Fashion, function conflict in creating wearable technology that gives 'superpowers' to users

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The creation and use of wearable technology, such as Apple watches, Google Glass, and Fitbits, have drastically increased in recent years as technological advances have allowed manufacturers to create devices that were once only seen on science fiction shows. Now, researchers from the University of Missouri have found that the wearable technology industry often is hampered by communication breakdowns between technology engineers and fashion designers. Deepika Raj, a doctoral student in the textile and apparel management program at MU,, says these breakdowns can hurt company productivity.

"We found that within manufacturing companies, the engineers were focused more on packing the most technology as possible into each device, while the fashion experts were more concerned with ensuring the devices fit comfortably and looked aesthetically pleasing," Raj said. "It is important for wearable technology companies to find ways to improve collaboration among the different disciplines. Otherwise, products can ultimately suffer if one or more sides are not effectively addressed."

For their study, Raj and Jung Ha-Brookshire, an associate professor at MU, conducted in-depth interviews with 16 major wearable technology product developers in the United States and the Netherlands. They determined that the working definition for wearable technology for these companies is a device which allows a person to do more with less, improves connectivity with the world, fits the body well, and grants

"superpowers" or abilities otherwise beyond human capability.

"It was very important to these wearable technology manufacturers that their devices add extra abilities, or 'superpowers' to their users," Raj said. "To achieve this goal, it is clear that these manufacturers need to find ways to combine all of the relevant areas of expertise cohesively, including engineering, technology, health informatics, and fashion. Often, we found communication gaps occurred when people from two different disciplines were using different jargon when actually discussing the same thing. It is important that these different experts work together in patient, respectful environments in order to operate as efficiently as possible.

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