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### (54) Title: METHOD OF INDEXING GATEGORIES FOR EFFICIENT SEARCHING AND RANKING

(57) Abstract: A document management system indexes categories for efficient retrieval based on a category sequence. The category sequence is generated such that for any first, second and third categories appearing in the sequence in ascending order, a similarity distance between the first and second categories is less than or equal to a similarity distance between the first and third categories, and a similarity distance between the second and third categories is also less than or equal to the similarity distance between the first and third categories. A category index implemented in this manner significantly reduces the number of similarity distance computations that are performed when searching for categories and documents that are most relevant to content presented on a web page.

### INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/38167

A. CLA IPC:	SSIFICATION OF SUBJECT MATTER <b>G06F 7/00</b> ( 2006.01), <b>17/30</b> ( 2006.01), <b>17/00</b> ( 2006	.01); <b>G06Q</b>	<b>30/00</b> ( 2006.01); <b>G07G 1/14</b> ( 2	006.01)	
USPC: According to	707/3,102;705/14 • International Patent Classification (IPC) or to both na	tional class	ification and IPC		
B. FIELDS SEARCHED					
	ocumentation searched (classification system followed l 07/3,102;705/14	y classifica	ation symbols)		
Documentati	on searched other than minimum documentation to the	extent that	such documents are included in	the fields searched	
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Google					
C. DOC	UMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where a	ppropriate,	of the relevant passages	Relevant to claim No.	
Х	US 6,185,550 B1 (SNOW et al) 06 February 2001 (0	06.02.2001)	whole document	11, 16-18, 23, and 24	
Y				1-10, 12-15, 19-22, and 25-27	
Y	US 2003/0233350 A1 (DEDHIA et al) 18 December and [0033]	2003 (18.1	2.2003), paragraphs [0017]	1-10	
Y	"US 5,819,258 A (VAITHYANATHAN et al) 06 Oct	ober 1998 (	06.10.1998) col. 11, lines 35-	1-10 and 25-27	
Y	US 7,028,024 B1 (KOMMERS et al) 11 April 2006 (11.04.2006) whole document 4-7, 12-15, 19-22, and		4-7, 12-15, 19-22, and 25-27		
Y	US 7,124,093 B1 (GRAHAM et al) 17 October 2006	(17.10.200	06) whole document	10	
Α	US 2004/0267725 A1 (HARIK) 30 December 2004 (	(30.12.2004	) whole docuement	1-27	
Further	documents are listed in the continuation of Box C.		See patent family annex.		
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"A" document defining the general state of the art which is not considered to be of particular relevance  "A" document defining the general state of the art which is not considered to be of particular relevance			tion but cited to understand the		
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"P" document published prior to the international filing date but later than the priority date claimed document met		document member of the same patent fa	mily		
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# INTERNATIONAL SEARCH REPORT

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	US 6,167,397 A (JACOBSON et al) 26 December 2000 (26.12.2000) whole document	1-27
A	US 6122628 A (CASTELLI et al) 19 September 2000 (19.09.2000) Whole document	1-27
A	US 2002/0078044 A1 (SONG et al) 20 June 2002 (20.06.2002) Whole document	1-27
L	US 2005/0267872 (GALAI et al) 01 December 2005 (01.12.2005) Whole document	1-27