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BLOGS



Why “Celebrate Women in Computing”?

By Nur Al-huda Hamdan

The ACM-W society is one of the biggest advocates of women in computing. They dedicate several events and awards to celebrate prominent women in computer science and related fields. In September of this year, the ACM-W Europe chapter held their second womENcourage (<http://women-courage.acm.org/>) event at Uppsala University in Sweden. womENcourage creates an environment for women with similar scientific backgrounds to interact, network, and explore career opportunities. At this event, 200 people attended from 28 countries including the Middle East, India, China and the U.S.A.

But why is there even a need for events dedicated to women in computer science?

Gender stereotypes threaten women in male-dominated work environments with discrimination from three sources: men, other women, and self-discrimination. Commonly, the ratio of women to men decreases rapidly in more advanced academic or professional positions. In her keynote, Prof. Åsa Cajander mentioned as a consequence of this phenomenon women are perceived less competent within a group and are assigned to the group’s social tasks.

This leaves a woman feeling isolated within her team, and could eventually affect her performance.

A higher risk women face comes from within. Prof. Cajander called this risk the “imposter syndrome,” where a woman feels she does not deserve her success and assigns it to chance or to other people. Some women also believe similar success could have been achieved by a male counterpart with less time and effort. Positive discrimination, such as scholarships offered for women or women quota systems, also threaten women. In many situations, this type of discrimination leads women to be more criticized for their actions compared to males, especially by other women.

Events such as womENcourage help individuals become aware of these risks and provide opportunities to mediate them. At the event’s core, it provides the opportunity to network. Women are able to get acquainted with each other in a friendly social-scientific atmosphere and share their experiences. Discussion groups further aim to build mutual understanding and empathy, and to evaluate different techniques to neutralize gender stereotypes. Aside from the social aspects of the conference, many scientific sessions are offered. Technical talks are presented by leading researchers and industry representatives. Due to the nature and purpose of the conference, however, the scientific content covers a variety of topics without going deep into them. One advantage of

100M+

The number of Internet connected wireless light bulbs and lamps worldwide by 2020.

this model is participants can choose to attend any session and learn about new topics with little-to-no prerequisites.

Several hands-on workshops also take place and provide basic training for new technical skills. The value of the workshops stems from the variety, recency, and type of exposure they offer participants. A career fair is also held as part of the conference. The fair provides women, and female students in particular, with a rare opportunity to interact with industry representatives without the potentially overpowering male presence typical of other conferences. During this event, ideas are discussed, business cards are exchanged, and new collaborations are planned.

In addition, a Codess hackathon was co-located within the conference this year and took place one day before the main event. Five teams competed to design and develop hardware prototypes using new Intel technology for a humanitarian purpose. Codess by Microsoft is another type of initiative that encourages gender diversity in computer engineering and development. Such technical challenges help women gain confidence and accept positive recognition.

One of the main conference topics was teaching computer science. In the near future, computer skills will not be restricted to a number of university programs or job titles, but will become essential tools in the hands of the skilled. ACM-W could take advantage of events such as womENCourage to expose women from other fields to computer science and provide them with the basic skills to empower them in their work. Currently, womENCourage reaches out to women who are already involved in computer science disciplines. Inviting female students in middle school and high school to participate can bear many

advantages. On one hand, this would provide women a chance to act as mentors for these girls. Mentorship can help people reflect and understand the essential role they are playing in evolving computer science into a more gender-diverse field. Another advantage would be encouraging young women to join computing by presenting them with successful female figures, and diluting the computer scientist's stereotypes. To apprehend the influence of these stereotypes, you should read Dr. Cheryan's research "Ambient Belonging: How Stereotypical Cues Impact Gender Participation in Computer Science," published in the *Journal of Personality and Social Psychology*.¹

Events celebrating women in computing can push even further by encouraging more male participation. Creating a social-scientific environment with "an almost" equal gender participation (equality doesn't necessarily mean diversity) can allow both genders to experience true diversity. Men would experience how it feels not to be the dominant gender, which could create empathy toward female colleagues. Women would get a chance to speak their minds, sensing the support of other women in the group. The resulting discussions could eventually lead both genders to understand how diversity liberates women to take active roles in their teams, and how that in turn encourages new perspectives and contributes to the success of the final product.

1 [http://depts.washington.edu/sibl/Publications/Cheryan, Plaut, Handron, Hudson, 2013.pdf](http://depts.washington.edu/sibl/Publications/Cheryan,Plaut,Handron,Hudson,2013.pdf)

Biography

Nur Al-huda Hamdan is a Ph.D. candidate and research assistant at RWTH Aachen University, Germany. She does HCI research on wearables, interactive textile, and imperfect design.



L-to-R: Keynote speakers from academia and industry shared their work experiences and interacted with the audience; conference participants experienced cutting-edge technology during the career fair; and international teams from various computing disciplines collaborated in the Codess Microsoft and Intel hackathon event.