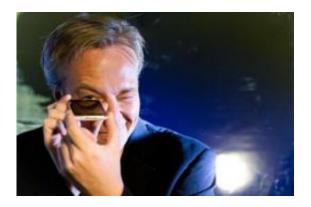# Researchers make board games electronic (w/ Video)

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Associate Professor Roel Vertegaal will present his research at a conference at MIT on Jan. 25. Credit: Photo by Jalani Morgan

(PhysOrg.com) -- A groundbreaking technology developed at Queen's University in Ontario, Canada may make traditional board games a thing of the past.

The technology allows groups of friends or family members to play electronic games like they used to do board games: in a sociable and physical setting, placed together around a table. It also eases game controls by using affordances of regular cardboard pieces.

"This is no doubt the future of board games," says Roel Vertegaal, an associate professor at Queen's Human Media Lab.

At first glance, the technology, by School of Computing graduate Mike Rooke and Professor Vertegaal, looks like a set of white, cardboard hexagons taken straight from the game board of Settlers of Catan. However, with the help of an overhead camera and a projector, each piece of cardboard becomes a mini-computer capable of displaying video images.

The camera tracking and projection allow researchers at the HML to anticipate technologies 5-10 years down the road, when thin-film Organic LED screens will allow these kinds of board games to become practical. "We just started thinking about, 'What if these new screens exist? What could we do with them?" says Professor Vertegaal.

Board games are just the beginning. HML student Eric Akaoka and Professor Vertegaal have also been pioneering research on DisplayObjects. This technology allows any object to become a computer. The DisplayObjects workbench allows designers to carve future appliances out of interactive Styrofoam that immediately displays images, allowing evaluation with users at an earlier stage than is currently possible.

"In the near future, a computer will have any shape or form, and iPhone-like computer displays will start appearing on any product. Projecting and tracking objects is just the beginning. These Organic User Interfaces will be embedded in real world interactions."

  More information: Paper - www.hml.queensu.ca/files/electronicboardgames.pdf
Paper - www.hml.queensu.ca/files/displayobjects.pdf

Provided by Queen's University