

Computer Science: a Gender Issue ?

How to increase the number of female students
and faculty members ?

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SARIT 06, Univ. of Basel, March 2, 2006

The Facts

- Swiss statistics shows a clear minority of female students in CS
(e.g. Fribourg: 0-2%, to 23-17% in 2000-02, then 0%)
- A clear minority of women in faculty positions
An international phenomenon

But, no available explanation!

Some Hypotheses

- Women are often **discouraged**?
 - Change more often their main (CS) branch after 1 or 2 years (while men mainly abandon for a job?)
 - Tend to decrease their interest
decrease in number of registrations (an international trend)
- Signs of **social pressure**?
 - Women students tend to form groups, independently from their personality
 - Attractiveness of women supervision for Bachelor and Master projects
- Women are **conscious**
to have an inadequate and incomplete vision of CS at high-school level

WINS (Women in Science and Technology) <http://www.unifr.ch/wins>

- WINS 2-day practice for high-school 3rd-year female students
high participation motivated by a need of better discovering CS
Very positive feedback
(*"CS is much more interesting than what I believed!"*)
- WINS Forum (dialogue platform with secondary-level teachers):
Very positive results with the Carnegie-Mellon model (Alice 3D)

Important Note

Gender studies from other disciplines show us that:

What is good for women is also good for men!

(but women more act upon their critics and better express it)

A Need to Understand

- What is attractive /not attractive /difficult ?
 - in CS
 - CS studies
 - CS professions
- 1. At high-school level
 - Insufficient and/or inadequate CS?
- 2. At the university level (discouragement...)
 - What is too difficult and/or inappropriate?
Social pressure? Pedagogical contents? Pedagogical approaches?
(cf gender studies in mathematics, physics: all 3!)
- 3. At professional level
 - Difficulties with high responsibilities and power exertion? (definitely yes!)
 - Children ?

My proposal

- Make a **study** at Swiss level to answer these questions and **start now**
 - Create a working group for defining the project and find financial support (about the Federal Office for Equality? About the Directions of Public instructions?...)
 - Get the support “in principle” from SARIT for this project **today**
- Gender Studies International Networking
- Then,
 - create contacts with the Swiss association of secondary teachers in CS
(= one step forward than Forum WINS)
 - adapt CS education programs
(increase and/or adaptation at high-school level, adaptation at Univ. Level,...)
 - take concrete decisions for equality (maybe incl. quotas)