



CIS: Celebrate, Inform, Support

<http://women.acm.org>

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ACM-W
ACM's Committee on Women in Computing

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Welcome

By Elaine Weyuker, co-Chair

Welcome to the inaugural issue of the ACM-W newsletter. Our goal is to highlight opportunities for women in computing of all ages and career stages. Each issue will describe some of the exciting projects ACM-W and other organizations offer, provide interviews of some of the leading women in the field, hear stories from women computing professionals throughout the world about important issues they face and projects they are initiating, and celebrate the accomplishments of some of the remarkable women in our field.



Spotlight on...

Frances E Allen

by Bettina Bair

In February 2007, ACM announced that Frances E. Allen would be the first woman recipient of the A.M. Turing Award for contributions that fundamentally improved the performance of computer programs in solving problems, and accelerated the use of high performance computing. The Turing Award was first presented in 1966. It is widely considered the "Nobel Prize in Computing."



Allen was interviewed by ACMW:CIS Editor, Bettina Bair, via email.

BB: There's a entry about you on Wikipedia (en.wikipedia.org/wiki/Frances_E._Allen). How do you feel about this entry? Is it accurate? Complete?

FA: It has an amazing amount of information, nearly all of it accurate and more comprehensive than I expected.

BB: How do you feel about the use of technology to support wikis and online communities, like Myspace and Facebook?



FA: Our field has helped create the technology that is changing the world - the way we learn, create, and communicate. It is an incredibly exciting period! I believe we are at the beginning of a period in which these technologies will be used to solve the pressing problems of the world.

BB: After you received your Turing Award, you said that you hoped that you could bring attention to the issue of a shortage of women in computing. What changes have you seen in your career, and especially in the past few years, that have given you hope?

FA: When I started working as a programmer in 1957 quite a few of my colleagues were women. Computer Science didn't exist as a field so credentials for the job were pretty much non-existent. By the 1970s, as Computer Science emerged as a discipline in the Engineering schools and, to a lesser extent, in the Mathematics departments, I noticed that many more men were joining the field. As the discipline expanded the opportunities for women seemed to decrease. However my own area, programming languages and compilers, seemed to be the exception for awhile. Those topics had emerged early and attracted quite a few women, e.g., Grace Hopper and Jean Sammet, which may explain the exception. I'd really like to see a definitive study on this.

In the past few years the decline in the percentage of women entering the CS field in the US is nothing short of a national disaster. Why? Lots of theories, no compelling answers. Where to look? Women are entering fields like cell biology, earth sciences, and medicine at a rate that will soon eliminate gender gaps in those areas. CS plays a huge role in advances in those fields. So what's going on? I think Pogo got it right: "I have seen the enemy and he are us". CS has to change.

BB: What advice would you give to computer scientists who wanted to make a positive change in the world?

FA: Provide "computers" that have natural user interfaces, universal access, bullet-proof reliability, and cost next to nothing. I am a big fan of the "\$100 computer" project but there is a lot more to do.

BB: What technological advances do you think hold the most promise for improving our communities, locally and globally?

FA: This is a tough one. My little village (Croton-on-Hudson, NY) has lots of boards and committees which cover the waterfront. I am on the planning board and several other committees, mostly related to environmental issues. Some day high performance computing together with computational models for all kinds of environmental systems such as storms, migrations, and vegetation will provide much more accurate, integrated information for communities to use in making decisions affecting the health and welfare of their people and our planet.

BB: Tell us a little bit about how and why you got into a computing career.

FA: When I finished high school I decided to become a high school math teacher, did that and loved it. After two years I decided to get a masters degree in mathematics at the University of Michigan in order to be fully certified to teach. While at Michigan I took a computer course, was recruited by IBM and joined the company to pay off school debts. Though I planned to return to teaching, one interesting job after another at IBM added up to long, wonderful "career" in computing.

BB: What words of advice would you like to share with young women who are considering a career in computing today?

FA: Yesterday I met with a young woman who joined IBM Research recently. Here's some advice I gave her: Focus on your work, not your career - that will happen later; build professional networks; get multiple mentors and be a mentor; nearly all projects involve teams and there is evidence that diverse teams produce the best results, also they are the most interesting; have fun.

BB: During your Grace Hopper talk, you mentioned that you enjoy hiking. Been on any good ones lately?

FA: My last really good one was a week-long trek in the mountains in Bhutan a couple years ago to celebrate a 70th birthday (not mine) in a tent at 14,000'!

BB: It's been great to talk to you. Thanks for your time.

FA: You're welcome. Your questions were really good.

Here's some advice:

... Focus on your work, not your career - that will happen later; build professional networks; get multiple mentors and be a mentor; ... have fun.



Communities

Regional Celebration

First Colorado Celebration Of Women In Computing

Three Colorado universities organized the first Colorado Celebration of Women in Computing, a regional conference designed to encourage the research and career interests of local women in computing.

The event, planned by the University of Colorado at Boulder, Colorado School of Mines and Colorado State University, was held April 4 to 5 at the Hotel Boulderado in downtown Boulder. Google, Sun Microsystems, and Microsoft Research are among nine industry sponsors; the conference also has attracted sponsorships from several non-profit organizations, including the National Center for Women and Information Technology and the Anita Borg Institute for Women and Technology.

Modeled after the highly successful international Grace Hopper Celebration, the event will feature keynote talks by iRobot Corp. co-founder Helen Greiner and Arizona State University Professor Violet Syrotiuk. Undergraduate and graduate students also have been invited to present papers or posters based on their research. All attendees can give "lightning talks," which are brief, five-minute presentations on any subject relevant to the conference and can join in informal discussion groups on specific topics of interest. A career fair also will be part of the program.

"The conference offers an opportunity for students to present their research and to network with leaders from academia, government and industry," said CU computer science Professor Liz Jessup, who is co-chairing the conference with Professor Tracy Camp of CSM. "In this way, it will provide a unique opportunity for technical women from Colorado and neighboring states to come together to share experiences and strategies for success."

The Grace Hopper Celebration of Women in Computing was co-founded in 1994 and is the world's largest gathering of technical women in computing. While more than 4,300 women have attended a GHC conference since they began, a regional conference reduces the travel costs to attend and builds a regional alliance that continues long after the conference comes to a close, organizers say.

More than 150 women attended the Colorado event. For more information, visit <http://www.cs.colorado.edu/conference/ccwic>



ACMW Student Chapter at the Ohio State University

by Stacey Laugel, President



We've had another great year with ACM-W here at The Ohio State University. In the fall we were lucky to get sponsored by Nationwide and Cisco Systems. We also welcomed a new advisor, Hui Fang, and a new social chair, Jamie Colley. We kicked off the quarter with the annual Student Involvement Fair, and for our social event we went to a haunted house in downtown Columbus. Luckily everyone made it out alive. Winter quarter we hosted speakers from Nationwide and also got together for laser tag and arcade games. We had big plans to host a game tournament spring quarter to bring in new members and work with our ACM chapter, but due to some financial issues we're pushing it back to fall quarter of next year. We are currently planning to get together with ACM this quarter and bond over a mutual love of the movie Office Space and possibly a student vs. faculty jeopardy game.

I've been involved with ACM-W as the webmistress for two years, and I'm very excited to take over as president. Linda Wang has done great job keeping our organization running this year. She's even planning for each officer to write up notes and tips for next year, so we're sure to have a good start. As far as my plans, I'm hoping to get more members involved in our events in the coming year. I think starting off with big game tournament will really help to draw more people to our organization, and possibly bring in a new officer or two. I would also like to keep working with ACM, and continue bringing in speakers to talk about employment opportunities. More info: <http://acmw.org.ohio-state.edu/>

Ambassador Blog

A Virtual Science Learning Centre in India

By Dr Suriya Mayandi Thevar



This month's report comes from India where Dr. Suriya is part of a team from Annamalai University who are building a Virtual Science Learning Centre (VSLC) for female high school students. The aim of this project is to establish a twinning programme between the university and rural schools in a tsunami affected region to empower female students who cannot afford to continue their school education. The objective is to build a university based online-support system through special coaching for female higher secondary students at Cuddalore District in Tamilnadu. This district was specifically chosen as from the 113,268 students enrolled in the 97 schools in the region, the gender ratio is approximately 65 males: 35 females.

{T}here are a number of factors ... which still have not allowed many of the girls to take school education seriously

The HSC examination level is considered a stepping-stone for pursuing higher education and employment, and consequently the Government of Tamilnadu is taking measures to provide free education to all female students. However, there are a number of factors such as the availability of schools within neighborhood, the quality of teachers, the level of motivation and coaching, family support and prevailing social norms which still have not allowed

The project aims at building a university centered-village as well as encouraging girls to take up Science, Mathematics and technical subjects. A team of women volunteers at Annamalai University, representing students and research scholars from the departments of Mathematics, Physics, Chemistry, Science & Technology and English will develop web-based tutorial materials for in the regional language and also in multi-media form.

The project will be delivered in three phases:

Phase-1 (Pilot Phase): To develop the content, build the partnerships, arrange the availability of the existing delivery channels in one selected village, and perform a proof-of-concept study for the implementation of the computer network link.

Phase-2 (Trial Phase): During this phase, the content and the computer-assisted learning will be introduced into three selected villages.

Phase-3 (Roll-out Phase): This stage will master the connecting of individual villages to the learning network. It is proposed to create a Virtual Learning Center in each block in the selected district. The web based learning setting supports question and answer, online discussion, bulleting boards, web courseware download and e-mail communication, thus supporting real time and non-real time interaction via the Internet. Face to face tutoring is made available on the weekends at all local learning community centers in the respective villages.



This project will also showcase how the technology can be used as a strong catalyst for improving the academic interaction freely, openly, in many different ways between student communities in the universities and in the rural regions leading to creativity and innovation in the field of STEM

Exposure to the CS research world can help encourage a student to continue Therefore we do not require that the award recipient present a paper at the conference.

Projects Spotlight

Student Scholarships for Attendance at Research Conferences

The ACM-W Scholarships for Attendance at Research Conferences were launched in 2007 to provide support for women students in CS and related programs who wish to attend research conferences. Women involved in undergraduate or graduate study are eligible for the \$500 awards. We believe that exposure to the CS research world can help encourage a student to continue on the next level of study or to enter an industry or academic position. Therefore we do not require that the award recipient present a paper at the conference.

To date we have awarded 14 scholarships, 7 to undergraduates, 3 to Master's students, and 4 to Ph.D. candidates (out of 83 applicants). They have attended conferences such as SigGRAPH 2007, 10th Euromicro Conference on Digital System Design Architectures, Opportunities for Undergraduate Research in CS, IEEE Int. Workshop on Multimedia Signal Processing, Virtual Reality Software and Technologies, and the International Symposium on Software Reliability. More information about the scholarships, as well as comments from the award recipients, is available at <http://women.acm.org/scholarships.html>

Awards & Recognitions

Shilling Wall Tribute

Congratulations Annemieke Craig!

Annemieke Craig was acknowledged for her endless support and enthusiasm in promoting Women in Computing to students of all ages with a Shilling Wall Tribute "For her tireless work to promote ICT courses and careers to women in Victoria. Annemieke was the first Australia ACM-W Ambassador and integral to the growth of the Victorian Women in Computing group (VicWIC).

Annemieke receiving her Shilling Wall certificate from the current ACM-W Australian Ambassador Catherine Lang Last at the Victorian ICT for Women dinner. The Shilling Wall will be opened on May 15th. More details at:

www.qvwc.org.au/news_and_events/events/shilling_wall_launch.





Athena Lecturer

Congratulations Shafi Goldwasser!

The Association for Computing Machinery's Committee on Women in Computing (ACM-W) has named Shafi Goldwasser of the Massachusetts Institute of Technology and the Weizmann Institute of Science as the 2008-2009 Athena Lecturer for her outstanding research contributions to cryptography, complexity theory, and number theory. Her research includes the development of zero-knowledge proofs, which enable proving the possession of a particular property or piece of information without revealing the information, fast primality tests, and fundamental results on the hardness of approximating certain NP-complete problems.

Goldwasser is the RSA Professor of Electrical Engineering and Computer Science at MIT and a professor of computer science and applied mathematics at Weizmann Institute of Science in Israel.

The Athena Lecturer is invited to present a lecture at an ACM event. Goldwasser will address the ACM Symposium on Theory of Computing, sponsored by the ACM Special Interest Group on Algorithms and Computation Theory (SIGACT), in Washington, DC in May 2009. The award, which celebrates women researchers who have made fundamental contributions to computer science, includes a \$10,000 honorarium, which is provided by



ABI Woman of Vision

Congratulations Susan Landau!



Susan Landau is the Women of Vision Award winner in the **Social Impact** category. Landau's focus is on the interplay between security and public policy. A Sun Microsystems Distinguished Engineer, Landau is a leading scholar in all three areas and publishes widely. Her book, co-authored with Whitfield Diffie, *Privacy on the Line: the Politics of Wiretapping and Encryption*, attracted immediate international attention and played a significant role in the 2000 loosening of U.S. cryptographic export-control regulations, stimulating the global technology economy and offering protection to consumers in all non-embargoed countries. Her unusual blend of technical expertise, policy insight, industry connections and drive, along with her dedication to the advancement of Women in Computing, make Landau a true Woman of Vision.

The Women of Vision (WOV) Awards honor women making significant contributions to technology in three categories: Innovation, Leadership, and Social Impact. The three Women of Vision Awards winners were selected from a field of over 50 nominees. Candidates for the award are considered based on their records of (1) consistent, significant contributions to technology invention and application; (2) effecting positive changes in the ways in which technology impacts society; and (3) demonstrated leadership in the technology industry that extends beyond their place of work.

[Susan] has profound impact ... developing numerous programs to benefit women in computer science.

"The winners of this year's Women of Vision Awards have earned this recognition because they have worked toward achieving a unique vision of using technology to improve our world," said ABI CEO, Dr. Telle Whitney. "These women are using the power of technology in innovative ways that make them leaders in their respective fields as well as strong role models for women of all generations. They are truly *Women of Vision*, and we are proud to honor them."

Upcoming Dates & Deadlines

June 2008

[1] Grace Hopper 2008 Conference Registration Online

[1] Student Scholarship Application due for Attendance at Research Conferences in July 1 - Aug. 31, 2008

[15] Grace Hopper 2008 Conference Scholarship Application Submission deadline

August 2008

[1] Student Scholarship Application due for Attendance at Research Conferences in Sept. 1 - Oct. 31, 2008



October 2008

[1-4] Grace Hopper 2008 Conference, Keystone Resort, Colorado



Celebrate, Inform & Support

By Bettina Bair, editor

So, this is (almost) the end of the maiden issue of ACMW's CIS. Like this one each issue will highlight some of the thrilling projects, exciting accomplishments and remarkable women that are a part of our community. (You are a part of this community!)

We hope that you will find inspiration here. But we also hope that you will feel inspired to contribute here.

Please send me your thoughts, your comments and most of all, your stories. mailto: bbair@cse.osu.edu

Fun

ACM-W Co-Chairs:

Elaine Weyuker
Gloria Townsend

Past Chair:

Ursula Martin

Working Committee:

Sarita Adve
Jehan Ara
Bettina Bair
Valerie Barr
Tracy Camp
Joanne McGrath
Cohon
Mary Anne Egan
Paula Gabbert
Cindy Hood
Kathy Kleiman
Barbara Boucher Owens
Chris Stephenson
Katie Siek
Ellen Walker
Amy Wu

Ambassadors:

Julita Vassileva
Catherine Lang
Jehan Ara
M. Suriya
Reyyan Ayfer
Vashti Galpin
Annika Hinze
Jan Peters
Mary Anne Egan

Past Ambassadors:

Annemieke Craig
Anne Condon
Ursula Martin
Veronika Oechtering



Time to shop for
graduation gifts?

The ACMW e-store
has many items that
now feature the fresh,
newly redesigned
logo.

cafepress.com/acmw

**Q: What does a baby
computer call its
father?**

A: Data

**Q: What happened
when the computer
fell on the floor?**

A: It slipped a disk

**Q: What is a
computer virus?**

A: A terminal illness

LIKE MANY GEEKS, I GOT
A LOT MORE INTERESTED
IN EXERCISE ONCE I MADE THE
CONNECTION TO LEVELING UP.

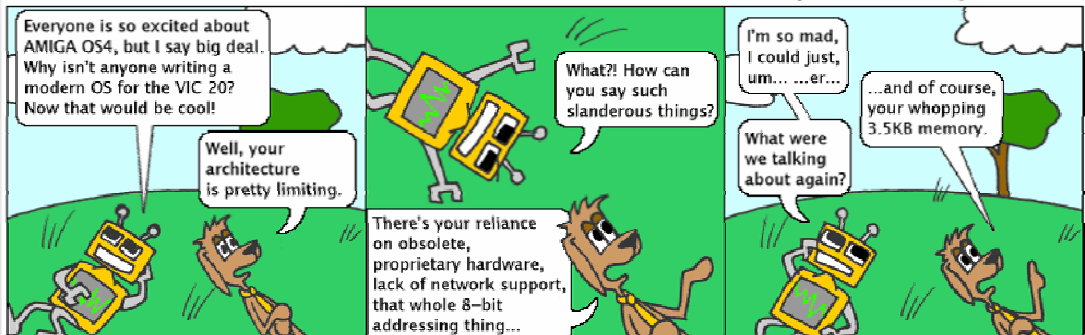


ONE MORE POINT TO STR, THEN
I'LL RUN TO WORK ON CON.

xkcd

Hackles

By Drake Emko & Jen Brodzik



<http://hackles.org>

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