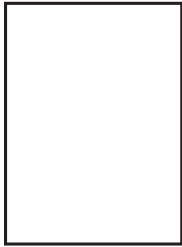


Editorial Pointers



THE WORLD WIDE WEB MAY BRING THE WORLD TO our fingertips, but for tens of millions, some of the greatest wonders of the Web still require proficiency in English—the dominant language for information seeking. Progress has been slow building search portals in other languages, but with online populations in some regions experiencing triple-digit growth, demand is pushing innovation in a big way.

Wingyan Chung reviews the latest advances in Web search engines in a multilingual world in this month's cover story. He examines three prototype Web search portals—in Chinese, Spanish, and Arabic—and reveals the strengths and weaknesses of each and their potential for opening up informational treasures like never before. He also offers valuable guidance on how systems developers and managers, as well as users, worldwide can best support non-English Web searching.

ALSO THIS MONTH, MANY GOVERNMENTS WORLDWIDE EMPLOY WIRELESS connectivity to extend their services among the citizenry. Silvana Trimi and Hong Sheng consider the advantages and implications of m-government, exploring notable projects, and nations, leading the charge.

Dov Dori details a conceptual modeling framework—Object-Process Methodology—that employs graphics and text to help alleviate cognitive loads. And Irit Hadar and Uri Leron question the intuitiveness of object-oriented design, citing research that traces the inevitable clash between intuitive and analytical modes of thinking.

Auction houses appear to be at a crossroads, with many buyers and sellers losing confidence in the system. Auction fraud is an escalating concern, not only to consumers but to the U.S. Federal Trade Commission where reports of fraudulent transactions grew from 106 in 1997 to more than 24,000 in 2007. Bezalel Gavish and Christopher Tucci examine this trend, focusing on how some buyers are being swindled.

While software configuration management (SCM) practices may not support change management, Mohan, Xu, and Ramesh report all is not lost. Their article indicates how to integrate traceability practice with SCM practice to improve change-management processes in software development.

In “Viewpoint,” former *Communications* editor-in-chief Jacques Cohen urges CS support for the emerging field of synthetic biology, emphasizing the idealistic goals of the field will not be feasible without the engaged contribution of computer scientists.

Finally, meet the candidates running for ACM's 2008 General Election, beginning on page 22.

Diane Crawford

EDITOR

COMMUNICATIONS

of the ACM

A monthly publication of
the ACM Publications Office

ACM

2 Penn Plaza, Suite 701
New York, NY 10121-0701 USA
(212) 869-7440 FAX: (212) 869-0481

Group Publisher: Scott Delman

Editor: Diane Crawford

Managing Editor: Thomas E. Lambert

Senior Editor: Andrew Rosenbloom

Editorial Assistant: Zarina Strakhan

Copyright: Deborah Cotton

Contributing Editors

Phillip G. Armour; Hal Berghel;
Michael A. Cusumano; Peter J. Denning;
Robert L. Glass; Seymour Goodman;
Rebecca Mercuri; Peter G. Neumann;
Pamela Samuelson; Meg McGinity Shannon

Art Director: Caren Rosenblatt

Production Manager: Lynn D'Addesio

Advertising

ACM Advertising Department
2 Penn Plaza, Suite 701, New York, NY 10121-0701
(212) 869-7440; Fax: (212) 869-0481

Director of Media Sales:

Jonathan M. Just: jonathan.just@acm.org

For the latest media kit—including rates—contact:
Graciela Jacome: jacome@acm.org

Contact Points

CACM editorial: crawford_d@acm.org

Copyright permission: permissions@acm.org

Calendar items: calendar@acm.org

Change of address: acmcoa@acm.org

Communications of the ACM

(ISSN 0001-0782) is published monthly by the ACM, 2 Penn Plaza, Suite 701, New York, NY 10121-0701. Periodicals postage paid at New York, NY 10001, and other mailing offices.

POSTMASTER: Please send address changes to Communications of the ACM, 2 Penn Plaza, Suite 701, New York, NY 10121-0701 USA

Printed in the U.S.A.



Association for
Computing Machinery

Advancing Computing as a Science & Profession

DOI: 10.1145/1342327.1342328

ACM *The Association for Computing Machinery*

ACM (founded 1947) is an international scientific and educational organization dedicated to advancing the art, science, engineering, and application of information technology, serving both professional and public interests by fostering the open interchange of information and by promoting the highest professional and ethical standards.

Executive Director and CEO: John White
Director, ACM U.S. Public Policy Office: Cameron Wilson

Deputy Executive Director and COO: Patricia Ryan
Director, Office of Information Systems: Wayne Graves
Director, Office of Financial Services: Russell Harris
Financial Operations Planning: Darren Ramdin

Director, Office of Membership: Lillian Israel

Director, Office of Publications: Mark Mandelbaum
Bernard Rous

Deputy Director: Diane Crawford
Deputy Director, Magazine Development: Jono Hardjowirogo
Publisher, ACM Books and Journals: Donna Cappo

Director, Office of SIG Services: Donna Cappo

ACM Council President: Stuart I. Feldman
Vice-President: Wendy Hall
Secretary/Treasurer: Alain Chesnais
Past President: David A. Patterson
Chair, SGB Board: Joseph A. Konstan
Co-Chairs, Publications Board: Ronald Boisvert, Holly Rushmeier

Members-at-Large: Michel Beaudouin-Lafon (2000–2008); Bruce Maggs (2006–2010); Barbara Ryder (2000–2008); Kevin Scott (2006–2010); Jeannette Wing (2006–2010); David S. Wise (2004–2008).

SGB Council Representatives: Norman Jouppi (2006–2007); Robert A. Walker (2006–2008); Alexander Wolf (2005–2007)

Board Chairs and Standing Committees

Education Board: Andrew McGettrick/Eric Roberts;
SGB Board: Joseph A. Konstan; **Membership Services Board:** Terry Coatta; **Publications Board:** Ronald Boisvert, Holly Rushmeier
Professions Board: Stephen R. Bourne **USACM Committee:** Eugene Spafford

SIG Chairs

SIGACCESS: Vicki Hanson **SIGACT:** Richard Ladner;
SIGAda: John McCormick; **SIGAPL:** Guy R. Larocque;
SIGAPP: Barrett Bryant; **SIGARCH:** Douglas C. Burger;
SIGART: Maria Gini; **SIGBED:** Lothar Theile;
SIGCAS: Florence Appel; **SIGCHI:** Julie Jacko;
SIGCOMM: Mark Crovella; **SIGCSE:** Barbara Boucher Owens;
SIGDA: Diana Marculescu; **SIGDOC:** Brad Mehlenbacher;
SIGecom: David Pennock **SIGEVO:** Darrell Whitley;
SIGGRAPH: G. Scott Owen; **SIGIR:** Elizabeth Liddy;
SIGITE: Han Reichgelt; **SIGKDD:** Gregory Piatetsky-Shapiro;
SIGMETRICS: Carey Williamson; **SIGMICRO:** Erik Altman;
SIGMIS: Janice Sipior; **SIGMOBILE:** David B. Johnson;
SIGMOD: Raghu Ramakrishnan; **SIGMULTIMEDIA:** Klara Nahrstedt; **SIGOPS:** Doug Terry; **SIGPLAN:** Kathleen Fisher;
SIGSAC: Virgil D. Gligor; **SIGSAM:** Mark W. Giesbrecht;
SIGSIM: Simon J.E. Taylor; **SIGSOFT:** William G. Griswold;
SIGUCCS: Leila Lyons; **SIGWEB:** Ethan Munson

For information from Headquarters: (212) 869-7440

ACM U.S. Public Policy Office:

Cameron Wilson, Director
1100 Seventeenth St., NW
Suite 507
Washington, DC 20036 USA
+1-202-659-9711—office
+1-202-667-1066—fax
wilson_c@acm.org

COMMUNICATIONS

OF THE ACM • *A monthly publication of the ACM Publications Office*

ACM, 2 Penn Plaza, Suite 701, New York, NY 10121-0701 USA (212) 869-7440 FAX: (212) 869-0481

Editorial Advisory Board

Gordon Bell; Hal Berghel; Grady Booch;
Nathaniel Borenstein; Vinton G. Cerf;
Kilnam Chon; Jacques Cohen; Larry L. Constantine;
Jon Crowcroft; Peter J. Denning; Mohamed E. Fayad;
Usama Fayyad; Christopher Fox; Ravi Ganesan;
Don Hardaway; Karen Holtzblatt; Pattie Maes;
Eli Noam; Cherri Pancake; Yakov Rekhter;
Douglas Riecken; Ted Selker; Dennis Tschritzi;
Ronald Vetter

Publications Board

Co-Chairs: Ronald F. Boisvert and Holly Rushmeier
Board Members: Gul Agha; Michel Beaudouin-Lafon; Carol Hutchins; Mary Jane Irwin; Ee-ping Lim; Keith Marzullo; M. Tamer Ozsu; Vincent Shen; Mary Lou Soffa; Ricardo Baeza-Yates

ACM Copyright Notice

Copyright © 2008 by Association for Computing Machinery, Inc. (ACM). Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and full citation on the first page.

Copyright for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers, or to redistribute to lists, requires prior specific permission and/or fee. Request permission to publish from: Publications Dept. ACM, Inc. Fax +1 (212) 869-0481 or email <permissions@acm.org>

For other copying of articles that carry a code at the bottom of the first or last page or screen display, copying is permitted provided that the per-copy fee indicated in the code is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, 508-750-8500, 508-750-4470 (fax).

Subscriptions

Annual subscription cost is included in the society member dues of \$99.00 (for students, cost is included in \$40.00 dues); the nonmember annual subscription is \$189.00 See top line of mailing label for subscription expiration date coded in four digits: the first two are year, last two, month of expiration. Microfilm and microfiche are available from University Microfilms International, 300 North Zeeb Road, Dept. PR, Ann Arbor, MI 48106; (800) 521-0600.

Single Copies are \$8 to members and \$17 to nonmembers. Please send orders prepaid plus \$7 for shipping and handling to ACM Order Dept., P.O. Box 11414, New York, NY 10286-1414 or call (212) 626-0500. For credit card orders call (800) 342-6626. Order personnel on duty 8:30–4:30 EST. After hours, please leave message and order personnel will return your call.

Notice to Past Authors of

ACM-Published Articles ACM intends to create a complete electronic archive of all articles and/or other material previously published by ACM. If you were previously published by ACM in any journal or conference proceedings prior to 1978, or any SIG newsletter at any time, and you do not want this work to appear in the ACM Digital Library, please inform permissions@acm.org, stating the title of the work, the author(s), and where and when published.