

**FY2006 Annual Report of the
U.S. Public Policy Committee of ACM
(USACM)**

For the Period July 1, 2005 – June 30, 2006

USACM OVERVIEW

USACM is the U.S. Public Policy Committee of the Association for Computing Machinery (ACM). USACM members include leading computer scientists, engineers, lawyers, students, and other professionals from industry, academia, and government.

USACM OPERATIONS AND GOVERNANCE

USACM operates through a transparent and democratic process to reach consensus on policy activities. Draft policy statements, position papers, and letters are usually posted to USACM at-large for review and comment before being considered by the Executive Committee of USACM (USACM-EC) for final review and approval. Otherwise, the USACM-EC acts based on consensus. The USACM-EC normally conducts a monthly conference call with ACM staff to update and coordinate activities. Finally, the USACM-EC meets in person at least once a year to review policy activities and determine priorities. ACM's Office of Public Policy in Washington, D.C. and ACM headquarters staff in New York support the work of USACM and are responsible for raising issues within the committee.

At the close of FY2006 the USACM-EC consisted of the following members: Eugene Spafford (USACM Chair), Annie Antón (NCSU), Charles Brownstein (CSTB), Dave Farber (Carnegie Mellon University), Edward Felten (Princeton), Andrew Grosso, Harry Hochheiser, Jeanna Matthews (Clarkson Univ., SIG Representative), David Patterson (ACM President), Barbara Simons (former ACM President), Ollie Smoot, Emil Volcheck (NSA, SIG Representative), and John White (ACM CEO). Stu Feldman, ACM's newly elected President and USACM member, will replace David Patterson on the USACM-EC starting on July 1, 2006. Observers on the USACM-EC include Pat Ryan (ACM COO), Cameron Wilson (ACM Director of Public Policy), David Bruggeman (ACM Policy Office), and Virginia Gold (ACM HQ). Complete information about current USACM members is available at <<http://www.acm.org/usacm/members.html>>.

FY2006 OVERVIEW AND HIGHLIGHTS

USACM's policy work has been primarily focused around four themes: 1) Advancing the computing discipline, 2) seeking balance between innovation and intellectual property protection, 3) protecting privacy in a technology-intensive society, and 4) advocating for secure and reliable computing systems. What follows are USACM's FY2006 highlights. The sections that follow provide a chronological listing of USACM's activities and more detail on each topic.

Advancing the Computing Discipline

USACM Calls Department of Defense Research Restrictions Unnecessary – In 2005, the Department of Defense proposed broad new restrictions on foreign nationals doing research on sensitive technologies. USACM, along with numerous other organizations, filed comments arguing the proposal would increase the cost of research, unfairly

discriminate against foreign researchers, and jeopardize the fundamental research exemption that has long promoted an open and fertile research environment. No final rule-making on this topic has yet occurred. On a related issue, the Department of Commerce withdrew restrictions on foreign nationals it had proposed.

ACM Releases Globalization Report – ACM released its major report on the globalization and offshoring of software finding that, despite the media drumbeat on offshoring, the demand for IT jobs remains strong. However, that doesn't mean countries can be complacent. The study also found that global competition is fierce and growing; offshoring and globalization will continue to be part of corporate strategies; and if countries want to compete in this marketplace they must adopt strategies that attract, educate, and retain the best IT talent. This is the first study that looks at offshoring in the IT field from a global perspective, and was pulled together by a diverse group of computer scientists, social scientists, and labor economists from around the world. Although this report was not directly a USACM activity, it had some significant ties to USACM and significantly involved the Washington Policy Office staff.

Computing Leaders Commend Congress for Increasing Computer Science Funding – USACM and the Computing Research Association (CRA) released a joint statement commending Congress for fully funding the President's American Competitiveness Initiative (ACI). The legislation would provide an eight percent increase in research funding at the National Science Foundation – an increase of \$439 million over last year's level – and a \$104 million increase to the core laboratories of the National Institute of Standards and Technology. Both increases are key parts of the ACI proposed by the President in his State of the Union address in January. USACM and CRA have long advocated the need for robust basic research funding for computer science to bolster innovation, economic growth and US competitiveness.

Seeking Balance Between Innovation and Intellectual Property Protection

USACM Releases Policy Statement on Digital Rights Management – The statement strives to strike a balance between the necessary protection against copyright infringement and the long-held legal uses of copyrighted works by consumers and researchers. The recommendations are meant to encourage competition; support a proper copyright balance; maintain consumer protection; protect privacy and consent; and allow for research and public discourse. USACM recommends limited, targeted policies for DRM consistent with these principles. Ed Felten, USACM Member and leader in developing the statement, briefed key congressional staff on its legislative implications.

Protecting Privacy In a Technology-Intensive Society

USACM Outlines Comprehensive Framework for Data Security Legislation – With numerous reported high-profile data breaches, Congress went to work on several different approaches intended to strengthen protections for personal information. USACM released a letter to members of Congress urging policymakers to adopt a broad approach to protecting personal information based on the long-established Code of Fair Information

Practices (FIPs). Many, but not all, of the principles were adopted by the various legislative efforts. Eugene Spafford, USACM's Chair, met with several key congressional staffers to educate them on USACM's stand. In a follow-up letter USACM commented on the notification and encryption portions of one of the proposals.

USACM Releases Policy Statement on Privacy – To encourage policies that protect individual privacy in the face of widespread use of technology, USACM released a privacy framework focusing on seven basic areas: minimization, consent, openness, access, accuracy, security, and accountability. This framework can help policymakers as they deal with policies impacting the collection, use and storage of personal information. Eugene Spafford, USACM's Chair, briefed key congressional staff on the statement and its implications.

Advocating for Secure and Reliable Computing Systems

USACM Releases Voter Registration Database Study – Citing the danger of voter fraud and disenfranchisement from poorly implemented databases, a committee of experts commissioned by USACM released a report making almost 100 recommendations to state and local officials charged with creating and managing statewide voter registration databases (VRDs). The report is a comprehensive “soup-to-nuts” look at challenges elections officials face in making sure databases are accurate, private, usable, secure, and reliable. The report was also the focus of a panel held at ACM's Computers, Freedom and Privacy Conference.

USACM's Chair Testifies Before Congress on Cyber Security Issues – Testifying before the House Armed Services Committee, Dr. Eugene Spafford stressed the interconnectedness of computer systems today, the fuzzy line between civilian and military infrastructure, the danger in underfunding and shortening the horizon for cybersecurity research, and the need for more well-trained cybersecurity professionals. Dr. Spafford also discussed the danger he sees in continuing to patch and upgrade existing software and systems, especially with respect to the many pieces of commercial off the shelf (COTS) products employed by DoD.

USACM'S Chair Testifies Before Congress on Veterans' Affairs Data breach – Testifying before the House Veterans' Affairs Committee about the recent data breach at the Veterans Affairs (VA) Department, Eugene Spafford argued that this breach was a policy problem rather than a technology one. Noting that government, industry and academia all have systemic problems with how accountability is built into information security policies, two problems commonly emerge: No centralized point of authority to ensure that rules, procedures and good practices are instituted and observed; and employees or contractors make arbitrary decisions to violate security policies so as to make their jobs easier.

DETAILED ACTIVITIES

The following is a more comprehensive and chronological listing of all USACM's activities for the year.

July/August 2005

USACM ANNUAL REPORT RELEASED

USACM released its fiscal year 2005 report, chronicling the activities of the committee. Covering the period July 1, 2004 through June 30, 2005. The report can be viewed at <http://www.acm.org/usacm/PDF/fy2005_annual_report.pdf>

September 2005

SIMONS RECEIVED DISTINGUISHED ENGINEERING ALUMNI AWARD FROM UC BERKELEY

USACM's Barbara Simons received a Distinguished Engineering Alumni Award for Lifetime Achievement from UC Berkeley. Currently she is a member of USACM's executive committee and co-chaired ACM's study of statewide voter registration databases. She helped found USACM and served as chair or co-chair for nearly 10 years. Simons served as ACM President from 1998-2000, is a Fellow of ACM and recipient of its 2001 Outstanding Contribution Award.

October 2005

USACM FILES COMMENTS ON EXPORT PROPOSAL

USACM filed comments with the Department of Defense expressing its concerns with the Department's proposed changes to the Defense Federal Acquisition Regulation Supplement (DFARS). The proposal would mandate that all DOD contracts require contractors to create separate work areas for foreign nationals and foreign persons. Foreigners would also have to possess a separate form of identification noting their nationality. It also would require licenses or exemptions before such persons would have access to any export-controlled technology. USACM members concluded that the proposal would increase the cost of research, unfairly discriminate against foreign researchers, and jeopardize the fundamental research exemption that has long promoted an open and fertile research environment. The DOD proposal mirrors earlier efforts by the Department of Commerce, which were ultimately abandoned.

USACM's full statement on the DOD proposal is available at <http://www.acm.org/usacm/PDF/USACM_DOD_comments.pdf>

SPAFFORD TESTIFIES BEFORE HOUSE ARMED SERVICES COMMITTEE

Eugene Spafford, USACM Chair, and Executive Director of Purdue University's Center for Education and Research in Information Assurance and Security (CERIAS) testified before the House Armed Services Committee hearing on "The Asymmetric and

Unconventional Threats." Dr. Spafford was joined on the panel by David Grawrock (Principal Engineer and Security Architect at Intel) and Paul Kurtz (Executive Director of the Cyber Security Industry Alliance).

In his oral comments, Dr. Spafford stressed the interconnectedness of systems today, the fuzzy line between civilian and military infrastructure, the danger in underfunding and shortening the horizon for cybersecurity research, and the need for more well-trained cybersecurity professionals. Dr. Spafford also discussed the danger he sees in continuing to patch and upgrade existing software and systems, especially with respect to the many pieces of commercial off-the-shelf (COTS) products employed by DoD.

Dr. Spafford's written testimony is available at <<http://acm.org/usacm/PDF/HASC.pdf>>

November 2005

USACM ISSUES LETTER TO VIRGINIA HOUSE OF DELEGATES CONCERNING E-VOTING

USACM sent a letter to Virginia Delegate Tim Hugo, chair of the Joint Subcommittee Studying the Certification, Performance, and Deployment of Voting Equipment, regarding the issue of voter-verified paper records and electronic voting machines. The letter informed lawmakers about the e-voting position that ACM adopted in 2004, which can be found at <<http://www.acm.org/usacm/Issues/EVoting.htm>>. The committee sent a similar letter to lawmakers in Hawaii earlier in 2005. The full letter is available at <http://www.acm.org/usacm/PDF/USACM_evoting_letter_nov16.pdf>.

December 2005

SPAFFORD INTERVIEWED ON DOD CYBERSECURITY

Dr. Eugene Spafford, USACM Chair and Executive Director of Purdue University's Center for Education and Research in Information Assurance and Security (CERIAS), was interviewed as part of a National Public Radio (NPR) Morning Edition piece on Department of Defense (DOD) cybersecurity. An audio archive of the segment is available at <<http://www.npr.org/templates/story/story.php?storyId=5048451>>.

In the NPR piece Dr. Spafford echoes testimony he gave before a House Armed Services Committee hearing, where he urged a different approach to DOD cybersecurity involving a shift away from reliance on commercial-off-the-shelf (or COTS) products and away from systems and software with extraneous functionality. For more information on this hearing, including a link to Dr. Spafford's written testimony, see the entry for October 2005 above.

January 2006

USACM CALLS ON CONGRESS TO ADOPT BROAD DATA SECURITY LEGISLATION

With numerous high-profile data breaches and numerous pieces of legislation meant to address those problems, USACM released a letter to members of Congress urging

policymakers to adopt a broader approach to protecting personal information based on the long-established Code of Fair Information Practices (FIPs). The principles are security, limitation, access, accuracy, accountability, notice and consent. The full text of the letter is available at <http://www.acm.org/usacm/PDF/datasec_letter.pdf>

SPAFFORD MEETS WITH KEY CONGRESSIONAL STAFF

Eugene Spafford, USACM Chair, and Executive Director of Purdue University's Center for Education and Research in Information Assurance and Security (CERIAS) met with staff from the Senate Armed Service Committee to discuss the state of cybersecurity at the Department of Defense. Dr. Spafford also met with staff from the Senate Judiciary Committee and the Senate Commerce Committee to discuss USACM's comments on lawmakers' efforts to make personal information more security. See the previous entry for more information.

February 2006

USACM RELEASES VOTER REGISTRATION DATABASE STUDY

Citing the danger of voter fraud and disenfranchisement from poorly implemented databases, a committee of experts commissioned by USACM released a report making almost 100 recommendations to state and local officials charged with creating and managing statewide voter registration databases (VRDs). The report is a comprehensive "soup-to-nuts" look at challenges elections officials face in making sure databases are accurate, private, usable, secure, and reliable. The report responds to the mandate passed by Congress in the Help America Vote Act that all states create and manage statewide VRDs. The report can be accessed at <<http://www.acm.org/usacm/VRD/>>

ACM GLOBALIZATION REPORT RELEASED

After more than a year of study, ACM released its report examining issues surrounding the migration of jobs within the computing and information technology field. It found that, despite the media drumbeat on offshoring, the demand for IT jobs remains strong. However, that doesn't mean countries can be complacent. The study also found that global competition is fierce and growing, offshoring and globalization will continue to be part of corporate strategies. If countries want to compete in this marketplace they must adopt strategies that attract, educate, and retain the best IT talent. This is the first study that looks at offshoring in the IT field from a global perspective. It was written by a diverse group of computer scientists, social scientists, and labor economists from around the world.

The report attracted attention from the New York Times, CNN and Newsweek; it was also a point of discussion in many of the subsequent visits by the USACM and the policy office staff to policymakers in Washington. The full report, as well as an Executive Summary and Findings document, can be accessed at <<http://www.acm.org/globalizationreport>>.

Although the report was not directly an effort of USACM, it involved several USACM members, as well as the efforts of the ACM's Washington Policy Office.

USACM EXECUTIVE COMMITTEE MEETS

Members of USACM's Executive Committee (EC) met in Washington, D.C. for their 2006 policy summit. The group meets annually in D.C. to set goals for the coming year, review USACM accomplishments during the past year, and discuss the current (and future) technology policy climate. This year the group focused on issues surrounding globalization, innovation, and the issues involved in the organization's recent reports on globalization and voter registration databases. The group received presentations from Moshe Vardi and Bill Aspray, two of the Globalization report's editors, and from Barbara Simons and Harry Hochheiser, members of the study group that produced the voter registration database report.

In addition, EC members heard from David Goldston, Chief of Staff for the House Science Committee, about that committee's policy agenda for 2006 and their perspectives on "competitiveness" legislation. Later in the meeting, the group also received a presentation by Peter Harsha, director of government affairs for the Computing Research Association, about the current funding outlook for information technology research and development.

One outcome of the meeting was to resume efforts to craft policy recommendations on specific topics — such as DRM and Privacy — that could be used in multiple ways, and help to inform future actions. It was also decided that further effort was needed to help inform ACM members of USACM activities.

March 2006

DRM STATEMENT RELEASED

In light of the increasing reliance on technology and technical solutions for digital rights management (DRM), USACM adopted a framework on DRM. The statement strives to strike a balance between the necessary protection against copyright infringement and the long-held legal uses of copyrighted works by consumers and researchers. The recommendations are meant to encourage competition; support a proper copyright balance; maintain consumer protection; protect privacy and consent; and allow for research and public discourse. USACM recommends limited, targeted policies for DRM consistent with these principles.

The statement can be found at <http://www.acm.org/usacm/Issues/DRM.htm>. As DRM continues to be a topic of interest for Congress, this statement will be used to educate Congressional staff and other policymakers.

USACM COMMENTS ON DATA BREACH LEGISLATION

Following its January letter to Congress outlining broad principles for protection of personal information, USACM issued a letter commenting on a specific proposal by the House Energy and Commerce Committee. While the proposed legislation did embrace many of the Fair Information Practices principles USACM recommended, the legislation fell short by requiring notification only if there is a reasonable risk that the stolen information could be used for unlawful practices. Further, a company would be exempt from notification if it encrypted the data or utilized technology to make it otherwise unreadable. USACM argued that such measures did little, if anything, to ensure secure systems. The letter can be found at <http://www.acm.org/usacm/weblog/wp-content/USACM_comment_House_EC_bill_final.pdf>.

FELTEN MEETS WITH KEY CONGRESSIONAL STAFF

Ed Felten, USACM-EC member and Professor of Computer Science at Princeton University, met with staff from Representative Schakowsky's staff to discuss USACM's comments on digital rights management issues. Representative Schakowsky was ranking member of the Commerce, Trade, and Consumer Protection Subcommittee of the House Energy and Commerce Committee, which has jurisdiction over several technology policy issues. During his visit, Professor Felten also testified before the Library of Congress calling for exemptions from the anti-circumvention provisions of the Digital Millennium Copyright Act to conduct research on spyware. USACM released its policy position on digital rights management earlier this year; see the entry in March for more information.

April 2006

USACM CALLS FOR ENSURING PATIENT RIGHTS IN HEALTH IT LEGISLATION

USACM joined a diverse collection of consumer, privacy, technology, and other groups calling on Congress to ensure that patient privacy rights are part of any federal health information technology legislation. Policy issues associated with health information technology usage are clearly a growing area of interest for policy makers with initiatives from both the President and Congress. The group called on Congress to embrace the following principles:

- Restore the patient's right of consent
- Give patients the right to opt-out of having their records in any national or regional electronic health system
- Give patients the right to segregate their most sensitive medical records
- Require audit trails of all disclosures
- Deny employers access to medical records
- Require that patients be notified of all suspected or actual privacy breaches
- Preserve stronger privacy protections in state laws
- Enact meaningful enforcement and penalties for privacy violators

COMPUTING LEADERS VOICE CONCERN OVER HOUSE BUDGET

With the House of Representatives poised to pass its version of the budget for the next fiscal year, USACM joined the computing research community and several IT companies expressing concern that it did not reflect full funding for the President's American Competitiveness Initiative (ACI). The ACI provides about a nine percent increase in funding for basic research at the National Science Foundation, the Department of Energy Office of Science, and the core labs at the National Institute of Standards and Technology. The President's goal is to double funding for those agencies over the next ten years. The text of the letter is available at <http://www.acm.org/usacm/Letters/jointBudgetLetter.pdf>

House and Senate leaders ultimately could not agree on a final budget, but in a positive step, did fully fund the ACI in their annual appropriations bills. For more information on this issue, see the June 2006 entry below.

May 2006

USACM'S VOTER REGISTRATION DATABASE STUDY HIGHLIGHTED AT CONFERENCE

In an effort to educate policymakers about the many technology policy issues they face, ACM's Computers, Freedom and Privacy Conference was held in Washington D.C. It featured a panel exploring issues related to voter registration databases and highlighted USACM's study on the issue. Barbara Simons and Chris Clifton, both members of the study committee, presented the study's findings and discussed its implications. The conference also featured keynote speeches by Senator Leahy, Administration officials, and congressional staff. Other panels focused on a range of topics including Network Neutrality, the role of technology and democracy in China, digital rights management, and many more. For more information on the conference see <http://www.cfp2006.org/index.html>.

SIMONS MEETS WITH KEY CONGRESSIONAL STAFF

Barbara Simons, USACM Executive Committee member, met with staff from the House Science Committee to discuss e-voting technology issues. Simons discussed ACM's policy statement on e-voting machines and recently adopted federal standards for voting systems. These issues became the focus of a hearing held by the House Science Committee in July. The hearing found the federal standards were a good first step, but were far short of what was needed to assure reliable, secure and usable e-voting machines.

June 2006

BRUGGEMAN JOINS PUBLIC POLICY OFFICE

David Bruggeman joined ACM in June as our Public Policy Analyst, where he will be working on a wide range of technology policy issues. He is currently working on his

Ph.D in Science and Technology Studies (with a concentration in Politics and Policy) at Virginia Tech. He has previously worked for the National Academies (in the Committee on Science, Engineering and Public Policy, the Government-University-Industry Research Roundtable and the Forum on Information Technology and Research Universities). He also interned in the satellite division of the National Oceanic and Atmospheric Administration.

David takes over as Public Policy Analyst from David Padgham, who left for a position at the Computer Science and Telecommunications Board of the National Academies.

COMPUTING LEADERS COMMEND CONGRESS FOR INCREASING COMPUTER SCIENCE FUNDING

USACM and the Computing Research Association released a joint statement commending Congress for fully funding the President's American Competitiveness Initiative (ACI). For the full statement, see <<http://www.acm.org/usacm/weblog/index.php?p=383>>. The legislation would provide an eight percent increase in research funding at the National Science Foundation – an increase of \$439 million over last year's level – and a \$104 million increase to the core laboratories of the National Institute of Standards and Technology. Both increases are key parts of the ACI proposed by the President in his State of the Union address in January.

USACM OUTLINES PRIVACY RECOMMENDATIONS

The role of privacy and technology is at the center of many policy debates in Washington, with security breaches revealing millions of personal records, new surveillance programs being adopted by law enforcement, and calls for data to be retained longer by Internet Service Providers. The most common refrain from privacy advocates is for Congress to enact a comprehensive privacy framework instead of addressing privacy issues on an ad hoc basis as it typically does. To help guide policymakers, USACM released a privacy framework focusing on seven basic areas: minimization, consent, openness, access, accuracy, security, and accountability. For the complete statement, please see <<http://www.acm.org/usacm/Issues/Privacy.htm>>. The release of this statement led to several meetings with policymakers, and will be a part of future discussions as the intersection of technology and privacy continues to be a concern.

*SPAFFORD TESTIFIES BEFORE HOUSE VETERANS' AFFAIRS COMMITTEE;
MEETS WITH HILL STAFF*

Testifying before the House Veterans' Affairs Committee about the recent data breach at the Veterans Affairs (VA) Department, USACM Chair Eugene Spafford argued that this breach was a policy problem rather than a technology one. (His full testimony can be found at <www.acm.org/usacm/PDF/VA.pdf>.) Noting that government, industry and academia all have systemic problems with how accountability is built into information security policies, two problems commonly emerge: No centralized point of authority to

ensure that rules, procedures and good practices are instituted and observed; and employees or contractors make arbitrary decisions to violate security policies so as to make their jobs easier.

Dr. Spafford also met with staff from the offices of Senator Clinton (D-NY) and Representative Lofgren (D-CA), as well as staff from the Senate Judiciary Committee. While the conversation included many issues, they focused on concerns related to USACM's recently released Privacy Policy.

GLOBALIZATION REPORT BRIEFED AT SNOWBIRD; AD-HOC USACM MEETING

The ACM offshoring report was the focus of one panel during the CRA biennial Snowbird Conference in Utah. The conference brings together leaders of the computing community. Cameron Wilson, ACM Public Policy Director, and Eugene Spafford, USACM Chair, were both at the conference and participated in several discussions about computing policy. For more information about the Snowbird Conference (including slides from the panelists) see <<http://www.cra.org/Activities/snowbird/2006/index.html>>.

After formal meeting events, a number of USACM members present at the conference assembled to discuss USACM operations and accomplishments with incoming ACM President Stu Feldman. Among those attending the meeting were Cameron Wilson, Eugene Spafford, Dave Patterson, John White, Stu Feldman, Sy Goodman, Annie Antón, Bill Aspray and Peter Harsha.