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**Datasheet for the decision
of 21 October 2024**

Case Number: T 0132/22 - 3.5.07

Application Number: 15165653.5

Publication Number: 2940604

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Language of the proceedings: EN

Title of invention:

Apparatus and method for web page access

Applicant:

Samsung Electronics Co., Ltd.

Headword:

Web page access/SAMSUNG

Relevant legal provisions:

EPC 1973 Art. 56

Keyword:

Inventive step - (no)



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Case Number: T 0132/22 - 3.5.07

D E C I S I O N
of Technical Board of Appeal 3.5.07
of 21 October 2024

Appellant: Samsung Electronics Co., Ltd.
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 3 November 2021
refusing European patent application
No. 15165653.5 pursuant to Article 97(2) EPC**

Composition of the Board:

Chair J. Geschwind
Members: P. San-Bento Furtado
M. Jaedicke

Summary of Facts and Submissions

- I. The appeal lies from the decision of the examining division to refuse European patent application No. 15165653.5 for lack of inventive step in the subject-matter of the claims of a main request and the independent claims of first to third auxiliary requests over the following prior-art document:
- D1: S. Chakrabarti et al.: "Using Memex to archive and mine community Web browsing experience", Computer Networks vol. 33, no. 1-6, June 2000, Amsterdam, pages 669 to 684.
- II. With its statement of grounds of appeal, the appellant amended the claims of the requests considered in the appealed decision essentially by adapting the two-part form. The appellant requested that the decision under appeal be set aside and that a patent be granted on the basis of the main request or of one of the three auxiliary requests.
- III. In a communication accompanying a summons to oral proceedings, the board expressed its preliminary opinion that the four claim requests filed with the grounds of appeal were admissible. The subject-matter of claim 1 of each of the requests seemed to lack inventive step over the disclosure of document D1.
- IV. In reply to the summons and preliminary opinion, the appellant did not submit any further arguments or claim requests. The representative informed the board that he had received instructions not to attend the oral proceedings. The board then cancelled the oral proceedings.

V. The appellant's final request was that the contested decision be set aside and that a patent be granted on the basis of the main request or one of the first to third auxiliary requests filed with the statement of grounds of appeal.

VI. Claim 1 of the main request reads as follows (itemisation added by the board):

- (a) "An apparatus (100, 400, 500, 600, 900) for structuring a web page access history, the apparatus comprising:
- (b) a topic extractor (110, 510, 910) configured to analyze a web page (211, 212, 213, 214, 215, 216) accessed by a user to extract at least one topic (220) related to the page;
- (c) a mapper (120, 920) configured to map the at least one extracted topic onto a node (241, 242, 243, 244, 245, 246, 247, 248) of an ontology-based data structure (230);
characterized by
- (d) a summary graph generator (130, 530) configured to extract a sub graph (240) including the mapped node from the data structure, and
 - (d1) to generate a summary graph (250) in real time based on the extracted sub graph, wherein
 - (d2) the summary graph generator is configured to generate the summary graph by storing information for accessing web pages, from which each topic is extracted, in each node of the sub graph onto which each topic is mapped."

- VII. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the text "in real time" has been deleted and in that the following text has been added at the end:
"; and
a session manager (410, 610) configured to manage the at least one web page (211, 212, 213, 214, 215, 216) in a session to enable the summary graph to be generated in the session".
- VIII. Claim 1 of the second auxiliary request adds the following text at the end of claim 1 of the first auxiliary request:
", wherein the session refers to a series of tasks of retrieving that the user performs through a web browser".
- IX. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the text "a summary graph generator (130, 530) configured to extract a sub graph (240) ... in each node of the sub graph onto which each topic is mapped;" has been replaced with the following text:
"a semantic relations analyzer (520) configured to analyze semantic relations between the at least one extracted topic and other extracted topic;
a summary graph generator (130, 530) configured to extract a sub graph (240) including the mapped node from the data structure by matching each of the topics to nodes based on the analyzed semantic relations between topics, and by matching the semantic relations between the topics to edges that connect the nodes corresponding to each of the topics, and to generate a summary graph (250) based on the extracted sub graph by storing information for accessing web pages, from which

each of the topics is extracted, in each node of the sub graph onto which each of the topics is mapped".

Reasons for the Decision

1. According to Rule 115(2) EPC, if a party duly summoned to oral proceedings before the European Patent Office does not appear as summoned, the proceedings may continue without that party. Article 15(3) RPBA stipulates that a board is not obliged to delay any step in the proceedings, including its decision, by reason only of the absence at the oral proceedings of a party duly summoned who may then be treated as relying only on its written case. According to the case law of the Boards of Appeal, where oral proceedings are scheduled upon a party's request and that party subsequently expresses its intention not to attend, such statement is generally interpreted as a withdrawal of the request for oral proceedings (Case Law of the Boards of Appeal, 10th edition, 2022, III.C.4.3.2). As a consequence, the decision can be handed down in writing without holding oral proceedings (Article 12(8) RPBA).
- 1.1 In the present case, the appellant announced that it intended not to attend the oral proceedings. The appellant thus chose not to make use of the opportunity to comment at oral proceedings on any of the objections, but to rely on the arguments as set out in the written submissions. In view of this, and in accordance with Rule 115(2) EPC and Articles 12(8) and 15(3) RPBA, the board cancelled the oral proceedings and the decision is given in writing.

Invention

2. The invention concerns structuring web page access history in order to facilitate the user's access to a web page based on the access history (see original description, page 1, lines 4 to 6).

Admissibility of the requests

3. The main request and first to third auxiliary requests filed with the grounds of appeal merely introduce the two-part form. Since the introduced amendments are minor, do not change the claimed subject-matter and do not affect the procedural efficiency, the board, exercising its discretion under Article 12(4) RPBA, admits the four requests into the proceedings.

Main request

4. *Inventive step - claim 1*
 - 4.1 Document D1 discloses a browser assistant for organising the browsing history. The browser assistant, which is called Memex, analyses the browsing history and bookmarks and indexes the data by topics of interest for the user (abstract; page 675, section 2.1.3; Figures 4 and 5). In "unsupervised topic discovery", Memex receives a set of documents from the user's browsing history and proposes a tree-structured topic hierarchy that clusters the documents based on their contents (page 678, section 3.2, first paragraph and section 3.3). Therefore, document D1 discloses an apparatus for structuring a web-page access history comprising a topic extractor as specified in features (a) and (b).

- 4.2 The browser assistant of D1 uses a community or reference taxonomy to classify web documents into topics (abstract; page 679, section 3.3.3; page 680, left-hand column). Therefore, the browser assistant Memex of D1 also includes a mapper configured to map the extracted topic(s) onto a node of an ontology-based data structure as specified in feature (c).
- 4.3 The appellant did not contest that document D1 discloses features (a) to (c) but contested the mapping of features of the decision under appeal. The appellant argued that the examining division had identified the "tree-structured topic hierarchy" of D1 with the ontology-based data structure of claim 1 and the "folder structure" with the claimed summary graph. However, the "tree-structured topic hierarchy" proposed by Memex was the "folder structure" accepted or corrected by the user in document D1. According to the appellant, document D1 did not disclose features (d), (d1) and (d2).

In the board's opinion, the summary graph of claim 1 corresponds to the folder structure of Memex, which is a "tree-structured topic hierarchy". The "ontology-based data structure" of feature (c) corresponds to a taxonomy in Memex. Document D1 discloses that a community taxonomy or a reference taxonomy may be used (abstract; page 672, left-hand column; page 673, left-hand column; page 679, section 3.3.3; page 680). For example, the folders of a second user, e.g. based on the Yahoo! taxonomy, may be used as a reference taxonomy (page 679, section 3.3.3) and Memex has the ability to synthesize a topic taxonomy from the browsing and bookmark habits of a user community (page 672, first paragraph).

A "tree-structured topic hierarchy that clusters the documents based on their contents" may be used as a taxonomy in Memex, but it does not have to be the user's tree-structured topic hierarchy. In Memex, a taxonomy from a different user or users, e.g. a community taxonomy, may be used to automatically create the user's "tree-structured topic hierarchy" from the user's browsing history (abstract; page 672, left-hand column; page 673, left-hand column; page 679, section 3.3.3; page 680). Document D1 thus discloses the functionality described in features (d) and (d2).

- 4.4 With regard to feature (d1), the examining division was of the opinion that "in real time" should be interpreted in light of the only passage of the description that disclosed this feature, page 13, lines 17 to 22 (paragraph [0069] of the A1 publication), which disclosed the summary graph being generated when indicated by the user.

The appellant argued that the skilled person being unaware of the claimed invention would not have understood the classification of URLs as described in D1 as the generation of a summary graph in real time (in response to a user's request for searching particular web documents) by extracting a sub-graph from a data structure and storing information for accessing the respective web pages in each node of the sub-graph, as defined in claim 1. The examining division's interpretation could be seen as an attempt, based on hindsight, to distort or misrepresent the proper technical teaching of the disclosure in such a way that it artificially met the claimed features.

- 4.4.1 The board does not find the appellant's arguments decisive for the outcome of the inventive-step

assessment since changing a functionality to be performed in real time is an obvious design option.

4.4.2 The board does not find the appellant's arguments convincing either. The appellant suggests that the summary graph generation of feature (d1) should be interpreted as occurring in real time "in response to a user's request for searching particular web documents". However, the generation of the summary graph described in the relevant passage of the description is based on a stored browsing history, not on web pages visited as the user is browsing. The description discloses on page 13, lines 11 to 22, with reference to Figure 3, the following (underlining added by the board):

"in the region 310, a user interface 311 for setting a period of a web page access history to be retrieved is displayed.

... if a retrieval period is set to be from April 18, 2014 to April 24, 2014, the apparatus 100 for structuring a web page access history generates a summary graph in real time using a web site access history during the period set by a user, and displays the generated summary graph in the region 310, or displays a summary graph, which has been stored after being generated based on a web site access history during a retrieval period set by a user, in the region 310."

In the board's opinion, this passage discloses that after the user sets a period, the browsing history from that period is retrieved and used to generate a summary graph in "real time". The "real time" generation is an immediate generation upon request by the user based on the stored browsing history of a period set by the user.

In sections 2.1.2 and 2.1.3 and Figure 3 (pages 674 and 675), document D1 discloses importing collections of links to the user's folder structure with the "Import" function, reorganising a set of URLs using the "Cluster" function, which is further explained in section 3.3.2, and "guess[ing] the folders for unclassified history pages". This particular function of Memex corresponds to a "real time" creation of the summary graph within the meaning of claim 1, except that Memex does not disclose, in the context of this function, automatically merging the generated tree hierarchy with the user's folder structure.

- 4.5 Therefore, the board agrees with the decision under appeal that the subject-matter of claim 1 differs from the apparatus of document D1 in that at least part of the functionality of features (d) to (d2) is performed automatically (by a "summary graph generator").
- 4.6 The mere automation of a known manual process by means of a computer program is notoriously known and thus obvious. Therefore, the distinguishing feature is not inventive in view of document D1.
- 4.7 The appellant's argument that the claimed apparatus overcomes the disadvantage of Memex that each web page can only be assigned to a single folder is not convincing, since the claim wording does not exclude an embodiment having this disadvantage. Furthermore, such a distinction would merely reflect a non-technical change of the conceptual model which cannot contribute to an inventive step.
- 4.8 Therefore, the subject-matter of claim 1 is not inventive (Article 56 EPC).

First and second auxiliary requests

5. Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the text "in real time" has been deleted in feature (d1) and in that the following feature has been added to the claim:
 - (e) a session manager configured to manage the at least one web page in a session to enable the summary graph to be generated in the session.

6. Claim 1 of the second auxiliary request adds the following features to claim 1 of the first auxiliary request:
 - (e1) wherein the session refers to a series of tasks of retrieving that the user performs through a web browser.

7. *Inventive step - claim 1*

- 7.1 Claims 1 of the auxiliary requests are no longer limited to the embodiment described on page 13, lines 11 to 22, of the application describing the real time generation of the summary graph, but rather to an embodiment in which the summary graph is "generated in the session". Document D1 discloses the automatic classification of the user's history "lazily in the background" (page 675, left-hand column, second paragraph). The examining division argued that it was implicit from this passage of D1 that "the pages of the session can be copied into the special folder marked 'Cluster' for generating the folder structure for the specific session".

The appellant contested this view, arguing that the text passages cited in the decision under appeal describe activities of a user in Memex, which do not

relate to a session in the sense of claim 1, let alone to the generation of a summary graph in a session.

In the board's opinion, sessions are intrinsic to standard web surfing and browser functionality. Since the users' visits to web pages take place within a session, the collection of browsing history also typically (if not obligatorily due to technical constraints once the session is closed) occurs within a session. The board further notes that document D1 explicitly discloses that Memex is aware of browsing sessions and collects session data (see page 671, right-hand column, last full paragraph and the USER table in Figure 6). The board is therefore of the opinion that feature (e1) is known from document D1.

However, document D1 does not clearly disclose that the summary graph is "generated in the session". The generation of the summary graph may be done once the session ends with the browsing history collected during the session.

- 7.2 The subject-matter of claim 1 of the first or second auxiliary request therefore differs from the apparatus of document D1 in that the functionality of features (d) and (d2) is performed automatically (by a "summary graph generator") and in that it includes feature (e).
- 7.3 Automating manual processes using computers is notoriously known and the claim does not provide any implementation details of the generation of the graph in a session.
- 7.4 The distinguishing features are thus minor obvious modifications of the system of D1 in order to generate the summary graph without user intervention (automatically) during the time the user is performing

a series of tasks in the web browser ("in the session").

- 7.5 Therefore, the subject-matter of claim 1 of the first and second auxiliary requests does not involve an inventive step (Article 56 EPC).

Third auxiliary request

8. Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the text "each topic" in feature (d2) has been replaced with "each of the topics" and in that the following features have been added to the claim:
- (f) a semantic relations analyser configured to analyse semantic relations between the at least one extracted topic and other extracted topic;
 - (g) (extracting a sub graph by the summary graph generator is performed) by matching each of the topics to nodes based on the analysed semantic relations between topics, and by matching the semantic relations between the topics to edges that connect the nodes corresponding to each of the topics.
9. *Inventive step - claim 1*
- 9.1 The appellant contested the examining division's argument that features (f) and (g) were implicitly disclosed in section 3.3 of document D1, according to which "In unsupervised topic discovery, Memex inputs a set of documents from H(p) (browser history) and proposes a tree-structured topic hierarchy that clusters the documents based on their contents". The appellant argued that this passage of document D1 merely referred to classifying URLs of a browser.

9.2 In the board's opinion, the relationships between topics and sub-topics in the taxonomies and tree-structured topic hierarchies of D1 are "semantic relationships" within the meaning of features (f) and (g). An edge from a topic to a sub-topic represents the relationship between the topic and the sub-topic (see also document D1, page 679, left-hand side, first full paragraph). When updating and/or generating a tree-structured topic hierarchy for newly visited web documents, the system of D1 extracts the topic related to each web document and determines how it relates to the topics of the taxonomy and of the hierarchical folder structure, and, thus how it relates to other extracted topics.

9.3 The board is thus of the opinion that document D1 discloses features (f) and (g) and that the subject-matter of claim 1 is not inventive for the same reasons as given for the first and second auxiliary requests.

9.4 Therefore, claim 1 of the third auxiliary request does not meet the requirements of Article 56 EPC either.

Conclusion

10. Since none of the requests on file is allowable, the appeal is to be dismissed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chair:



S. Lichtenvort

J. Geschwind

Decision electronically authenticated