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(54) Title: RELATIONSHIP ANALYSIS SYSTEM AND METHOD FOR SEMANTIC DISAMBIGUATION OF NATURAL LANGUAGE

(57) Abstract: A system, method, and computer program product for natural language understanding, including forming pairs of words and/or phrases in independent phrases in a sentence, wherein each word and/or phrase is paired with every other word and/or phrase; determining meanings for the words and/or phrases; comparing the meanings of each word and/or phrase with each meaning of the other word and/or phrase in the pair; selecting the pairs with the best relationships; combining highly-related pairs with other highly-related pairs to form longer groups of words; exchanging word meanings for the longer groups with word meanings having a weaker relationship to determine if the exchanged word meanings provide an overall stronger relationship; and forming longer and longer groups until the sentence is understood.

**INTERNATIONAL SEARCH REPORT**

International application No.

PCT/US04/33042

<p><b>A. CLASSIFICATION OF SUBJECT MATTER</b>                  IPC: <b>G06F 17/27</b></p> <p>USPC: 704/1,9                  According to International Patent Classification (IPC) or to both national classification and IPC</p>																					
<p><b>B. FIELDS SEARCHED</b></p> <p>Minimum documentation searched (classification system followed by classification symbols)                  U.S. : 704/1,9</p> <p>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched</p> <p>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)                  East</p>																					
<p><b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b></p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X --- Y</td> <td>US 6,556,964 B2 (HAUG et al) 29 April 2003 (29.04.2004), Fig. 6, column 8, lines 26-59, column 2 lines 24, 24, 46-51, column 3 line-55-column 4, line 14, column 3 lines 42-44</td> <td>1- 4, 6, 8, 9, 13-18, 20, 22, 23, 27, 28 ----- 5, 7, 10-12, 19, 21, 24-26</td> </tr> <tr> <td>Y</td> <td>US 5,960,384 (BRASH) 28 September 1999 (28.09.1999), column 2, lines 2-12, column 13, lines 9-19, column 27, lines 55-60</td> <td>5, 19</td> </tr> <tr> <td>Y</td> <td>US 6,356,864 (FOLTZ et al) 12 March 2002 (12.03.2002), column 2, lines 3, 4</td> <td>12, 26</td> </tr> </tbody> </table>		Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X --- Y	US 6,556,964 B2 (HAUG et al) 29 April 2003 (29.04.2004), Fig. 6, column 8, lines 26-59, column 2 lines 24, 24, 46-51, column 3 line-55-column 4, line 14, column 3 lines 42-44	1- 4, 6, 8, 9, 13-18, 20, 22, 23, 27, 28 ----- 5, 7, 10-12, 19, 21, 24-26	Y	US 5,960,384 (BRASH) 28 September 1999 (28.09.1999), column 2, lines 2-12, column 13, lines 9-19, column 27, lines 55-60	5, 19	Y	US 6,356,864 (FOLTZ et al) 12 March 2002 (12.03.2002), column 2, lines 3, 4	12, 26								
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