

Researcher questions society's adoption of technology without critical assessment

October 1 2010, By Dana Yates



"When it comes to adopting new technologies, we need more forethought and less hindsight," says Isabel Pedersen, a Professional Communications professor.

It's a science-fiction idea being brought to life: a brain-controlled headset that enables users to move on-screen images using the power of thought. But what is the real purpose of this technology - video gaming fun or mind surveillance? Furthermore, will it do people more harm than good?

That's the premise of Isabel Pedersen's research at Ryerson. A professor of Professional Communication, Pedersen uses a humanities-based approach to study wearable technologies. Examples of these future high-tech inventions include invisibility cloaking materials and electronic contact lenses that provide augmented vision, similar to that of *The Terminator*.

"Typically, a [technology](#) is assessed after it has been made available," Pedersen says. "Usability studies are done or new policies are created, such as the Ontario law that bans cell phone use while driving. We never consider, however, the hidden implications of technologies prior to their release."

One major concern, she cautions, is a public that accepts new technologies long before they are available for purchase. The reason for this early adoption: new inventions are touted as the next great thing by the media, on YouTube, and in advertisements, movies and science-fiction books. Pedersen believes this process derails discussions of the dehumanizing and humanizing aspects of new technologies.

"We're told to automatically see an [invention](#) as a positive thing. But we need to look at the full circumference of a technology. It's not the job of scientists to do that."

To that end, Pedersen is writing a book that explores this issue. Specifically, she is interested in the language that journalists and marketers use to describe - and justify the invention of - new technologies. One example is a wearable device that records everything a user sees and does, essentially creating a digital life. Driving the development of this technology is a belief that human memory is fallible, and therefore, inferior to a machine.

But this reasoning is problematic, according to Pedersen.

"Humans were never meant to have perfect memories. A digital-memory device limits creative thought and our ability to 'misremember' things. These are basic human traits and they are being degraded."

Currently on sabbatical, Pedersen plans to further her research by attending various technology conferences around the world. During the

events, she will analyze how scientists explain and rationalize their latest inventions. In the end, Pedersen hopes her findings will motivate buyers to think critically about their technology purchases - before signing on the dotted line.

"When it comes to adopting new technologies," she says, "we need more forethought and less hindsight."

Provided by Ryerson University

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