CSE 303:
Concepts and Tools for Software Development

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Lecture s2— Diversity

Diversity

Hot topic (see yesterday's NYT)

Negative perceptions of science/technology

Girls do as well as boys in science and math up through Jr. High school, then interest and self-confidence drops off dramatically

Lots of stories about slights faced by women (discrimination, glass ceiling, macho culture, etc.)

Although women are just as capable, and enter technical fields in reasonable numbers, they leave "hard science" mid-career at much higher rates than men

Historical falloff in computing: the field had a significantly larger percentage of women and was perceived as more welcoming in its early days

Some CRA Statistics

Undergrad interest is down overall (from 14,000 new majors per year in 98-99 to 8,000 in 05-09)

Percent of CSE degrees awarded to women is at all-time lows (and was never very high to begin with)

- 99-01: Bachelors 19%, Master's 26%, Doctorates 15-18%

- 05: Bachelors 14%, Master's 25%, Doctorates 15%

This is low even in comparison to NSF statistics for science and technology overall

- 04: Bachelors 50%, Master's 44%, Doctorates 38%

Ethnicity is also skewed. Ph.D. statistics:

1. 05: Nonresident 53%, African-American 1%, Native American 0%, Asian/Pacific Island 11%, Hispanic 2%, White non-Hispanic 31%, Other 2%

Causes?

Being smart is not cool?

Is programming "too hard"?

Lack of self-confidence? (women and men react very differently to setbacks and have different perceptions of their own abilities)

No role models? (a gender, ethnic, and socio-economic issue)

Cultural issues? (prestige of science/technology in American society, no CSI-CSE?)

Bad stereotypes? (geeks in front of monitors)

Desire for a more balanced life?

Does it Matter?

Yes — need a diverse, educated society and workforce to prosper in a diverse world

No — different people are attracted to different things; let things seek their own level

Some Questions

Does diversity matter?

- If so, to whom? Industry? Society? UW CSE?

- If so, why?

If there's a problem, where is it?

- Jr. High School? UW CSE? Science & Engineering in general? Society?

Should we worry about it?

Could we fix it?

- Where?

- What?

- How?