There Are Too Few Women in Computer Science and Engineering

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Only 20 percent of computer science and 22 percent of engineering undergraduate degrees in the U.S. go to women. Women are missing out on flexible, lucrative and high-status careers. Society is also missing out on the potential contributions they would make to these fields, such as designing smartphone conversational agents that suggest help not only for heart attack symptoms but also for indicators of domestic violence.

Identifying the factors causing women’s underrepresentation is the first step towards remedies. Why are so few women entering these fields? A common explanation is that women are less interested than men in computer science and engineering. This explanation is technically accurate and supported by women’s and men’s own responses. But, it is incomplete in problematic ways, and worsens the very disparities it seeks to explain.

Ending with an explanation that women currently have lower interest in these fields is shortsighted. A better solution is to understand how the cultures of these fields dissuade many women and young girls from becoming interested in this important work. Focusing the explanation on currently existing interests suggests that girls and women are deficient and need to change. Instead, we think that changing the male-oriented image and cultures of engineering and computer science will draw more young women into these fields. The status quo makes it clear that these fields and societal institutions still have a long way to go.