Datasheet for the decision
of 2 October 2007

Case Number: T 0740/05 - 3.5.01
Application Number: 00960040.4
Publication Number: 1214677
IPC: G06F 17/60
Language of the proceedings: EN
Title of invention:
Attention management system and method
Applicant:
Accenture LLP
Opponent:
-
Headword:
Attention management/ACCENTURE
Relevant legal provisions:
EPC Art. 56
Keyword:
"Inventive step (no)"
Decisions cited:
T 0125/04
Catchword:
Cf. points 2.4 to 2.6 of the Reasons
Case Number: T 0740/05 - 3.5.01

DECISION
of the Technical Board of Appeal 3.5.01
of 2 October 2007

Appellant: Accenture LLP
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Representative: TBK-Patent
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 28 December 2004 refusing European application No. 00960040.4 pursuant to Article 97(1) EPC.

Composition of the Board:
Chairman: S. Steinbrener
Members: S. Wibergh
          G. Weiss
Summary of Facts and Submissions

I. This appeal is against the decision of the Examining Division to refuse European patent application No. 00960040.4 (published as WO-A-01/18723).

II. The Examining Division held that the subject-matter of independent claim 13 as filed with letter dated 2 November 2004 did not involve an inventive step and hence did not meet the requirements of Article 52(1) EPC.

III. In the statement setting out the grounds of appeal, the appellant argued that the invention provided a presentation and quantification of abstract data relating to the attention human beings paid to various attention items. It achieved a technically utilizable conversion of the originally abstract content into quantifiable information and therefore represented a technical contribution (p. 4). A further technical effect was that information about the attention could be made visible (p. 5). Also the collection and manipulation of data were technical processes, especially as the data was in the form of numerical values (p. 6).

IV. By a communication dated 15 March 2007 the Board summoned to oral proceedings. In the accompanying annex, decision T 125/04 - Assessment system/COMPARATIVE VISUAL ASSESSMENTS (dated 10 May 2005, not published in the OJ EPO) was cited.

V. On 27 August 2007 the appellant filed a set of amended claims 1 to 23 and submitted further arguments.
VI. Claim 1 of this set reads:

"A method in a computer system for monitoring and representing attention allocation, the method comprising:
(a) receiving identification of a plurality of attention items that receive attention from a user;
(b) prompting the user, for each attention item, with a plurality of questions, wherein each of the plurality of questions is associated with one of a plurality of attention types;
(c) collecting response data from the user for each of the plurality of attention items, wherein the response data is received from the user as numerical values and the numerical values are stored;
(d) collecting time response data representative of an amount of time spent on each of the plurality of attention items;
(e) manipulating the numerical values to derive three attention type values from the response data;
(f) calculating time values for each of the plurality of attention types [sic] from the response data; and
(g) mapping each of the attention items as icons onto an attention allocation diagram based on the attention type values, wherein the attention allocation diagram includes two coordinates and represents the response data as the icons defined by two of the numerical attention type values of each attention item while having the third numerical attention type value of each attention item converted into colours, wherein the calculated time values are presented as a magnitude of an icon size."
As to feature (f), the appellant has confirmed that the expression "attention types" in the claim as filed should be understood as "attention items".

VII. Oral proceedings were held on 2 October 2007. The appellant argued that even if designing diagrams was in general a non-technical activity, the invention's use of a two-dimensional diagram to present four-dimensional data was a technical and original approach. Its design, and in particular the unusual use of the icon size to represent time, required technical considerations by a programmer.

VIII. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of claims 1 to 23 filed with the letter received on 27 August 2007.

IX. At the end of the oral proceedings the Chairman announced the decision.

**Reasons for the Decision**

1. The invention

Claim 1 is directed to a method for "monitoring and representing attention allocation". Data furnished by respondents (eg employees) concerning "attention items" (eg different professional activities) is used to calculate values for "attention types" (eg captive attention, voluntary attention, aversive attention). Three attention type values and one time value are calculated for each attention item and mapped into a
two-dimensional diagram as icons. The icon coordinates correspond to two of the attention type values. The third attention type value is represented by the colour of the icon and the corresponding time value by its size (see eg fig.3 and associated text).

2. Inventive step

2.1 It is undisputed that computer systems have been used for processing and displaying information in the form of diagrams before the priority date of 9 September 1999. The description indicates that the functions specified in claim 1 may be realised by suitable programming (see eg p.4 of the application as published, l.30,31). For the assessment of inventive step such a conventional computer system is a suitable starting point.

2.2 The method of claim 1 comprises the steps of receiving identification of attention items, prompting the user with questions and collecting the response data (see features (a) to (d)). This is a straight-forward use of a computer for data collection by displaying questions and recording answers, the data specifically relating to the non-technical field of human behaviour research.

Steps (e) and (f) relate to the manipulation and calculation of data. These are also a well-known uses of a computer.

2.3 Step (g) concerns the mapping of the data onto a diagram. It was held in decision T 125/04 (supra) that the task of designing diagrams is in general non-technical and that this is so even if there is some
data manipulation involved and the diagrams arguably convey information in a way which a viewer may intuitively regard as particularly appealing, lucid or logical (point 4.5 of the reasons). The appellant, while accepting that data representations in the form of diagrams are normally non-technical, has argued that the particular mapping step of claim 1 is an exception to the rule. The reasons offered for this view will be considered in the following.

2.4 First, the appellant has stated that the invention provides a quantification of abstract data which is technically utilizable.

The Board notes that it is of course true that a computer can process a number but not a human attitude, such as "attention". In this sense the claimed method does render data technically utilizable. However, the attention values are based on numbers selected by the respondents (cf feature (c) of claim 1; fig.5), possibly followed by some further simple calculations not changing the nature of the data (cf p.12, l.7-21). The quantification and any associated advantages are thus entirely the result of a mental act. It can therefore not contribute to the technical character of the invention.

2.5 A further technical effect is in the appellant's view that information about the attention can be made visible.

The Board agrees that if information is made visible this may sometimes be due to technical means, such as a pen. Here, however, the appellant seems to employ the
expression "make visible" more in the sense of "depicting". According to claim 1 this is achieved by the use of a particular diagram design. One of the outstanding features of this diagram is said to reside in its representation of four dimensions of information in two (spatial) dimensions (i.e. on a surface). It is however clear from the application in its entirety that this particular representation has been chosen taking a human being's capabilities of perception into account. Since the diagram has no effect besides the intellectual impact on the person interpreting it, its features - such as the number of data dimensions relative to the number of (spatial) diagram dimensions - are from a technical point of view irrelevant.

2.6 Similarly, the appellant argues that the conversion of values into different colours or icon sizes has a technical character, and that in particular the representation of time as the icon size (rather than as an axis) is a new idea.

However, the Board cannot accept this reasoning either. Colouring an image may as such be technical if only because paint is a patentable substance, but its use for conveying numbers is nothing but a (non-technical) presentation of information. The mere choice of symbol is from a technical point of view irrelevant. Thus, whether or not the idea to represent time (in fact percentage values - cf p.11, l.12-15) by the icon size is original, it contributes nothing to the technical character of the invention.
2.7 The Board is therefore of the opinion that the diagram defined in feature (g) of claim 1 has no technical significance. Hence the technical problem underlying the invention was merely to automate a method for representing attention allocation in the form of diagrams according to an abstract diagram model, using conventional computer hardware. The solution to this problem is the computer implementation according to claim 1. This implementation is regarded as obvious, a finding supported by the application itself ("...the invention is easily and economically implemented, being well within the capabilities of skilled professionals in the relevant fields and using well understood techniques and widely available components", p.4, l.27-30).

2.8 Thus, the subject-matter of claim 1 lacks an inventive step (Article 56 EPC).
Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:    The Chairman:

T. Buschek     S. Steinbrener