

Green IT not helping climate change

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Richard Hawkins, Canada Research Chair in Science, Technology and Innovation Policy, says there is no evidence that information technologies necessarily reduce our environmental footprint. His research will provide input into the OECD (Organization for Economic Cooperation and Development) initiative on IT and sustainability at the United Nations' Climate Change Conference in Copenhagen, Denmark later this year.

"It was once assumed that there was little or no material dimension to information technology, thus, it should be clean with minimal environmental impact," says Hawkins who is also a professor in the U of C's Faculty of Communication and Culture. "However, we are finding that reality is much more complicated."

Firstly, Hawkins notes that digital technologies require a lot of energy to manufacture and eventually they create a huge pile of 'electronic junk', much of it highly toxic. They also use a lot of energy to run. Some estimates are that they use up roughly the same amount of energy as the world's air transport system.

Far from denying these environmental implications, Hawkins points out that many IT producers are gearing up to produce 'greener IT', using the environmental footprint as a marketing tool. "But probably most of the negative environmental impacts occur in the form of completely unintended, second and third order effects," he says. "These 'rebound' effects may not be mitigated by inventing 'greener' IT products and, indeed, may be intensified by such changes."

Rebounds occur when the use of IT contributes to or reinforces an increase in other activities that already have environmental effects.

"For example, technologies such as cell phones actually help us to become hyper-mobile," he says. "We didn't adopt the mobile phone so we could drive and talk on the phone, we adopted it because we were already driving so much. Creating a greener cell phone won't reduce the impact of increased mobility. The real question is what amount of mobility is sustainable?"

Hawkins says the problem is not that IT is inherently more or less green than other technologies. The problem is that it has been applied so extensively that its environmental implications - positive as well as negative - are often overlooked. Hawkins and his research team are establishing a more reliable basis for identifying and assessing the contribution of IT to our environmental footprint. They will present their findings at the upcoming European Communications Policy Research Conference in Seville, Spain on March 29 and at the UN's COP 15 Climate Change Conference in Copenhagen Dec. 7-18, 2009.

Source: University of Calgary

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