The 'computer nerd' is a well-known stereotype in our modern society. While this stereotype is inaccurate, it still has a chilling effect on women pursuing a qualification in computer science, according to a new paper by Sapna Cheryan from the University of Washington in the US, and colleagues. However, when this image is downplayed in the print media, women express more interest in further education in computer science. The work is published online in Springer's journal, Sex Roles.

Despite years of effort, it has proven difficult to recruit women into many fields that are perceived to be masculine and male-dominated, including computer science. The image of a lone computer scientist, concerned only with technology, is in stark contrast to a more people-oriented or traditionally feminine image. Understanding what prevents women from entering computer science is key to achieving gender parity in science, technology, engineering and mathematics.

Cheryan and team sought to prove that the shortage of women in computer science and other scientific fields is not only due to a lack of interest in the subject matter on the part of women. In a first study, 293 college students from two US West Coast universities were asked to provide descriptions of computer science majors. The authors wanted to discover what the stereotypical computer scientist looks like in students' minds.

Both women and men spontaneously offered an image of computer scientists as technology-oriented, intensely focused on computers, intelligent and socially unskilled. These characteristics contrast with the female gender role, and are inconsistent with how many women see themselves.

The way a social group is represented in the media also influences how people think about that group and their relation to it. In a second study, the researchers manipulated the students' images of a computer scientist, using fabricated newspaper articles, to examine the influence of these media on women's interest in entering the field. A total of 54 students read articles about computer science majors that described these students as either fitting, or not fitting, the current stereotype. Students were then asked to rate their interest in computer science.

Exposure to a newspaper article claiming that computer science majors no longer fit current preconceived notions increased women's interest in majoring in computer science. These results were in comparison to those of exposure to a newspaper article claiming that computer science majors do indeed reflect the stereotype. Men, however, were unaffected by how computer science majors were represented.

The authors conclude, "Broadening the image of the people in the field using media representations may help to recruit more women into male-dominated fields such as computer science. Moreover, the media may be a powerful transmitter of stereotypes, and prevent many women from entering these fields."


Provided by Springer