Panel: How to Enhance Diversity in Software Engineering Programs

Grace A. Lewis

glewis@sei.cmu.edu

Software Engineering Institute
Carnegie Mellon University
Pittsburgh, PA 15213

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From Difference to Diversity

Develop actions and programs that focus less on gender differences and more on creating a culture and environment that embraces diversity

"We are interested in shifting the conversation away from gender differences, which often leads to recommendations to accommodate those differences"

Frieze, Carol, and Jeria Quesenberry. Kicking Butt in Computer Science: Women in Computing at Carnegie Mellon University. Dog Ear Publishing, 2015.

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My CMU Experience in 1999

Bachelor of Science in Software Systems Engineering from Icesi University in Cali, Colombia

- ~50/50 male/female

Shocked when I was 1 of 2 women in a cohort of 30 Master of Software Engineering students

My thoughts at the time

- Colombia's economy encourages high-paying degrees in STEM fields
- Fixed high school curriculums include math up to calculus for everybody
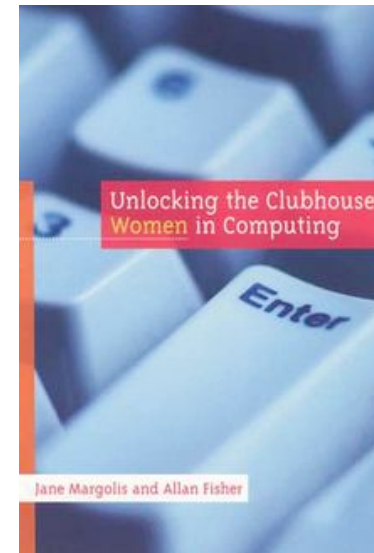
Gender divide based on "computing with a purpose" (women) and "dreaming in code" (men)

Margolis, Jane, and Allan Fisher. Unlocking the clubhouse: Women in computing. MIT press, 2003.

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Women@SCS at Carnegie Mellon University

Started in 1999 as a response to a 37% female freshmen CS class

- Broadened admissions policy, emphasizing diverse interests along with high achievements in math and science and de-emphasizing prior programming experience

It is not a support group — events combine professional and social activities that help foster community skills and growth

- SCS Day, Big Sisters/Little Sisters, pre-registration event, undergraduate research information sessions, invited speaker series, Outreach Roadshow, TechNights, OurCS

http://women.cs.cmu.edu

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Cultural Change

Areas of balance that have led to cultural change

1. Improved gender balance

2. Broader range of student personalities

3. Enhanced opportunities for women through groups such as Women@SCS

Emergence of the Women-CS/SE fit

- Welcome situation in which women fit into the CS/SE culture, contribute to it, and are successful in the field alongside their male peers

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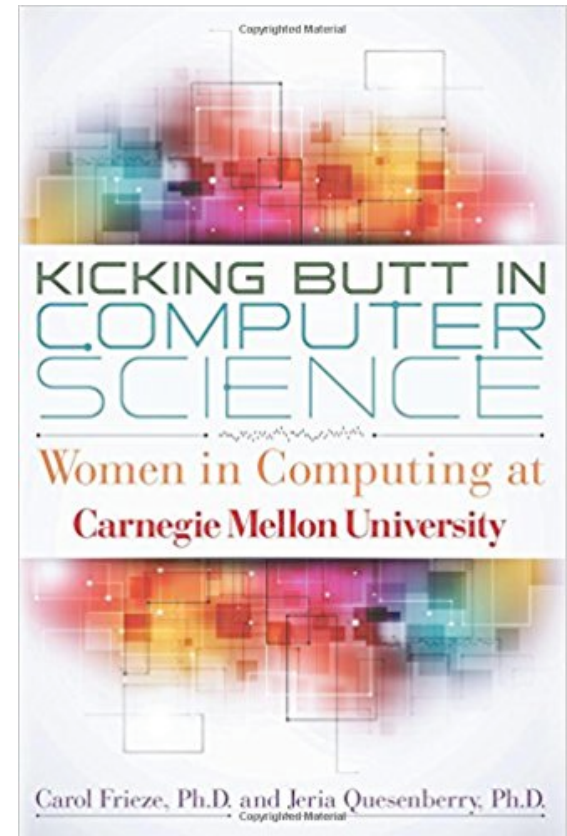
Still More To Do Before and After College

Before	After
• Parents • K-14 Students • Teachers	• Industry • Alumni

- Software Engineering and Computer Science are more than just programming
- Breaking stereotypes
- Exciting careers

- Diversity as a core value of the company
- Alumni as outreach partners

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