

(12) United States Patent Law et al.

(10) Patent No.:

US 6,754,873 B1

(45) Date of Patent:

Jun. 22, 2004

(54) TECHNIQUES FOR FINDING RELATED HYPERLINKED DOCUMENTS USING LINK-BASED ANALYSIS

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

(21) Appl. No.: 09/544,733

(22) Filed: Apr. 6, 2000

Related U.S. Application Data

(60) Provisional application No. 60/155,277, filed on Sep. 20, 1999.

(56) References Cited

U.S. PATENT DOCUMENTS

5,895,470 A	*	4/1999	Pirolli et al	707/102
6,285,999 B	! *	9/2001	Page	707/5
6,457,028 B	1 *	9/2002	Pitkow et al	715/513
6,591,261 B	l *	7/2003	Arthurs	707/2
6,665,837 B	Ĺ	12/2003	Dean et al 7	15/501.1

OTHER PUBLICATIONS

Bharat & Henzinger, "Improved Algorithms for Topic Distillation in a Hyperlinked Environment" 1998 http:// 216.239.37.104/search?q=

cache:PJIP0Z9wxQsJ:gatekeeper.dec.com/pub/DEC/SRC/publications/monika/sigir98/pdf+lmoved+Algorithms+fortopic&hl=en&ic=UTF-8.*

Dean & Henzinger, "Finding related pages in the World-Wide Web" Mar. 1, 1999, http://216.239.39.104/search?q=cache:tWTL2B22VcEJ:www.unizh.ch/home/mazzo/re-ports/www8conf/2148/pdf/pd1.pdf+Finding+Related+Pages+in+the+World+Wide+Web&hl=en&ie=UTF-8.*

Bharat & Henzinger, "Improved Algorithms for Topic Distillation in a Hyperlinked Environment" 1998 http:// 216.239.37.104/search?q= cache:PJIP0Z9wxQsJ:gatekeeper.dec.com/pub/DEC/SRC/publications/monika/sigir98/pdf+lmoved+Algorithms+for+topic&hl=en&ie=UTF-8.*

* cited by examiner

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(57) ABSTRACT

Techniques for finding related hyperlinked documents using link-based analysis are provided. Backlink and forwardlink sets can be utilized to find web pages that are related to a selected web page. The scores for links from web pages that are from the same host and links from web pages with numerous links can be reduced to achieve a better list of related web pages. The list of related web pages can be utilized as a feature to a word-based search engine or an addition to a web browser.

19 Claims, 14 Drawing Sheets

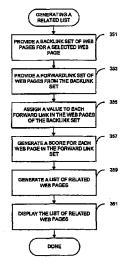


EXHIBIT 2107

Facebook, Inc. et al.

Software Rights Archive LLC



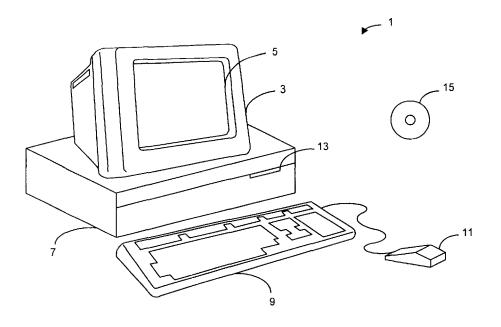


FIG. 1

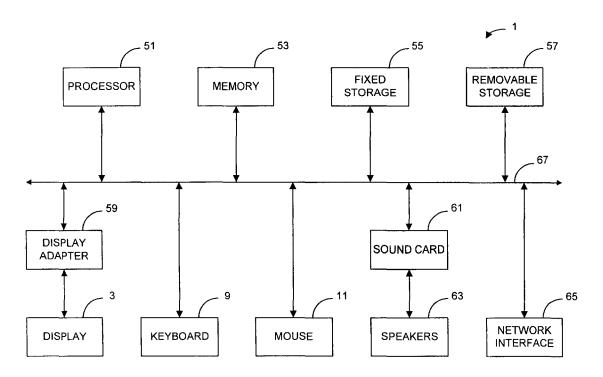


FIG. 2



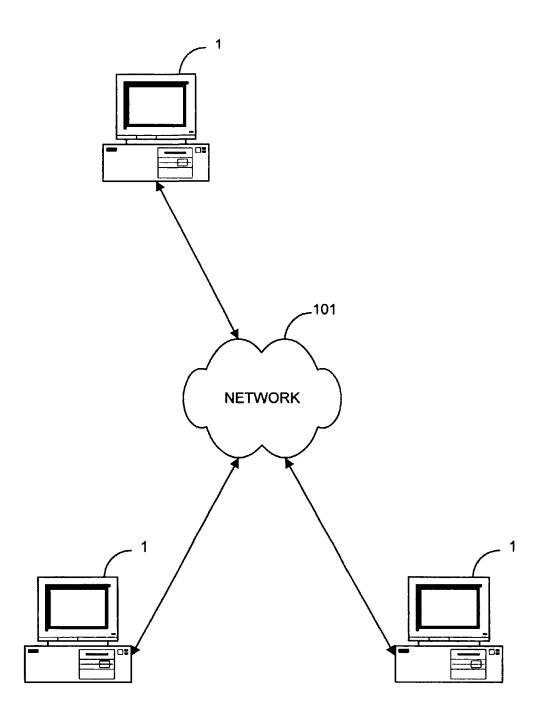
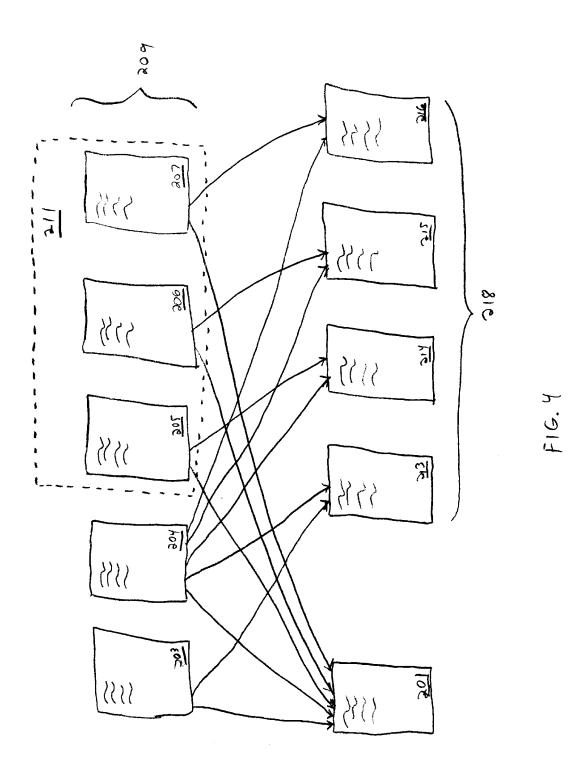
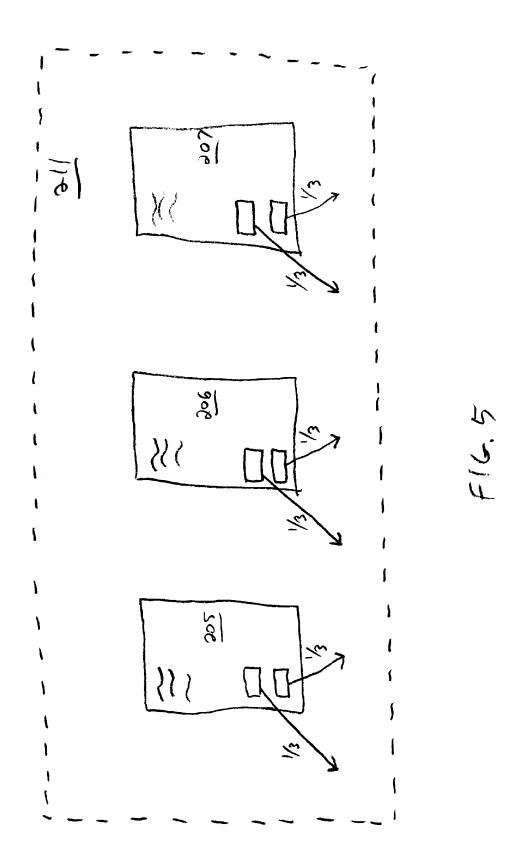


FIG. 3











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