Where have all the women gone?

Ada Lovelace,
The 1st Programmer

Grace Hopper,
Creator of Cobol

Katie A. Moor
PhD Student
Indiana University
Problem?

Recruitment

Retention

What can we do?
Recruitment

Problem?

Retention

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Female percentage of CS Bachelor's degrees: 1971-1997

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- Unix
- Apple, PCs, Printers
- C++, Graphics, CDROMS
- Dot Com Boom, Java
Dispelling some rumors...

Women can do math

Problem?

Number of Bachelor Degrees in Mathematics

- Men (red line)
- Women (green line)

Association of Women in Science. Statistics:
http://awis.org/statistics/r_statisticsmain.html
Why do we need women in computing?

- Program design is improved when designers better understand users.
- Having designers from a diversity of gender and ethnic backgrounds will improve designs.


Give women the opportunity to succeed in computing

- Over half of male students who have a computer at home have the computer in their room
- Only 17% of women received a computer early in their education (40% of male students reported having computers early on)

Unlocking the Clubhouse: Women in Computing.
Jane Margolis and Allan Fisher
Where do we start?

• At all ages, boys spend more times playing video games
  • Age 8, twice as much time gaming than girls
  • Over age 14, over 50% more gaming than girls

• Gaming = confidence in computing

*Unlocking the Clubhouse: Women in Computing.*
Jane Margolis and Allan Fisher
High School is Important

- Boys typically make decisions about computing early on from gaming
- Girls “try things out” in high school

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How do we get women interested in computing?
Dispel the geek stereotype

- CMU Roadshow
- Invite guest speakers
- Be a positive role model
Educate yourself, teachers, counselors, and parents

- Recommend home computers be placed in centralized locations
- If your classes are not 50-50, notify administrators
- Talk to parents and counselors to help encourage women
- Create a technology club
Create opportunities for interdisciplinary work

- Over 40% of women wanted to do interdisciplinary work (art, medicine, education, etc.).
- Women design applications for communication and collaboration. Men design applications as an “extension of power.”

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Honey et al. (1991) Bank Street College Center for Children and Technology.
Provide a safe, positive lab environment

- Computer labs allow students to get a break
- Limit harassment and lewd conduct
- Lab set-up influences how students work
Create a community for all students

- Why aren’t there Men in Education or Men in Psychology groups?
- Create a support structure for female students
- Keep in mind how people think
Encourage women!

- Be aware of your voice, gestures, and body language
- Do not “talk down to girls”
- Ask high-order, open ended questions to all students
- Put girls in touch with female scientists
- Encourage questioning and exploration for all students

North Central Regional Education Laboratory
Get Involved!

What can we do?

• ACM-W High School Chapters
• Systers
• Computer Girl
• Regional Grace Hopper Conference