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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 :
H04L 12/24, G06F 17/30, H04L 12/56

A3

(11) International Publication Number: **WO 99/63708**

(43) International Publication Date: 9 December 1999 (09.12.99)

(21) International Application Number: PCT/IL99/00291

(22) International Filing Date: 1 June 1999 (01.06.99)

(30) Priority Data:
124706 1 June 1998 (01.06.98) IL

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(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

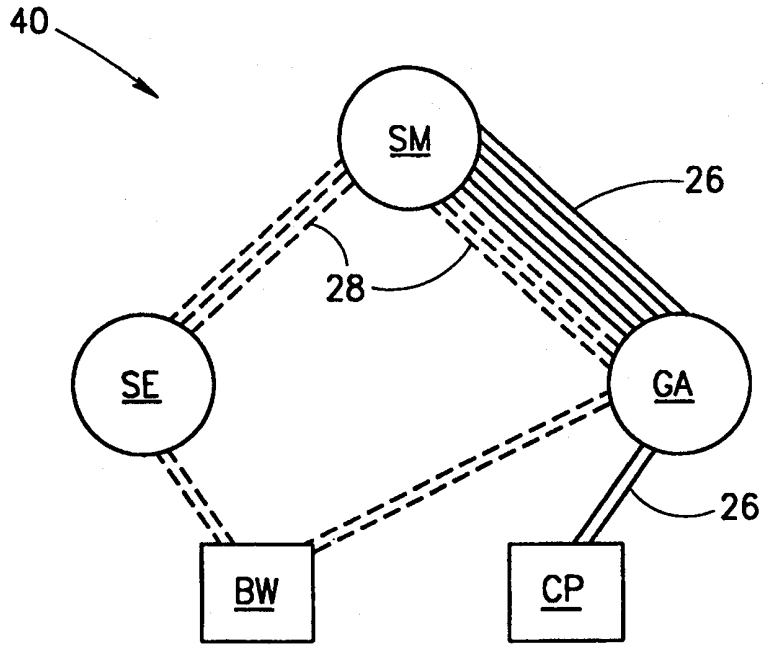
Published
With international search report.
Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report:
29 June 2000 (29.06.00)

(54) Title: MODELING DATA SETS AND NETWORKS

(57) Abstract

A method of modeling an information network, comprising detecting an activation at two nodes of a model of the network, correlating the detected activations and modifying at least one property of a functional relationship in the model of the network, responsive to the correlation. Preferably, the model comprises an activation network.



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INTERNATIONAL SEARCH REPORT

Int dional Application No
PCT/IL 99/00291

A. CLASSIFICATION OF SUBJECT MATTER
IPC 6 H04L12/24 G06F17/30 H04L12/56

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 6 H04L G06F

Documentation 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 practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 18659 A (DAWES NICHOLAS ;LORAN NETWORK SYSTEMS LLC (US)) 22 May 1997 (1997-05-22)	1-3,5-9, 17-19
Y	the whole document	11-16,20
A	page 1, line 9 -page 4, line 14 page 8, line 8 -page 10, last line page 31, line 18 -page 33, line 15 page 34, line 11 -page 36, line 3 page 37, line 10 -page 40, line 35 figure 3 page 51, line 1 -page 52, last line; claims 1-5	4,10, 21-23

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
19 April 2000	04. 05. 2000

Name and mailing address of the ISA	Authorized officer
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INTERNATIONAL SEARCH REPORT

Int tional Application No
PCT/IL 99/00291

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication,where appropriate, of the relevant passages	Relevant to claim No.
Y	FAHMY H I ET AL: "APPLICATION OF NEURAL NETWORKS AND MACHINE LEARNING IN NETWORK DESIGN" IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS,US,IEEE INC. NEW YORK, vol. 15, no. 2, page 226-237 XP000643001 ISSN: 0733-8716	11
A	the whole document	1-10, 17-23

Y	EP 0 773 649 A (SUN MICROSYSTEMS INC) 14 May 1997 (1997-05-14)	20
A	abstract page 3, line 39 -page 5, line 29 figures 3,5 claims 1,10	1-11, 21-23

A	WO 97 24838 A (MCI COMMUNICATIONS CORP) 10 July 1997 (1997-07-10) abstract figures 2,3 page 4, line 1 -page 5, line 14 claims 1,16	1-11, 17-23

A	ROUVELLOU I ET AL: "TOPOLOGY IDENTIFICATION FOR TRAFFIC AND CONFIGURATION MANAGEMENT IN DYNAMIC NETWORKS" PROCEEDINGS OF THE CONFERENCE ON COMPUTER COMMUNICATIONS (INFOCOM),US,NEW YORK, IEEE, vol. CONF. 11, page 2197-2204 XP000300346 ISBN: 0-7803-0602-3 the whole document	1-11, 17-23

X	US 5 598 532 A (LIRON MOSHE) 28 January 1997 (1997-01-28) abstract figures 1-3 column 1, line 55 -column 3, line 53 claims 1,29,10,11,15,16	1,12-16

Y	US 5 216 591 A (BALL MICHAEL ET AL) 1 June 1993 (1993-06-01) abstract figures 1,2 claims 1-6	12-16

A	WO 96 41451 A (GRC INT INC) 19 December 1996 (1996-12-19) abstract page 4, line 8 -page 6, line 11 figures 7-11 claims 1-3	12-16

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INTERNATIONAL SEARCH REPORT

Inte. ational application No.
PCT/IL 99/00291

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☒ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

1-23

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☒ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No. PCT/IL 99/00291

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-11,17-23

   Method of modeling an information system having a structure, detecting activations at two or more nodes, after correlating these activations modifying the properties of a functional relationship in a functional model of the system where said properties comprise a weight.

2. Claims: 12-16

   Method of modeling an information system having a structure, detecting activations at two or more nodes, after correlating these activations modifying the properties of a functional relationship in a functional model of the system and modifying the structure of the system according to the modifications of the model.

3. Claims: 24-33

   Method of optimizing a data cache.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int tional Application No
PCT/IL 99/00291

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