

Discussion about inclusiveness in CSci

UMM CSci

October 5, 2015

Why talk about inclusiveness?

COMPUTER SCIENCE: **Where are the girls?**

There will be 1.4 million computing-related jobs open by 2020 and at current graduation rates for computer science, two thirds of them will go unfilled. Girls represent a valuable, but mostly untapped, talent pool.

GIRLS COMPRISE:



of all Advanced Placement (AP) test-takers are girls



of all AP Calculus test-takers are girls



of all AP Computer Science test-takers are girls

WOMEN EARN:



of all undergraduate degrees



of all undergraduate math and statistics degrees



of all undergraduate physical sciences degrees



of all undergraduate computer and information science degrees

SOURCE: National Center for Women and Information Technology, U.S. Department of Labor

DESERET NEWS GRAPHIC

Two videos

What is the issue?

The Underrepresentation of Women in STEM, by Chelsea Ziadle

A story of a woman engineer:

Inspiring the next generation of female engineers: Debbie Sterling at TEDxPSU

Similar problems are faced by ethnic minorities or anyone else who doesn't look like a stereotypical person working in a tech field.

#IlookLikeAnEngineer twitter campaign

Isis Wenger, a platform engineer at OneLogin, was photographed for a recruiting ad:



Comments on social media: people thought she was a photo model, not an engineer, and the quote was made up.

#IlookLikeAnEngineer twitter campaign

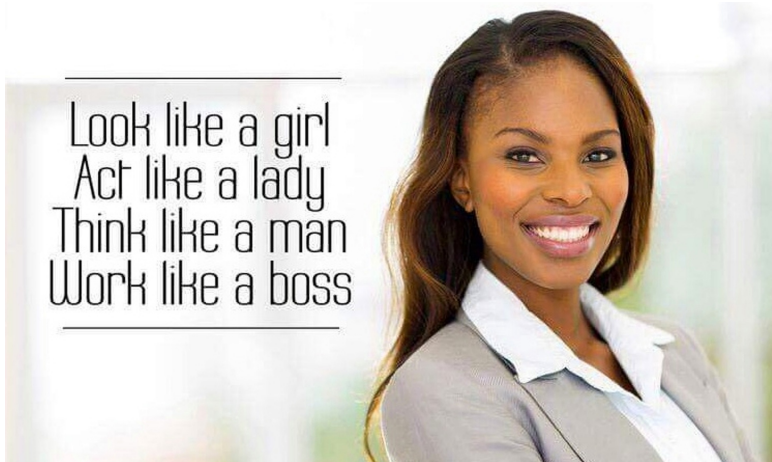
Isis Wenger's blog post lists her experiences, including male colleagues throwing dollar bills at her in the office, or a colleague messaging her seeking to be “friends with benefits”. She says it doesn't indicate that they are bad people, just that people don't know how their “playful” behavior affects those it's directed at.

#IlookLikeAnEngineer twitter campaign in response: hundreds of engineers who may not look stereotypical posting their pictures.

<https://twitter.com/hashtag/ILookLikeanengineer>

Well-meaning attempts to get underrepresented groups into tech.....

South African pen manufacturing company Bic posted this ad on its Facebook page to celebrate national women's day:



<http://www.theguardian.com/society/2015/aug/11/look-like-a-girl-think-like-a-man-bic-outrage-south-africa->

Study shows gender bias in math grading

- *A study by Victor Lavy of the University of Warwick in England and Edith Sand of Tel Aviv University (2015).*
- Three groups of Israeli students, grade 6 to end of high school.
- 2 math exams: one graded by outsiders not given the students' names, the other by teachers who knew their names.
- In the exam graded anonymously, girls outperformed boys.
- In the exam graded by teachers who knew their names, boys outperformed girls.
- There was no similar effect in other areas (e.g. language).
- Studies show that belief in one's abilities greatly increases performance.
- Since girls aren't expected, or encouraged, to do well in math, they perform worse or drop out.
- The teachers in the study were women.

Starting points for group discussion

- Why is diversity so important?
 - What problems arise due to lack of diversity in STEM fields?
 - How can our experiences (or lack of experience) with diversity influence us?
- Have you encountered messages designed for women and minorities that imply that they aren't good at math or science?
- In what instances have media tried to promote diversity in an ineffective way?
- How do you feel diversity has affected your academic experience?
- How can we promote diversity and inclusiveness in the Computer Science program here at Morris?
 - What are we doing well?
 - What can be improved?

- The Underrepresentation of Women in STEM, by Chelsea Ziadle:
<https://www.youtube.com/watch?v=fQyCBTDproE>
- Inspiring the next generation of female engineers: Debbie Sterling at TEDxPSU
<https://www.youtube.com/watch?v=FEeTLopLkEo>
- #IlookLikeAnEngineer twitter campaign: Isis Wenger blog post:
<https://medium.com/the-coffeelicious/you-may-have-seen-my-face-on-bart-8b9561003e0f>, the BBC article about it: <http://www.bbc.com/news/blogs-trending-33783007>
- Bic ad story: <http://www.theguardian.com/society/2015/aug/11/look-like-a-girl-think-like-a-man-bic-outrage-south-africa-womens-day>
- The math grading bias study:
http://www.slate.com/blogs/xx_factor/2015/02/10/teacher_bias_in_math_new_study_finds_teachers_grade_boys_more_
- Barbie book about programming story (was brought up in one of the discussion groups):
<http://www.dailydot.com/geek/barbie-engineer-book-girls-game-developers/>