



## Communications of the ACM

### JANUARY

*Special Issue: Communications 50<sup>th</sup> Anniversary*

To honor this milestone, many leading contributors from Communications' past, present, and future share their memories and perceptions in this special issue. Their accounts should serve to inspire, influence, and teach - a legacy befitting ACM's premier publication.

### FEBRUARY

*Cover Story: Alternate Reality Gaming*

A new genre of digital gaming is designed to blur the player experience between the digital world inside the game, and the real world outside of the game.

### MARCH

*Cover Story: Urban Sensing: Out of the Woods*

In the world of personal communication, pervasive computing has entered every backpack, purse, and coat pocket in the form of a mobile phone. This contextual swing is characterized as "urban sensing," and it promises a fundamental shift from science and engineering into the realms of politics, aesthetics, interpretation, and motivation. A move, industry observers contend, that warrants careful scrutiny.

### APRIL

*Cover Story: The Psychology of Security*

The most elegant and intuitively designed interface does not improve security if users ignore warnings, choose poor settings, or unintentionally subvert corporate policies. The fundamental user problem in security systems involves how people think of risk and how those thoughts guide their behavior. Risk and uncertainty are extremely difficult concepts for people to evaluate. For designers of security systems, it is important to examine how users

evaluate security risks and understand why good users make bad decisions.

## **MAY**

*Cover Story: **Web Searching in a Multilingual World***

The World Wide Web brings a wealth of information to your fingertips, but still requires a proficiency in English. This report covers the latest advances in Web search engine prototypes being developed in Chinese, Spanish, and Arabic.

Also:

- Object-oriented design
- A conceptual modeling framework that employs graphics and text
- Reducing Internet auction fraud
- Improving the chain-management process
- Computer Science and synthetic biology
- Heterogeneous agent architectures

## **JUNE**

*Cover Story: **Organic User Interfaces***

There's a quiet revolution in display manufacturing technology taking place. New technologies have led to displays that are so thin and flexible they resemble paper. Indeed, we are on the brink of a new paradigm in computer user interface design: one in which computers can have any organic form or shape. One where any object, no matter how complex, dynamic, or flexible its structure, may display information.

Also:

- Web industry leaders argue that personal accountability must be a strong component of great technological work.
- A report on outsourcing indicates that the best project management skills cannot guarantee successful offshore outsourcing.
- The effectiveness of BRAP (Browser and Applications) forensics.
- Ubiquitous access initiatives in health care help allay potentially fatal errors, improve patient safety, and boost overall quality of care.

## **JULY**

This issue ushers in a new era for *Communications*—its content its look, its editorial engine all driven to take the publication in a new direction reflecting the changing dynamics of the computing field and ACM membership. The cover story provides an interdisciplinary approach to understanding the Web, written by Web Science leaders James Hendler, Nigel Shadbolt, Wendy Hall, Tim Berners-Lee, and Daniel Weitzner.

Also:

- Inspiring research papers, repositioned for *Communications'* diverse audience and preceded by a one-page summary that describes the impact and implications of the work
- Revolutionary changes in computer architecture, transactional memory, XML trends, relational databases, and flash storage
- Columnists argue legal decisions, emerging markets, computing curriculum, and computer science's image crisis.

News:

- Cloud computing
- Quantum computing
- Dependable computing

## **AUGUST**

Game technology runs throughout this issue. In "Designing Games with a Purpose," authors advocate an innovative approach to game design that channels human brainpower to create a class of games in which people perform tasks that computers cannot.

Also:

- Scaling Games and Virtual Worlds
- Computer Science and Game Theory
- The Rise and Fall of CORBA
- Leading Chief Technology Officers Lament the State of Storage

Research Highlights:

- Evaluation Methodology for the 21st Century
- Composable Memory Transactions

News:

- Accessible Technologies
- Distributed Algorithm Mechanism Design
- Gaps in the Digital Divide

## **SEPTEMBER**

Information Integration and the Enterprise

Research Highlights:

- Tight Bounds for Distributed Selection
- TxLinux and MetaTM: Transactional Memory and the Operating System

News:

- Spectral Graph Theory
- Video Encoding
- Privacy Technologies

Also:

- Formal Methods
- How Do You Model State? Count the Ways
- Power Management
- Beyond Google: Automated Answering on the Web
- Design and Code Reviews in the Internet Age
- Q&A with Randy Pausch

**OCTOBER**

On the eve of an historic presidential election, *Communications* explores the controversies surrounding electronic-voting technologies, including a debate between leading voices on related issues.

Research Highlights:

- Scene Completion using Millions of Photographs
- Expander Flows, Geometric Embedding, and Graph Partitioning

News:

- The Deep Web
- Green Computing
- The Limits of Computability

Also:

- Evaluating Information Contents
- Code Spelunking
- Document Design

- GPU Architectures
- Selecting Frameworks
- The Topology of Dark Networks
- A Conversation with Pat Selinger

## **NOVEMBER**

*Communications* pays tribute to Jim Gray with a selection of articles remembering the scientist and the man.

Also:

- If I Were Darwin for a Day: A Look at ESB
- LOCKSS
- The Reputational Landscape
- Hidden in Plain Sight
- Q&A with Daphne Koller, recipient of the first ACM-Infosys Foundation Award

## **DECEMBER**

An editorial debate on Threads, a controversial new structuring principle for computing curricula that provides a path for computer scientists seeking to reinvent CS degree programs.

Also:

- Java Unsafe
- WisePad Services for Sense-Impaired Users
- Games and Security
- Adaptive Personalization
- The Long Road to 64 Bits