

Why Stereotypes?

They do exist.

Many of us believe we have control over whether or not we stereotype. Research has shown that this isn't always the case. Stereotypes are often:

- Automatic
- Outside of our awareness
- Unintentional
- In conflict with our conscious beliefs

Because biases are not consciously controlled, it is important to develop ways to combat stereotypes.

Why address them?

Stereotypes about academic fields prevent many students from pursuing these fields. Some of the benefits of pursuing a career in computer science include:

- It's rated among the best jobs in the U.S.
- Provides opportunities to improve society by designing products that help people
- High status and lucrative careers
- Potential for flexible hours
- Work is dynamic and challenging

Computer science is an exciting and important field that has the potential to attract many more people. Demonstrating the stereotypes are inaccurate will

“People are missing out on well-respected, influential and flexible careers [in computer science]”

Kalwarski, Mosher, Paskin, and Rosato (2007)



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Debunking Stereotypes

Ways to change the image
of computer science

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Stereotype #1:

Computer scientists are unsociable and prefer to work alone



Stereotypes can be reinforced in traditional computer labs or classrooms that are set up in an uninviting manner. Large computers placed between monitors create a barrier between each student.

Break the stereotype:



Arranging computers along the edges of a room **creates a more open environment** where students can interact with one another. Posters and art can also help create an engaging environment.



Computer scientists employed by companies such as Google and Microsoft frequently work together in non-traditional office environments. These environments help create a fun and productive social atmosphere.

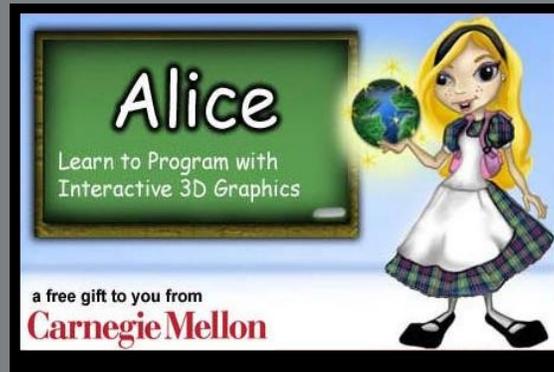
Stereotype #2:

Computer science material is boring and hard to learn



A common misconception about computer science is that it is a dull subject that requires hours of boring work.

Break the stereotype:



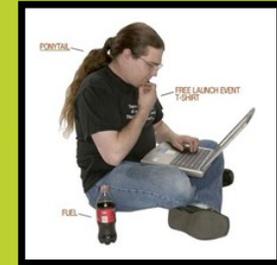
Computer science **can be made exciting** by using materials that showcase its usefulness. Alice is a free program geared towards younger students that can be downloaded online. It provides an innovative 3D environment that **makes programming fun**. This makes it easy to create animations or games that can be shared on the web. Find it at <http://www.alice.org/index.php>

“Computer science is no more about computers than astronomy is about telescopes.”

Edsger Dijkstra, computer scientist

Stereotype #3:

All computer scientists are nerds



Adolescents are at a very important stage in forming their personal identities. Because of this, some students may miss learning opportunities in order to avoid looking “nerdy.”

Break the stereotype:



Providing students with non-stereotypical role models helps to create a more diverse image of computer science. Pictured above are Marissa Mayer (vice president of Google) and David J. Malan (a computer scientist at Harvard). You can provide students with positive role models that don't fit the stereotype.