



Association for
Computing Machinery

Advancing Computing as a Science & Profession

ACM Professional Chapter Newsletter



Fall 2009

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DISTINGUISHED SPEAKERS PROGRAM (DSP):

**Have you invited a speaker from ACM's
Distinguished Speakers Program to your Chapter?**

The DSP is ACM's primary outreach effort for professional and student Chapters, offering a group of committed speakers to travel to Chapter meetings to talk on a variety of computing topics. This past year was even busier than last year with 54 speaking engagements taking place. Some of the talks include:

- ◆ Making Information Safe: Past, Present & Future
- ◆ Successful Community-Based Design Projects
- ◆ Content-Based Networking: A New Communication Service
- ◆ Software Development: More Than Just Programming
- ◆ Tradeoffs Between Model Abstraction, Execution Speed, and Accuracy
- ◆ Understanding the Business of Open Source and How to Integrate Open Source Into your Business
- ◆ 3D Computer Graphics and the World Wide Web
- ◆ MANET Simulation Studies: The Incredibles
- ◆ Virtual Reality and Space
- ◆ Software Under Siege: Viruses and Worms
- ◆ When Good Algorithms Yield Bad Software

The DSP is offered to all ACM Chapters in good standing. ACM funds the speakers' travel to Chapter events; chapters are responsible only for local expenses, like hotel and meals. Speakers are volunteers, so no honoraria are required. If you would like to see additional topics covered by speakers, or if you have the names of outstanding speakers who have addressed your Chapter (or you have seen speak at another venue), please email us at speakers@acm.org.

We encourage your feedback!

Welcome New Speakers:

We include one or more titles of their talks.



Maggie Dunham
Southern Methodist
University, Dallas TX
Adventures in Data Mining



Daniel Ángel Jiménez
University of Texas,
San Antonio TX
*Recent Advances in Branch
Prediction*



Radu Marculescu
Carnegie Mellon University,
Pittsburgh PA
*Designing Networked Embedded
Systems at Nanoscale
Networks-on-Chip:
Why, What and How?*



Philippe Kruchten
University of British Columbia,
Vancouver CA
*Architectural Design
Decisions & Architectural
Agile Situated*



Anthony Martinez
IBM Global Business Services
Innovation That Matters



Dilma Da Silva
IBM T. J. Watson Research
*System Software for Cloud
Computing*



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Want to Request a Speaker?

Visit www.dsp.acm.org to browse the names of our speakers, or search by subject area to find a matching speaker. Use the online Request Form found at the bottom of each talk abstract. Requests are reviewed at ACM headquarters and then forwarded to the speaker, who responds directly to the DSP Request Form. Once a date has been agreed upon by the speaker and the Chapter, ACM grants tentative approval, and waits for the anticipated travel expenses (from the speaker) before granting final approval. ACM reimburses the speaker directly. Chapters will need to arrange lodging and meals and on-site logistics.

Due to the high costs sometimes experienced with airline travel, Chapters are encouraged to organize tours of schools whenever possible.

available include PHP, MySQL, Tomcat, and Perl. ACM will consider loading open source software that Chapters may need to develop and maintain their web pages. To take advantage of this service, Chapter officers should contact ACM Local Activities at: local_activities@acm.org for authorization for a server account. Requests for open source software should be sent, along with your server account information to: ishelp@acm.org.

Wikis and Blogs

Chapter officers may use a chapter-specific wiki to carry out activities that require collaborative writing, document sharing, and website management. Two wiki engines are available – Mediawiki and MoinMoin. ACM also offers the Moveabletype publishing platform for Chapter officers and members to use in setting up blogs relevant to their Chapter's activities and interests. To request a Chapter wiki or blog, please use this request form: http://campus.acm.org/public/infodir/chapter_blog_request.cfm.

Broadcast Mail

To facilitate communication between Chapter members and officers, ACM provides Chapters with broadcast mail capabilities using the LSoft mailing software. The list.acm.org forwarding aliases are protected against viruses and spam by the ACM enterprise-wide filtering solution offered through Postini.

News Alerts and Online Magazine

The following ACM news-alert services are available to Chapter members:

- ◆ **TechNews:** ACM's tri-weekly news service, one of our members' most highly rated benefit.
- ◆ **CareerNews:** ACM's bi-monthly career e-newsletter filled with helpful tips, trends, and insights.
- ◆ **MemberNet:** ACM's monthly member e-newsletter that provides a window to the full breadth of ACM's activities and people.



SERVICES FOR PROFESSIONAL CHAPTERS

ACM offers the following services to all Professional Chapters:

Chapter website hosting

Chapter officers may set up their chapter website on ACM servers, with the URL: http://your_chapter_name.acm.org. Officers may load files through Secure FTP over SSH to maintain Chapter web pages. Tools



You can enroll your Chapter members in these news services by logging into your Chapter's Administrative Interface (CAI) and adding the names and email addresses of your Chapter members: https://campus.acm.org/chapter_admin.

ACM's Local Activities Calendar

We encourage you to populate the Local Activities Calendar with your Chapter's upcoming events. The calendar lists professional and student chapter events, as well as non-ACM events relevant to local IT communities. We have begun pointing other organizations to this calendar as a way of promoting the professional development of their employees/members, so be sure to add your events on a regular basis. You can view the calendar at: http://campus.acm.org/public/chapters_conf_cal/index.cfm.

Chapter Announcement List

Chapters are encouraged to send their announcements via the Chapters Announcement List, managed by ACM Headquarters. Messages are sent to ACM members in a particular geographic area,

ACM Welcomes Its Newest Professional Chapters

- ◆ ACM Mexico Professional Chapter
- ◆ Austin ACM SIGGRAPH Professional Chapter
- ◆ Beijing ACM SIGMM Chapter
- ◆ Centrifuge Info Tech
- ◆ East Carolina Chapter of ACM
- ◆ Greece ACM SIGCHI (GrCHI)
- ◆ Madrid ACM SIGGRAPH
- ◆ Metro Manila ACM SIGGRAPH
- ◆ Slovakia ACM Professional Chapter
- ◆ The DWC Professional Chapter
- ◆ Timisoara Chapter of the ACM
- ◆ Dubai Women's College Professional ACM Chapter

according to ZIP (for U.S.) or postal codes (outside the U.S.). Chapters are limited to two messages annually, usually during the Fall and Spring. We cannot disclose the email addresses and names of ACM members. Members who have chosen not to receive correspondence from ACM headquarters are excluded from these lists.

Chapter Mailing Labels

ACM will produce a CSV file of professional, student and/or SIG members in your local area. U.S. Chapters will need to provide an appropriate zip code range; chapters outside the U.S. will need to provide a list of cities for the generation of mailing labels.

Chapter Administrative Interface

ACM has improved the Chapter Administrative Interface, accessible by a Chapter web account. The interface allows you to update your Chapter officer and member lists, submit events to the Local Activities Calendar, and complete your annual report. If you have not created a Chapter login, please contact ACM Local Activities as soon as possible: local_activities@acm.org.

HIGHLIGHTS OF UPCOMING ACM INTERNATIONAL EVENTS:

ACM Mobility Conference
September 2nd – 4th
Nice, France,
Singapore ACM Chapter

Festival de Cine de Bogota
October 1st – 9th
Bogota, Colombia
Bogota ACM SIGGRAPH

Ukrainian ACM Chapter Workshop
October 21st
Kyiv, Ukraine

SPARK Animation'09
September 16th – 20th
Vancouver, BC, Canada
Vancouver ACM SIGGRAPH

Annual Convention
October 18th – 20th
Beijing, China
Beijing ACM SIGGRAPH

The International Conference on Management Of Emergent Digital EcoSystems
October 27th – 30th
Villeurbanne, France
French ACM SIGAPP



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ACM'S FELLOWS & ADVANCED MEMBER GRADE PROGRAMS

The ACM Fellows Program

The ACM Fellows Program is ACM's most prestigious member grade recognizing the top one percent of ACM members for their outstanding accomplishments in computing and information technology and/or outstanding service to ACM and the larger computing community.

The ACM Distinguished Member Recognition Program

The ACM Distinguished Member Program recognizes up to 10% of the top ACM members, who have at least 15 years of professional experience that includes significant accomplishments or impact in the computing field. The grade has three categories: Distinguished Educator, Distinguished Engineer and Distinguished Scientist, recognizing achievements in different areas.

The ACM Senior Member Recognition Program

The ACM Senior Member program, initiated in 2006, includes members with at least 10 years of professional experience who have demonstrated performance that sets them apart from their peers through technical leadership, and technical or professional contributions.

Please visit http://awards.acm.org/html/amg_call.cfm for more information.

A CALL FOR ACM AWARD NOMINATIONS

ACM recognizes outstanding technical and professional achievements within the computing and information technology community. Each year the ACM award committees evaluate contributions of candidates spanning a spectrum of professional

and technological accomplishments.

ACM welcomes nominations for candidates whose work exemplifies the best and most influential contributions to our community, and society at large. Nominations by ACM members offer a great opportunity to recognize esteemed colleagues as well as some of the many unsung heroes in our field.

The deadline for all ACM awards is November 30, 2009, with the exception of the ACM Doctoral Dissertation Award and the SIAM/ACM Award in Computational Science and Engineering, which is September 30, 2009.

Please visit our awards website, <http://www.acm.org/awards>, for descriptions of all our awards, lists of previous award winners with citations, nomination procedures, and contact information for 2009 award committee members.



THE NEW COMMUNICATIONS OF THE ACM MAGAZINE & WEBSITE

Since the debut of the fully redesigned *Communications of the ACM* magazine in 2008, ACM members have been raving about the improve-



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ments. Here are just a few of their comments:

- ◆ “CACM has again become a top scientific journal, with quality standards similar to *Nature or Science*.”
- ◆ “The quality of editorial content, as well as the new research papers & intros, is the reason I plan to remain an ACM member.”
- ◆ “*Communications* is a vastly better magazine as a result of these changes.”
- ◆ “A better mix of practice and research.”
- ◆ “The journal is now more rigorous and technically sound, it has now more emphasis in the scientific principles of the discipline.”

Communications has also launched a new Web site featuring a wide range of high-quality and topical News, Opinion, Research, and Practitioner-oriented content from the magazine, as well as original and user-generated content that is exclusive to the new site. Among the site's numerous features is access to the *Communications* archive spanning more than 50 years of in-depth coverage of the computing profession.

In addition, the site contains extensive blog content, including a group expert blog called the *BLOG@CACM*, which provides a completely new forum for a growing community of the world's leading industry and academic experts on a range of topics within computing, and a Blogroll of established syndicated bloggers that reflects the geographic and intellectual scope of the computing world with entries and related discussions. To explore the new site, go to: <http://cacm.acm.org/>.

THE NEW *acmqueue* WEBSITE

ACM's popular *Queue* magazine has moved completely online with expanded content (print, audio, video, RSS), increased frequency of fresh content, and more

direct engagement with the experts behind the issues.

Content on the new *acmqueue* Web site is written and guided by distinguished and widely known industry experts. The expanded site offers more content and unique features such as: planet queue blogs by *acmqueue* authors who “unlock” important content from the ACM Digital Library and provide commentary; videos; downloadable audio; CTO Roundtable discussions; plus unique *acmqueue* Case Studies.

acmqueue content is also included in each month's issue of *Communications of the ACM*, where it is clearly identified to make it easy to locate. And conversely, on the *acmqueue* site, you'll notice a



CACM stamp at the end of each piece that has appeared in an issue of *Communications*. In addition, an *acmqueue* newsletter subscription option is available, providing subscribers with email alerts whenever new content is published.

Visit the *acmqueue* site today at: <http://queue.acm.org>.



A SUMMARY OF ACM PROFESSIONAL MEMBER BENEFITS

ACM Professional Members enjoy the following member benefits

- ◆ Print (available to most members) and digital-format (available to all) subscriptions to *Communications of the ACM*, ACM's newly redesigned magazine covering all aspects of computing, www.acm.org/publications/cacm.
- ◆ Full access to 600 online books from Safari® Books Online, featuring leading publishers including O'Reilly, <http://pd.acm.org>.
- ◆ Full access to 500 online books from Books24x7®, <http://pd.acm.org>.
- ◆ Full access to over 2,500 online courses in multiple languages and 1,000 virtual labs from Element K®, <http://pd.acm.org>.
- ◆ Access to the Career & Job Center, powered by JobTarget, <http://campus.acm.org/careercenter/>.
- ◆ The option to subscribe to the full ACM Digital Library, which contains full-text of all articles in ACM's journals and magazines, conference proceedings, and SIG newsletters, www.acm.org/dl.
- ◆ The Guide to Computing Literature, with over one million searchable bibliographic citations, extending far beyond ACM's proprietary literature, <http://portal.acm.org/guide.cfm>.
- ◆ The option to join one of 34 Special Interest Groups in all areas of computing, www.acm.org/sigs.
- ◆ The opportunity to join one of the more than 120 ACM local chapters world-wide - meet other computing professionals in your area and attend seminars and lectures by experts in the field, www.acm.org/chapters.
- ◆ The option to subscribe to any of ACM's 45+ journals and magazines at special member-only rates, www.acm.org/publications.
- ◆ Full Member access to the new acmqueue Web site which maintains Queue's popular core content and enhances it with additional functionality and new sources that address the practitioner's need for high-quality, trusted, practical material. planet queue offers an aggregation of practitioner-oriented blogs written by the Queue author community, which now totals nearly 400 contributors, www.acmqueue.org.
- ◆ *TechNews*, our tri-weekly email digest delivers stories on the latest IT news, <http://technews.acm.org>.
- ◆ *CareerNews*, our twice monthly email digest providing career-related topics, <http://careernews.acm.org>.
- ◆ *MemberNet*, our monthly e-newsletter, covering ACM people and activities, <http://membernet.acm.org>.
- ◆ Email Forwarding Address & Filtering Service providing members with a free [acm.org](http://www.acm.org) email address and Postini spam filtering.
- ◆ Email Table-of-Contents Alerts for any ACM journal, magazine, conference proceeding or SIG newsletter.
- ◆ ACM Multiple-Year Renewal option offering flexibility and convenience.
- ◆ ACM's Lifetime Membership provides the option to make a single dues payment for life, www.acm.org/membership/life.





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- ◆ ACM's Member Recognition Program acknowledges the professional accomplishments of our members with three member grades: Senior Member, Fellow, and Distinguished Engineer, Scientist, or Member. For more information visit, <http://awards.acm.org>.
- ◆ Discounts on ACM journals, magazines, books, and conferences.
- ◆ Special Discounts and access to valuable products and services through the ACM's Insurance and Discounts and Special Offers Programs, <http://www.acm.org/membership/discounts/discounts-toc>.

Not an ACM Professional Member yet?

Join ACM and receive a special first year introductory offer at: www.acm.org/learnmore.

ONLINE BOOKS AND COURSES OFFERINGS:

New Books & Courses

ACM's Online Books and Course offerings (<http://pd.acm.org/>) continues to be one of the most popular parts of the ACM website. ACM swapped books in and out of our collections in June and the newly added books can be seen at http://pd.acm.org/books/new_books.cfm. A number of new courses were added into our online courses in the areas of Adobe, Business, CISCO, Linux, Microsoft, Networking, Project Management and Programming. Login into our online courses (<https://pd.acm.org/lmnk/ek.cfm>) and see the entire expanse of courses that ACM offers to our membership.

Our four most popular parts are:

- ◆ 175 Ways to Get More Done in Less Time!
(http://pd.acm.org/b24x7_book_detail.cfm?isbn=9780965878845)

- ◆ The Art of Software Architecture: Design Methods and Techniques (https://pd.acm.org/books/login_books.cfm?isbn=9780471228868)
- ◆ Beginning iPhone Development Exploring the iPhone SDK (http://pd.acm.org/book_detail.cfm?isbn=9781430216261)
- ◆ The Twitter Book (http://pd.acm.org/book_detail.cfm?isbn=9780596804077).

Our three most popular courses are:

- ◆ ITIL Foundation v3.0 (Part 1): ITIL Concepts
- ◆ Introduction to Java™ Programming Language WJ-1101-SE6 (Sun) v2.0
- ◆ Linux+™ Certification Second Edition (Part 1): Linux Introduction
- ◆ Explore each one and see why members are utilizing these books and courses.

Course Evaluations

ACM emails course evaluation surveys to all members who have completed a course. Naturally, our goal is to share members' feedback about specific courses. If you are taking a course, please look for our email message to evaluate the course when you have completed it. Your feedback will help us to improve our course offerings!

ACM'S PROFESSIONAL DEVELOPMENT SURVEY FOR PRACTITIONERS & MANAGERS:

ACM has been conducting a survey of members who are practitioners and managers in order to get a more comprehensive idea of what type of technical and professional help is desired by these member constituencies. The results of this study will help ACM as we work to improve the products and services that we provide to our Practitioners and Managers. When the results of this study are received, we will share them with our members.



Who IS the ACM?

Whether you are a new or long-standing member of ACM, you've probably wondered about its make-up as an organization. We bring you some of the highlights from the 2009 Membership Satisfaction Survey:



The 2009 ACM Membership Satisfaction Survey

Professionals:

Extremely/Very Satisfied with Membership: . **66%**
Somewhat Satisfied/Neutral:..... **30%**

Members who rate the value of Membership as

Excellent/Very Good/Good **79%**

Primary Job Responsibilities:

Practitioner **43%**
Software/Applications/Designer
Developer, Engineer **27%**
Systems Architect **13%**
Systems Administrator **3%**
Educator **23%**
Teaching Institution **15%**
Research Institution..... **8%**

Manager: **16%**
Technical **10%**
Corporate..... **6%**

Researcher: **11%**
Academic..... **5%**
Industry **4%**
Government..... **1%**

Members who do consulting:..... **31%**
Members who are self-employed:..... **12%**

Members' Employers' Primary Line of Business:

Software development services..... **21%**
Software [only] manufacturer..... **13%**

Consulting..... **11%**
Financial/Insurance/Banking **8%**
Telecommunications..... **7%**
Engineering..... **7%**
Aerospace **5%**
Medical/Healthcare **4%**
Manufacturing [non-computer] **4%**
Manufacturer of computer hardware only.... **3%**
Research Institute..... **2%**
VAR/OEM/Systems Integrator **2%**
Construction/Mining/Agriculture **1%**
Publishing **1%**
Utilities **1%**
Legal..... **1%**
Entertainment..... **<1%**

Type of Organization Members are Employed by:

Corporate/other for-profit organization **53%**
Education (non-profit or for-profit) **29%**
Government (Federal/State/Local) **6%**
Research Institute..... **5%**
Other non-profit organization..... **3%**

Years of Computing Experience:

5 years or less **9%**
6-to-10 years **12%**
11-to-19 years **27%**
20 years or greater..... **52%**
Mean years of experience..... **18.4 years**

Members with Advanced Degrees:..... **69%**

continued



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Members' Age Groups:

22-to-30	10%
31-to-40	27%
41-to-50	28%
51-to-59	21%
60 or older.....	13%
Mean age of members.....	45.5

Length of Membership:

Three years or less	42%
4-to-5 years.....	10%
6-to-10 years	16%
11+ years.....	32%
Means years of membership	7.1

Reasons for Joining ACM:

Digital Library.....	34%
<i>Communications of the ACM</i>	34%
Support the Computing Profession	28%
Free Online Books	24%
Practical Information to help me in my job ..	27%
Wide variety of ACM Publications.....	20%
Free Online Courses	20%
Prestigious Credential on my resume	14%
SIG Conference Proceedings.....	16%
ACM's mission and ideals	14%
Current research through the SIGs	12%
Network with others at conferences.....	9%
A colleague recommended joining	8%

BECOME A MENTOR

ACM continues to partner with MentorNet, an organization that promotes e-mentoring relationships between students (protégés) and professionals (mentors). All ACM Student Members are eligible to participate in this program. ACM Members are encouraged to register as mentors! MentorNet estimates that maintaining a relationship with a protégé may take an average of 20 minutes per week, but this certainly depends on the match.

**Calling All ACM Members:
You can Become a Mentor!**

1. To participate you must join the MentorNet Community; community members register by providing their name, a valid email address and a username and password. To join, please go here: <http://www.mentornet.net/community/public/join.aspx?pre=y>. You will be asked to complete a Mentor Profile that asks for information your Profile on your educational and professional background, preferences for a protégé and your comfort in discussing common mentoring topics.

2. Then you'll be asked if you want to be a mentor or find a mentor. Click on the appropriate button. Once a mentor has been matched, they receive an email that gives them 10 days to return to the MentorNet site to confirm the mentor's availability. Once the mentor's availability is confirmed, the e-mentoring relationship begins.
3. The official e-mentoring relationship lasts approximately 8 months. Mentors and protégés can view each other's profiles to learn about each other, and they begin receiving regular discussion suggestions from MentorNet to help start and build the relationship.

Why Mentor?

"In 1989, as a new Ph.D. student, I was lucky enough to win an AT&T Graduate Research Program Grant. In addition to a cash award, I was provided with a summer internship, and most importantly, a mentor. My mentor, Brian Kernighan, helped me navigate graduate school. **Having learned the value of mentoring, I became a mentor myself.** For the past 10 years, I have participated in the MentorNet e-mentoring program,



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in which I corresponded with students by email, helping them navigate through their higher educations and early careers. . . I have found that I benefit from mentoring as much as my student protégés! To help others with their careers, I have had to better understand myself and identify those behaviors that have contributed to my successes and my failures. Most of all, mentoring has made me a better listener. . . There is no substitute for a good mentor in life, whether professionally or in any other dimension."

Mary Fernandez

Principal Technical Staff Member,
ATT Labs – Research

CSTA ORGANIZES LOCAL CHAPTERS

The Computer Science Teachers Association (CSTA), founded by ACM, was awarded a two-year grant [in 2008] with the overall objective of developing a cohort of K-12 teachers [in the U.S.] to serve as educational leaders at the state level and develop outreach strategies in their individual states focused on establishing K-12 computer science as an essential academic discipline.

Many states have no certification requirements for teaching computer science and standards vary widely, often being determined at the local level. The development of educationally and economically sound education policies requires computer science leaders at the state level who can effectively address key curricular, certification, and professional development issues. As the only national association dedicated specifically to improving K-12 computer science education, CSTA is the organization most suited to working with computer science educators across the country to help build a strong cadre of effective K-12 computer science education leaders.

Seventy-five people from 46 states are now members of the cohort. The first activity for the par-



ticipants was to attend a three-day workshop either in July 2008 or July 2009. These workshops were rich with activities that focused on the leadership qualities needed for effective advocacy, identifying and building partnerships with appropriate stakeholders, and developing a toolkit of advocacy materials to be used in each state.

During the time since the first Leadership Cohort Workshop in July 2008, members have been busy with advocacy efforts in their various states. Although those who attended the second workshop in July 2009 are just beginning their efforts they hope to gain from lessons learned to date.

One of the key efforts encouraged has been the creation of local CSTA chapters. Local chapters provide a support network for computer science teachers to share their ideas, plan outreach efforts and professional development, and work with local colleges and universities. Leadership Cohort members have been instrumental in establishing new local chapters in the following areas: Arizona, Buffalo, Chicago, Houston, Long Island, Northern New Jersey, Ohio, Oregon, San Diego, Southeastern Virginia, Southern California, and Southern New Jersey Shore.

In addition, Leadership Cohort members have presented at various conferences, met with local superintendants, directors of curriculum at local and state levels, worked with local business leaders and set out goals for the upcoming year.

You can keep up to date on cohort activities by reading the CSTA Advocate blog, <http://blog.acm.org/csta/>.



ACM IN THE NEWS

Five Futuristic Interfaces on Display at ACM SIGGRAPH 2009:

"The annual meeting of ACM's Special Interest Group on Graphics and Interactive Techniques, SIGGRAPH 2009, [took] place in New Orleans [last] week. The event brings together some of the world's best digital artists and computer researchers, and is a showcase for some interesting new interfaces. Here are five particularly cool ideas that [were] on display at this year's event:"

◆ **"Touchable Holography:**

A team of researchers at the University of Tokyo led by Hiroyuki Shinoda developed a display that lets users "touch" objects that appear to float in space in front of them."

◆ **"Augmented Reality for Ordinary Toys:**

Frantz Lasorne, a student at L'Ecole de Design in France, invented an ingenious way to breathe new life into old toys."

◆ **"Hyper-Realistic Virtual Reality:**

A team from INRIA and Grenoble Universities in France demoed a new virtual reality system called Virtualization Gate that tracks users' movements very accurately using multiple cameras, allowing them to interact with virtual objects with new realism."

◆ **"3D Teleconferencing**

Researchers at the the University of Southern California demoed Headspin, a 3D teleconfer-

encing system that maintains eye contact between a three dimensional head and several participants on the other end of a connection."

◆ **"Scratchable Input:**

Chris Harrison, a researcher at Carnegies Mellon University, demonstrated his new scratch input technology. The system turns any surface into an instant input device by sensing the unique sound produced when a fingernail is dragged across it."

You may view the above story by Will Knight, Technology Review, at: <http://www.technologyreview.com/blog/editors/23940/>.

Unix turns 40: The past, present and future of a revolutionary OS, Gary Anthes, Computerworld (07/07/2009)

"Forty years ago this summer, a programmer sat down and knocked out in one month what would become one of the most important pieces of software ever created... In August 1969, Ken Thompson, a programmer at AT&T Bell Laboratories... wrote the first version of Unix in assembly language... Thompson and a colleague, Dennis Ritchie, had been feeling adrift since Bell Labs had withdrawn earlier in the year from a troubled project to develop a time-sharing systems called Multics... After batting around some ideas for a new system, Thompson wrote the first version of Unix, which the pair would continue to develop over the next several years with the help of colleagues Doug McIlroy,





Joe Ossanna and Rudd Canaday.”

“A powerful operating system for interactive use need not be expensive either in equipment or in human effort, Ritchie and Thompson would write five years later in the *Communications of the ACM* (CACM), the journal of the Association for Computing Machinery. [We hope that] users of Unix will find that the most important characteristics of the system are its simplicity, elegance, and ease of use.”

**Gap between boys and girls persists in tech,
Chris O’Brien, MercuryNews.com, 06/16/2009**

“...According to a study released [in June], there remains a depressingly large gap between the way teenage girls and boys view computers and careers in computer science. The study was conducted by [WGBH] and the Association for Computing Machinery...through a grant from the National Science Foundation. In a nationwide survey of college-bound high school students ages 13 to 17, the study found that 45% of boys thought majoring in computer science would be ‘very good,’ compared with 10 percent of girls. When asked about a possible career in computer science or software design, the study found a similar gap, with 38 percent of the boys rating it ‘very good’ compared with 9 percent of the girls.”

**MORE ON...THE NEW IMAGE OF
COMPUTING (NIC), FIRST PHASE
REPORT**

The NIC, a project co-sponsored by WGBH and ACM, is funded by the National Science Foundation. This report covers the first phase of the NIC initiative: market research and initial message testing. In late 2008, a national online survey of college-bound high school students, ages 13-17, whose overall gender and ethnic representation mirrored that of all incoming U.S. freshmen. The purposes of this survey were to:



- ◆ Access the current attitudes toward CS as a college major and career choice among college-bound high school students;
- ◆ Assess these same attitudes among Hispanic girls and African American boys, two of the groups most underrepresented in CS;
- ◆ Develop messages that portray CS in a variety of ways; and
- ◆ Gauge initial responses to those messages among teens.

Key Data/Findings:

- ◆ Most college-bound males have a positive opinion of computing and CS as a possible college major or career.
- ◆ College-bound African American and Hispanic teens are more likely than their white peers to be interested in computing.
- ◆ College-bound females, regardless of race and ethnicity, are significantly less interested than boys are in computing. More girls tend to associate computing with “typing,” “math,” and “boredom,” while boys are more likely to associate computing with “video games,” “design,” “electronics,” “solving problems,” and “interesting.”



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The 3 messages that tested best were:

- ◆ **Computing puts you in the driver's seat.** Computing gives you the power to imagine new languages, new worlds, and new ways of improving our lives by putting better ideas into actual practice in our communities. **Rated highest with African American and Hispanic boys.**
- ◆ **Computing opens doors.** From transportation and energy to video games and space exploration, few careers enjoy so many real-world applications and few open as many doors as computing. **Rated highest with boys and those already interested in computing careers.**
- ◆ **Computing empowers you to do good.** With computing, you will be able to connect technology to your community and make a world of difference – reducing energy consumption, improving healthcare, enhancing security, reducing pollution, and advancing learning and education. **Rated highest with girls and Hispanics.**

Although the NIC Initiative was originally designed to create messages that target college-bound high school students, especially African American boys and Hispanic girls, the research showed little racial /ethnic differentiation in young people's attitudes toward CS. It does, show, however, a significant gender gap. Because of this, the NIC is shifting focus and will initially concentrate on girls as a special target audience.

If you'd like to take a look at the entire report, you can visit ACM's Pressroom where you will find our Press Release about the initial findings and a link to the full report: <http://www.acm.org/press-room/news-releases/nic-interim-report/view>.



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