Research Entrepreneurs Accelerating Prosperity

Case study

“The donut” and the interactive digital wall: two Christie MicroTiles installations currently in use by REAP at the FELT Lab in St. Jacobs.

Christie helps spark innovation and entrepreneurship

Research Entrepreneurs Accelerating Prosperity (REAP) is an exceptional research initiative offered through the University of Waterloo that pays student researchers to develop new uses and markets for interactive display technologies. REAP is open to all students regardless of year or faculty. These students — or research entrepreneurs — don’t invent new technologies. Rather, the students innovate using already-available technologies, encouraging innovation and entrepreneurship. REAP does this by bringing together academic and private-sector partners to explore new technologies — specifically those involving digital display, interactivity and responsiveness environments — to spark research entrepreneurship.

With these goals in mind, it’s easy to see how a product as innovative as Christie® MicroTiles® was a natural fit for REAP. “[Christie] MicroTiles are central to our innovation and entrepreneurship: they are flexible in configuration, high-resolution and scalable — you can add more units as needed,” explains Professor David Goodwin, co-founder of REAP.

REAP is focused on creating businesses for students and new markets for its partners’ technologies. As a founding sponsor, Christie has provided several digital display products now used by REAP. In addition to those products, including two Christie DS+750 1-chip DLP® projectors and four Christie FHD551-X 55” high-definition, LCD flat panel displays, REAP has a total of 55 Christie MicroTiles that are shared between two locations: the University of Waterloo East Campus Hall, in the Canadian Centre of Arts and Technology (CCAT), Faculty of Arts, and the FELT Lab in nearby St. Jacobs.

Currently, the FELT Lab includes three sets of unique, digital displays created using Christie MicroTiles. The first two displays work together as an interactive digital wall with an accompanying column. The goal

Customer:
University of Waterloo — REAP

Location:
Waterloo, ON, Canada

Industry/Market:
Education/Digital Signage

Partners:
• Dynamix
• Float4 Interactive
• Quarry Integrated Communications

Requirements:
• Flexible and scalable digital technology
• Innovative design
• High-resolution, interactive display technology

Summary:
REAP pays students to develop new uses and markets for interactive display technologies. With these goals in mind, it’s easy to see how a product as innovative as Christie MicroTiles was a natural fit for REAP.

Products:
• 55 Christie MicroTiles
• 4 Christie FHD551-X 55” high-definition LCD flat panel displays
• 2 Christie DS+750 1-chip DLP projectors
• 1 Kommerz Mixed Reality Interface (MRI)
• 1 Christie Spyder X20 video processor

Results:
Christie has provided several digital display products now used by REAP. REAP has already established itself as innovative and forward-thinking and continues to expand and offer students the opportunity to explore new digital display technologies.
is for students to create a gesture-based gallery using the wall, and a high-resolution, life-sized narrator using the column. For instance, a recent project — powered by a Unity engine installed by Dynamix — allowed users to walk through a virtual gallery that displayed art from a local artist. A digital version of the artist herself then provided real-time commentary, explaining each individual work of art, whenever a viewer "walked up to it" in the virtual gallery.

The third installation is a rectangular display — without a center tile — that they’ve fittingly nicknamed “the donut.” This installation is meant to inspire students to create an environment that displays information when a Near Field Communications (NFC) enabled object is placed in the hole of “the donut.” Goodwin describes the FELT Lab as "a living lab," that brings together a wide range of people including artists, gamers, professional designers and visiting scholars to explore new ideas.”

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Professor David Goodwin
Co-founder of REAP

The University of Waterloo, East Campus Hall is also home to several Christie® products including Christie MicroTiles® displays such as the “speaker in a box” column, used to explore size, perspective and depth of field characteristics for the virtual “host.” A video art installation is also on display, and provides an immersive viewing environment using Christie MicroTiles on all surface planes within the viewing area. “[The Christie MicroTiles] have met our technical and marketing requirements very well. Overall, we have been very happy with the results,” comments Goodwin.

The ability to easily reconfigure the Christie MicroTiles to suit the research makes this technology very effective in trying out new ideas, and fits well with the overall aim of REAP. Thanks to this flexibility, the research projects and the Christie MicroTiles arrangements, are always changing. To explore the latest research happening at REAP, visit www.reapwaterloo.ca

REAP has recently expanded its footprint following the opening of the new University of Waterloo Stratford Campus. “REAP prototypes many of the research entrepreneurship processes and projects that Stratford will later take on in their academic programs,” explains Goodwin. In fact, the Stratford Campus — with its three-story-high Christie MicroTiles digital display wall and corresponding Digital Media Lab — is affectionately referred to as “FELT West.”

While REAP has already established itself as innovative and forward-thinking, Goodwin is always looking to the future with plans for expansion. Eventually, working together with partners like Christie, he says, “I want REAP to be for the future of the University of Waterloo, what co-op has been to its past: namely a way to renew the connection between ideas and the community, creating wealth, not just in the form of money, but also in terms of new ideas, opportunities and connections in a way that’s sustainable.”

Contact Christie
Contact us today to find out how your organization can benefit from Christie solutions.

For the most current specification information, please visit www.christiedigital.com

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