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**Datasheet for the decision  
of 19 July 2012**

**Case Number:** T 0313/10 - 3.5.01

**Application Number:** 04702199.3

**Publication Number:** 1588305

**IPC:** G06F17/30

**Language of the proceedings:** EN

**Title of invention:**

METHOD AND SYSTEM FOR MAINTAINING ITEM AUTHORITY

**Applicant:**

Amazon.Com, Inc.

**Headword:**

Item matching/AMAZON

**Relevant legal provisions:**

EPC 1973 Art. 52(2), 56

**Keyword:**

Additional search - computer system/index (no - notorious)  
Inventive step - using indexes (no - notorious) - identifying  
candidate matches (no - algorithm)  
Procedural violation - not following Guidelines and  
jurisprudence (yes)

**Decisions cited:**

G 0003/08, T 0258/03, T 0424/03, T 1242/04, T 1411/08,  
T 1194/97, T 1351/04, T 0052/85, T 1173/97

**Catchword:**

See points 1 and 2 of the Reasons.



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Case Number: T0313/10 - 3.5.01

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.01**  
**of 19 July 2012**

**Appellant:** Amazon.Com, Inc.  
(Applicant) 1200 12th Avenue South  
Seattle, WA 98144-2734 (US)

**Representative:** Grünecker, Kinkeldey,  
Stockmair & Schwanhäusser  
Leopoldstrasse 4  
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**Decision under appeal:** **Decision of the Examining Division of the  
European Patent Office posted 30 September 2009  
refusing European patent application No.  
04702199.3 pursuant to Article 97(2) EPC.**

**Composition of the Board:**

**Chairman:** S. Wibergh  
**Members:** W. Chandler  
P. Schmitz

## **Summary of Facts and Submissions**

- I. The appeal is against the refusal of European patent application No. 04702199.3, derived from international application WO 2004/068470. The application relates to matching a given item description (e.g. of a book) with stored item definitions (e.g. in a website's product catalog).
- II. The USPTO acting as International Searching Authority found two X documents. For the supplementary search in the European phase, the search division issued a declaration of no search. The reason was that the subject-matter was a "mental act - selecting intangible items of abstract information on the basis of fuzzy but technically unspecified criteria - which is implemented by a program for computers", both excluded under Article 52(2) EPC. The overall method was seen as a method of doing business, also excluded.
- III. In the first examination communication, the examining division referred to the declaration of no search and made some other minor objections. In the reply, the applicant amended claim 1 to include the aspect of identifying candidate item definitions, supported by [30]-[32] of the published application. It was argued, citing T 258/03 - Auction method/HITACHI (OJ EPO 2004, 575), that the claims had technical character by virtue of mentioning a computer and because the identification of candidate item definitions was a technical solution to the problem of automating the matching of a large number of items.
- IV. The division issued a summons arguing in the communication that the identification of candidate item definitions was limited to the field of computer

programs without a tangible technical effect going beyond the normal interaction between the computer and the program it was executing, without willfully and directly controlling the forces of nature, without transforming or transporting a physical object and without the processed data being defined in their technical significance. The subject matter was therefore excluded from patentability. The division further stated that they were not bound by the case law. They added that the then pending referral G 3/08 showed that there was no generally accepted jurisprudence on computer program exclusions. They stated that a decision could be reached on the basis of the Convention and the Guidelines alone.

- V. In the reply, the applicant pointed out that the Guidelines in force as of April 2009 did in fact state that any claimed subject-matter defining or using technical means was an invention within the meaning of Article 52(1) EPC and cited HITACHI again. It gave arguments about which features it considered as technical and what technical problem was solved.
- VI. The applicant did not attend the oral proceedings. The application was refused on the ground of lack of patentable subject-matter (Article 52(2) and (3) EPC). The decision stated that "no further comments in the merit having arrived from the applicant..." the application had to be refused for the defects and reasons noted in the summons. The decision does not mention the Guidelines.
- VII. The applicant filed an appeal and requested that the decision under appeal be set aside and that the case be remitted to the department of first instance for performing a search or, auxiliary, that a patent be

granted on the basis of the documents underlying the impugned decision.

VIII. At the oral proceedings before the Board, the appellant confirmed these requests. At the end of the oral proceedings, the chairman announced that the decision would be issued in writing.

IX. Claim 1 reads as follows:

"A method performed by a computer system (100; 110) for identifying an item definition that matches an item description, the item definition and item description having attributes with values, the item definitions being stored in an item definition table (101), the method comprising:

providing one or more rules (211) that specify how to generate a similarity score based on similarity between the values of the attributes of an item definition and an item description, wherein at least one rule specifies a criterion for identifying candidate item definitions;

identifying one or more candidate item definitions in accordance with the rules using indexes (212) of attributes into the item definitions in the item definition table, each index for an attribute mapping values of that attribute to the item definitions;

for each of the one or more candidate item definitions, generating a similarity score for the candidate item definition and the item description in accordance with the rules (403, 902), wherein said generating comprises assigning a score to the attributes of the candidate item definition and the item description, and aggregating scores of the attributes to derive the similarity score (909); and

selecting the candidate item definition whose generated similarity score indicates it is most similar to the item description as the matching item description."

### **Reasons for the Decision**

1. The first issue in this case is whether the claimed method, performed by a computer, of matching items in a table is excluded from patentability (Article 52(2) and 52(3) EPC). It is the established case law of the Boards of Appeal (see G 3/08 - published OJ 2011, 10, T 258/03, Hitachi (*supra*) and T 424/03, Clipboard formats I/Microsoft) that claimed subject-matter specifying at least one feature not falling within the ambit of Article 52(2) EPC is not excluded from patentability by the provisions of Article 52(2) and (3) EPC. In this case, claims 1 to 16 are all method claims which specify that the method is "performed by a computer system". Claims 17 to 24 are claims to a computer system and claims 25 to 41 are claims to a "computer-readable medium". None of these features fall under the exclusions of Article 52(2) EPC and hence the claimed subject-matter of the present request is not excluded from patentability by the provisions of Article 52(2) and (3) EPC.
  
2. The examining division argued, using their own criteria, that a method performed by a computer was excluded. This was contrary to the established jurisprudence as set out in the Guidelines for Examination at the time. After stating that they were only bound by the EPC and the Guidelines, the division ignored the applicant's observations that their approach was in fact in breach of the Guidelines. Both of these acts were procedural violations.

3. The next issue that arises is whether therefore the matter should be remitted to the examining division for an additional search as per the appellant's main request.
4. It is established jurisprudence that an additional search can be dispensed with if the only technical features of the claims are considered to be "notorious", i.e. generic and so well known that they cannot reasonably be refuted (see T 1242/04 - Provision of product-specific data/MAN, OJ EPO 2007, 421, point 9.2 and T 1411/08 - Pairing providers with consumers/IN-DEVELOPMENT, not published in OJ EPO, point 4). If this is the case, then there is no need to remit the case for an additional search. Thus the Board must examine whether there are any technical features that are not notorious.
5. The invention is essentially to match an item description (e.g. of a book) with one in an "item definition table" (e.g. a web site's database) using rules that define the required similarity of different attributes of the item (for a book, the attributes may be ISBN number, author, title, product type, etc.) The main aspect of the invention and the one that the appellant alleges to be technical is that, before applying the full set of matching rules, a number of "candidates" are identified (analogous to a pre-selection of candidates before a job interview). Although not claimed, this is based on a subset of the rules used in the full matching procedure. This avoids having to perform a time-consuming detailed match against all the items in the table (analogous to avoiding interviewing all applicants) [32]. The candidates are identified using indexes of the attributes.



6. At the oral proceedings, there was some debate about the nature of the indexes. The Board asked the representative whether they were not the same as indexes conventionally used by databases. Such an index may be a sub-table of the main table ordered by the attribute in question. Instead of searching the whole database for records with a particular value of the attribute, it is looked up in the index, which is quicker because the attributes are ordered. However, the representative explained that the index in the invention was different, being "an index into the attributes", which was somehow different from an index into the table. Nevertheless, neither the claim, nor the description appear to provide any support for this interpretation, the claim defining the indexes as "indexes of attributes into the item definitions in the item definition table, each index for an attribute mapping values of that attribute to the item definitions". In the Board's view, this defines the indexes in the sense understood by the Board, namely as a mapping from attribute values to definitions in the table.
  
7. According to the jurisprudence going back to T 208/84 Computer-related invention/VICOM (OJ EPO 1987, 14), one indication of technical character is that the method has an overall technical effect, such as controlling some physical process. This is not the case in the present invention since the effect of matching items with items in a table is either an abstract data processing one, or taking the embodiment into account (matching e.g. books and CDs), a business one.
  
8. The technical character may also come from within, namely from the effect on the computer. This was the

case, for example in T 424/03 (*supra*) where the technical effect came from "functional data structures (clipboard formats) used independently of any cognitive content...in order to enhance the internal operation of a computer system" (see point 5.2). Such "functional data structures" were also considered to be present in the file search method that was the subject of T 1351/04 - File search method/FUJITSU (not published in OJ EPO). Here, the functional data was also in the form of an index containing "management information" that indicated the "start positions", i.e. memory addresses, that pointed to the data to be searched for. This was said to control the computer by directing it to a certain memory location (see point 7.2). This was contrasted with the looking up of addresses in T 52/85 - Listing of semantically related linguistic expressions/IBM (not published in OJ EPO). In that case the addresses stored linguistic expressions that were equivalent to possible input expressions. The contribution there was seen to relate only to the kind of data represented, i.e. linguistic expressions. In T 1351/04, it was conjectured that the line to be drawn between the use of addresses in these two decisions is that if the method is concerned with the way that a computer performs the search, it may be technical. If, however, the kind of data is decisive it is not.

9. It thus follows that the index may well have technical character since, using the terms of T 1351/04 (*supra*), it controls the computer by directing it to a certain memory location. On the other hand, the Board cannot see any technical effect in the identification of the items or candidate items in accordance with rules. This is a purely abstract process part of an algorithm to provide matching and not part of any technical process or interacting with the computer in any way.

10. The representative essentially argued that the technical character came from being part of the technical process going on in the computer and that the identification of candidate item definitions was a technical solution to the problem of automating the matching of a large number of items using a computer. However, in the Board's view, these are merely manifestations of the intrinsic effect of implementing an algorithm on the computer. They are analogous to "normal" physical interactions between program (software) and computer (hardware) that does not contribute in the case of a computer program (see T 1173/97 - Computer program product/IBM, OJ EPO 1999, 609, headnote).
11. The representative argued that implementing the matching operation was the task of the engineer and therefore technical. The Board agrees that the implementation is indeed technical by virtue of the computer system. However, the point is that the contribution of the matching algorithm is not technical.
12. In conclusion, the Board judges that the only features having technical character are the computer system and potentially the use of indexes. However, a computer system in general is clearly notorious. As stated above, the Board is of the view that indexes are certainly well known in the field of databases. The question is then whether they are so well known as to qualify as "notorious". The Board judges that they are and were at the priority date of 2003. The problem of searching databases has been known for a very long time and methods of speeding this up using some kind of "index" have been implemented in virtually all

commercial database products. Decision T 1411/08 (*supra*) requires not only that the features be notorious, but also generic, that is, features which are defined in such a way that technical details are not significant (see headnote). In the Board's view, the present description of the use of the index does not specify any technical features and so is "generic" by that standard. In conclusion, the Board judges that claim 1 contains only technical features that are notorious so that no additional search is required.

13. Accordingly, the Board cannot allow the appellant's main request.
  
14. Moreover, under these circumstances, the Board considers that there can be no inventive step since the only features that could contribute are notorious. Thus the problem to be solved would be along the lines of how to implement the matching scheme. Clearly, it would be obvious to use a computer system and to consider the use of indexes to speed up the access to the data. Claim 1 accordingly does not involve an inventive step (Article 56 EPC 1973), so that the Board cannot allow the appellant's auxiliary request either.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:



T. Buschek

S. Wibergh

Decision electronically authenticated