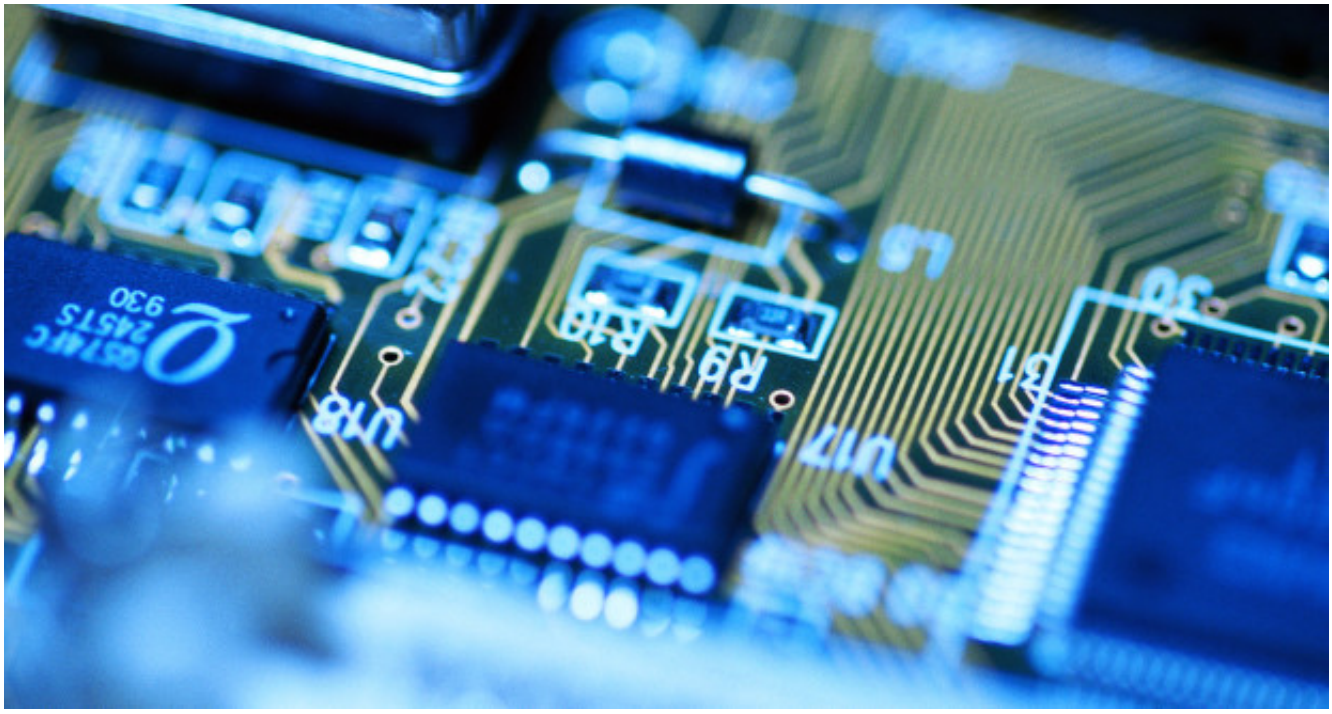
University trying to attract more women to technology fields



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By BECKY GILLETTE

The percentage of women in science, technology, engineering and math (STEM) fields has continued to shrink even as demand for jobs in those fields has grown rapidly. What can be done to encourage more young women to get interested in technology careers?

Dr. Stacy Kastner, assistant professor of English at MSU, co-director of Bulldog Bytes, a residential computing summer camp that includes same gender camps for middle and high school students, encourages educators to consider adopting a techno-feminist pedagogy as one way to address such inequities within STEM fields.

“To me techno-feminist pedagogy has a lot to do with making women and girls’ contributions to tech and computing visible,” Kastner said. “For example, Ada Lovelace wrote the first computer program…but, going back to our camps, when we asked our campers to name all of the people they could who were famous in relation to technology and computing, not one of our campers included a woman in their list. How can girls and women identify with a field when the very important historical contributions of women to that field are seemingly absent from popular memory…and how and why did this come to be?”

For her, part of techno-pedagogy is being a visible tech-advocate on campus–both as a female and as a humanities professor.

“It’s important to open the identity of ‘techie’ to more people—to people who aren’t just male, who aren’t just white, who aren’t just in the STEM departments and fields,” Kastner said. “Techno-feminist pedagogies, at least the ways I adapt the theory in practice, aim to find ways to level the playing field, understanding that in the 21st century, understanding and being able to manipulate the interface is inherently linked to power.”

For Kastner, this means asking questions and experimenting in order to better understand how learning environments can introduce girls and women to tech in ways that don’t alienate them and in ways that help them to recognize that despite stereotypes, despite the messages they get from the media, video games, advertising, and other cultural artifacts, that technology is not, in fact, just for boys and men and is not, in fact, inherently male.

Kastner said she and Dr. Sarah Lee, an assistant clinical professor in the MSU Department of Computer Science and Engineering, who co-directs the camps, both feel strongly that one way to level the playing field is to introduce girls to tech and computing in girls-only environments. The first reason for that is so that girls can really feel free to “geek-out”. Second, it allows girls can establish a supportive female community and see that even if they’re the only girl in their school interested in robots, for example, they aren’t the only girls.

“Every year that we’ve hosted the camps together, we’ve learned how important this is as our female campers have explained that they are the only girl in the classrooms and schools who are tech and computer curious and how the best part of the camp for them was getting to meet, work with, and form relationships with other girls who were like them, getting to meet women working in tech fields,” Kastner said. “For us, it’s about mentorship. This past summer, we also engaged boys in this discussion, as we think that in order to establish an equitable workplace, it’ll take the cooperation of boys and girls in school and men and women in the workplace. Making middle school boys aware of the fact that girls and women are less interested (not less capable) of entering STEM paths, is the first step in inviting them to be a part of the solution, inviting them to create a new STEM learning and workplace environment that looks and sounds much different from the one of their mothers.”

In addition to the camps for boys and girls, MSU also has a Bulldog Bytes camp for educators aimed at helping them be more effective teaching STEM classes.