claimed process performs the same steps a human being might choose to take in the same circumstances, viz. collect information about users' interests (non-technical), group the users accordingly (non-technical), and present information to a target user on the assumption of similarities of personal interests (non-technical). Merely automating this process involved no inventive step.

6. There remains in claim 1 the step of improving the image quality. Unlike profiling, the improvement of image quality (resolution etc) is possibly, but not necessarily, a technical process. An improvement of

image quality for aesthetic purposes, for example, would normally not contribute to the technical solution of a technical problem and thus not qualify as technical in terms of a patentable invention. Present claim 1 defines that the image quality of the image parts likely to be of interest according to the target user's preferences is improved "more than the image quality of the other parts of the image data" (see the claim wording). Hence, the improvement is only a relative improvement between parts of the image, and can in fact be achieved by decreasing the quality of other parts of the image without any improvement of image quality at all (see eg dependent claim 8). Hence, the claimed processing means does not necessarily improve the technical image transmission and rendering process but is simply employed to attract the user's attention to certain information contents, i.e. a kind of "value-added content" as referred to in claim 1. The image improvement as defined in claim 1 is thus not a technical function or feature of the invention and does consequently not contribute to inventive step.

7. For these reasons, the technical contribution provided by the claimed invention to the prior art system of document D1 does not go beyond the normal computer implementation of a non-technical concept of user profiling and content presentation. The requirement of inventive step is thus not fulfilled.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

T. Buschek S. Wibergh

Decision electronically authenticated