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Datasheet for the decision of 26 June 2012

Case Number: T 0629/11 - 3.5.01

Application Number: 02748917.8

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Title of invention:
USER-SPECIFIC PERSONALIZATION OF INFORMATION SERVICES

Applicant:
Aalto University Foundation

Headword:
Personalization of data services/AALTO

Relevant legal provisions:
EPC 1973 Art. 56

Keyword:
"Inventive step - (no)"

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Case Number: T0629/11 - 3.5.01

D E C I S I O N
of the Technical Board of Appeal 3.5.01
of 26 June 2012

Appellant: (Applicant)	Aalto University Foundation PO Box 11000 00076 Aalto (FI)
Representative:	Kaukonen, Juha Veikko Kolster Oy Ab Iso Roobertinkatu 23 P.O. Box 148 00121 Helsinki (FI)
Decision under appeal:	**Decision of the Examining Division of the European Patent Office posted 30 September 2010 refusing European patent application No. 02748917.8 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: S. Wibergh
Members: P. Scriven
G. Weiss

Summary of Facts and Submissions

I. This appeal is against the Examining Division's decision to refuse European patent application 02748917.8, on the grounds that claims 1 and 10 of the sole request failed to comply with the requirements of Article 84 EPC 1973. The decision, in section entitled "Obiter Dicta", also indicated that the subject matter for which protection was sought had a "not technical nature."

II. In the statement setting out its grounds of appeal, the appellant argued that the Examining Division had committed a substantial procedural violation, inter alia because the written decision did not properly deal with the arguments it had presented:

> *the decision provides no indication of why the substantial arguments submitted by the applicant in the written submissions of 25 May 2010 in response to the summons to oral proceedings failed to persuade the Examining Division to withdraw the remaining clarity objections regarding the main request filed with the written submissions.*
>
> *The reasons for the decision of the Examining Division merely lists some allegedly unclear expressions without making any reference to the arguments submitted by the applicant on 25 May 2010.* The Examiner Division only makes a generic reference to arguments submitted in the Applicant's letter of 23 November 2010 *on page 4 of the decision. The arguments submitted on 25 May 2010 have apparently been ignored by the Examining Division.* [Appellant's emphasis]

III. At the same time, the appellant filed a new auxiliary request and presented arguments in favour of compliance

with Article 84 EPC 1973.

IV. The Board arranged for oral proceedings to be held. In an annex to the summons, it set out its preliminary view as follows.

There did not seem to be any procedural violation, except that the question remained open as to whether significant arguments had not been properly addressed in the written decision.

Several features of claim 1, according to both requests, were unclear, lacked support from the description, or were not sufficiently disclosed, so that there seemed to be a lack of compliance with the requirements of Articles 83 and 84 EPC 1973.

V. With the letter of response, data 4 May 2012, the appellant filed a new main request and new auxiliary requests 1 and 2. It also submitted a statement by one of the inventors, Mr Saari, and presented arguments regarding Articles 83 and 84 EPC 1973.

Claim 1 according the the main request read as follows.

> *1. A method of providing information services on Internet browser pages to users via the Internet, comprising*
> *personalizing information services on Internet browser pages in an information system of an information service provider connected to the Internet, the information system including an information content database (ICDB), in which actual parameters descriptive of the content of information services are arranged to be stored, and a user profile database (UPDB), in which*

actual parameters descriptive of the users of information services are arranged to be stored, and providing Internet browser pages with personalized information services to the users over the Internet, characterized by creating metadata files for use in the personalization, said creating further comprising the steps of:
creating a rulebase (RB) including the reaction impulses of a test user group to information services presented as stimuli via the Internet,
creating a database (lCS) descriptive of an information content space and including theoretical alternatives for the parameters descriptive of the content of the information services,
creating a database (UPS) descriptive of a user profile space and including theoretical alternatives for the parameters descriptive of the users of the information services,
creating a database (EA) descriptive of a reaction space and including theoretical alternatives for parameters descriptive of the reactions of the users of the information services, the database being created as an interaction of the database (ICS) descriptive of the information content space and the database (UPS) descriptive of the user profile space, the interaction being specified based on the reaction impulses defined in the rulebase (RB),
comparing the actual parameters descriptive of the content (ICDB) and the users (UPDB) of the information services with the theoretical parameters (ICS, UPS) to determine their correspondence,
creating and storing metadata files as a result of said comparison for at least one user of an information service and for at least one content of an information service based on the reaction impulses defined in the rulebase (RB), the metadata files modelling the

contents of information services, the way the content is presented, and individual users in such a manner that said metadata files enable statistically substantial ones of said reaction impulses to be caused to users when presenting data to users via information services, said method further comprising
collecting, during use of the information services by the users, data on the reactions of the users of the information services to the information objects presented;
updating the parameters of the information objects included in said user profile database based on the collected data; and
updating, based on the collected data, the rulebase linking together essential parameters of the user, information content and reaction.

In claim 1 according to auxiliary request 1, the final clauses have been deleted, so that the claim ends

1. ...
creating and storing metadata files as a result of said comparison for at least one user of an information service and for at least one content of an information service based on the reaction impulses defined in the rulebase (RB), the metadata files modelling the contents of information services, the way the content is presented, and individual users in such a manner that said metadata files enable statistically substantial ones of said reaction impulses to be caused to users when presenting data to users via information services.

In claim 1 according to auxiliary request 2, some clauses of claim 1 according to the main request are modified, as follows (emphasis added by the Board, showing the additional clauses).

1. ...
creating a rulebase (RB) including the reaction impulses of a test user group to information services presented as stimuli via the Internet, ***said creating comprising presenting information objects, which belong to the information content space and whose content and presentation are varied, to a statistically significantly large test user group, collecting data on the reactions of the test user group to said information objects, and storing the reaction impulses of the test user group to the presented information objects in the rulebase (RB) by linking together the essential parameters of the user, the information content and the reaction,***
...
creating a database (EA) descriptive of a reaction space and including theoretical alternatives for parameters descriptive of the reactions of the users of the information services, the database being created as an interaction of the database (ICS) descriptive of the information content space and the database (UPS) descriptive of the user profile space, the interaction being specified based on the reaction impulses ***linking together the essential parameters of users, information content and reactions and****defined in the rulebase (RB),*
...
creating and storing metadata files as a result of said comparison for at least one user of an information service and for at least one content of an information service based on the reaction impulses ***linking together the essential parameters of users, information content***

and reactions and *defined in the rulebase (RB), the metadata files modelling the contents of information services, the way the content is presented, and individual users in such a manner that said metadata files enable statistically substantial ones of said reaction impulses to be caused to users when presenting data to users via information services, said method further comprising*

...

VI. Oral proceedings were held as scheduled. The discussion centred on the issue of the technicality of the features defined in the various versions of claim 1, and its effects on the question of inventive step. During the proceedings, the appellant withdrew the allegation that the Examining Division had committed a procedural violation. The final requests were as follows.

That the decision under appeal be set aside, and that a patent be granted on the basis of the main request, or else on the basis of auxiliary requests 1 or 2, all of which were submitted with the letter dated 4 May 2012.

VII. The appellant's arguments, written and oral, so far as relevant, can be summarised as follows.

The skilled person was not a psychologist or linguist, but a planner of information systems; but that would include knowledge of user experience, including psychology. He might have knowledge of computational linguistics and be involved in automatic translation. In such a case, the technically skilled person, a computer scientist, would be provided with necessary linguistic information.

The invention was technical because it provides a machine which can apply statistical knowledge to arrive at

information content and a form of presentation which was matched to a user. That was achieved by providing the various databases. The databases should be understood as computer-implemented, because the invention provided information in Internet browser pages. The effect was not just to present information, but to provide a machine which was able to select different presentations.

The invention provided the user directly with the information he seeks, in the correct format. There was no need for further clicks to get the desired format. That resulted in less network traffic.

The fact that the invention made use of known elements did not mean there could not be an inventive step. Just as a system for controlling a motor might use known elements in a novel and non-obvious configuration, so the invention used known computer technology in a novel and non-obvious way.

Reasons for the Decision

Background

1. The invention concerns the presentation of information in an Internet browser, and the management of the information and the way it is presented, so as to evoke a desired response in the user. The range of desired responses is very large, but includes such things as feeling satisfied (because, for example, the information was provided quickly, was accurate, and was understandable) or clicking on an advert. Although the different versions of claim 1 under consideration suggest that a particular user should react in the desired way, the effect aimed at is

statistical: the particular user may or may not react in the desired manner, but users generally should be more satisfied or click more often on the advert.

2. In order to achieve that, a group of users is tested. They are presented with different information in different formats and their reactions are observed and noted. The test group is divided into psychological types (e.g. introverts and extroverts), and correlations are found. It might be found, for example, that extroverts prefer to receive information in audible form, whereas introverts prefer it in written form. Thus, there is psychological data on the test group, there are different combinations of information and presentation, there are the reactions of the test group, and there are correlations between user types, information and presentation, and reactions.

3. With division into psychological "types" and correlations between the types and reactions at hand, the information presented to a particular user can be manipulated. She is assigned a psychological "type" and then the information and its form of presentation are chosen, according to the correlations obtained from the test group. If the correlations indicate that an introvert is most likely to click on an advert if it is presented with blue text, then a user classified as an introvert will be shown the advert with blue text. That will not ensure that any particular user will click on the advert, but it might be expected that total numbers who do click will increase.

4. It is possible to monitor reactions of people as they use the system, and use them to update the correlations obtained from the test group.

The main request

5. The background, set out above, is based on the appellant's explanations. It is not immediately apparent from a reading of claim 1, because its terminology is somewhat obscure, but the Board is satisfied that it falls within the scope of the claim. For the reasons given below, the Board judges that the method according to claim 1 does not involve an inventive step because the claim covers subject matter which would have been obvious to the skilled person.

6. The method defined by claim 1 has the following steps, and the Board, following the appellant's explanations, interprets them as set out here.

Creating a rulebase:
The "rulebase", initially, stores the correlations between the psychological "types" of the test group and the reactions obtained to various combinations of information and presentation.

Creating a database which describes an information content space:
This database seems to store data about the information that can be presented to users, and how it can be presented. It seems to represent the sorts of information and ways or presenting it with which the system is designed to work. It does not actually contain the information, but seems, rather, to contain metadata in the sense that it describes information and presentations that might actually be stored somewhere else.

Creating a database which describes the user profile space:
Again, this does not seem to be the place in which user

profiles are stored. Rather, it contains metadata that describes the psychological "types" that the system is set up to recognize.

Creating a database which describes the reaction space:
As with the previous two databases, this seems not to be a place in which data on actual reactions are stored, but a place in which metadata about the reactions the system recognises is stored.

Comparing actual and theoretical parameters:
The idea seems to be that the user will be compared with the "user profile space" to determine where she fits into the classification, that is, what her psychological "type" is. Similarly, the information is compared with the classification in the "information content space", to determine what sort of information it is, that is, how it should be classified.

Creating metadata files:
This seems to be the storage of information which represents the classification of the user according to psychological "type", and a selection of information and form of presentation, in accordance with the correlations stored in the rulebase.

Collecting data on reactions during use:
This involves some form of monitoring of users' reactions as information is presented to them.

Updating the user profile database and the rulebase:
Here, the idea is that the reactions of the test group are not a perfect reflection of real users. The reactions of users as they interact with the system are used to supplement the data collected from the test

group.

7. As a method of manipulating information and its presentation, in order to affect the perceptions or behaviour of users, this is not technical. It is a form of applied psychology, and the field of application might be, for example, advertising or education. The underlying method as such, being non-technical, does not contribute to inventive step.

8. The method as claimed is technical, because it provides something "on Internet browser pages". The various databases need not be held on computers, and nor are any of the steps defined as being carried out by a computer or any other technical means.

9. The skilled person is faced with the task of implementing the non-technical method of selecting and presenting information "on Internet browser pages". There is an inventive step if and only if it would not have been obvious to provide the technical implementation defined in the claim. As it stands, the technical implementation amounts to the provision of information on an Internet browser page. Beyond the fact of being an Internet browser page, no technical details are defined. The Board considers the provision of information on Internet browser pages as such well-established prior art at the priority date (20 August 2001) that no documentary evidence is needed.

10. The appellant considers the databases to be stored on computers, and the various steps to involve technical steps. That is an interpretation that the description supports, although claim 1 is not so limited; the Board, however, does not find that the outcome of inventive step would be different, even if he appellant's interpretation

were followed. Claim 1 does not define any particular implementation of the databases, beyond the sorts of data they store. As a result, the invention would have been obvious if the skilled person would have found the provision of some database obvious, no matter what form it took. It is inherent, in the underlying non-technical method, that data needs to be gathered, stored and accessed. Databases were well known at the priority date and were designed with just such storage and access in mind. The same goes for any technical means of gathering data, given that the application makes no pretence of anything new in that regard.

11. The appellant's argument that the invention solved the technical problem of providing a user more quickly with the correct information in the correct format does not help. The argument is that a user who falls into a group that has a preference for (say) audio will be directly presented with information in audio format, whereas, in prior systems, he would first have been presented with (say) text and the possibility of subsequently selecting audio. The provision of information is not in itself a technical issue. The manner of presenting information may involve technical issues, for example when it is specifically adapted to a particular technical means of presentation, but that is not the case here. As claim 1 puts it, there is a selection of "the way the content is presented", and that is simply too broad to have technical implications. Thus, the effect for which the appellant argues belongs to the pre-technical stage. That is, it is already inherent in the non-technical method for which the skilled person has to find a technical implementation.

12. For those reasons, independently of any originality of the underlying method of influencing perception or behaviour, the Board concludes that the method defined in claim 1

does not involve an inventive step.

Auxiliary request 1

13. Claim 1 differs from that of the main request in that a number of steps have been omitted. The steps in question are those that relate to the collection of data during use, and the use of those data to update the user profile database and the rulebase.

14. Thus claim 1 has been broadened. There are no technical features which were not defined in claim 1 according to the main request. As a result, its subject matter is no less obvious than that of claim 1 according to the main request.

Auxiliary request 2

15. Claim 1 differs from that of the main request in that some steps have been added so as to define how the data for the rulebase are gathered.

16. That is a pre-technical difference, i.e. part of the underlying non-technical method. It makes no difference to the assessment of inventive step.

Conclusion

17. Neither the main nor either of the auxiliary requests can be allowed, because, in each case, the subject matter of claim 1 lacks inventive step (Article 56 EPC 1973).

Order

For these reasons it is decided that:

The appeal is dismissed

The Registrar: The Chairman:

T. Buschek S. Wibergh

Decision electronically authenticated