HITLabNZ
Human Interface Technology Lab New Zealand
Hangarau Tangata, Tangata Hangarau
www.hitlabnz.org

University of Canterbury, Christchurch, New Zealand

Founded in 2002, the HIT Lab NZ is a dynamic, international, multidisciplinary environment, bringing together people with varying viewpoints to design new ways of supporting people in their everyday lives, be it at work, play, or school. We take a human-centred approach, starting by looking at the people we are looking to support (e.g., young, old, skilled, unskilled), the tasks they need help with (e.g., repairing a device, visualizing a new house), and the environment they will be in (e.g., at work, in the home, visiting a museum), then designing solutions within these constraints using appropriate advanced technologies. Most of our work involves some combination of real and virtual content.

Virtual Reality (VR) is an immersive digital experience in which everything the user sees, hears and touches is virtual. Like a person in a swimming pool who is completely immersed in water, the user in a virtual world is completely immersed in the VR experience. All of the senses are stimulated through the medium of water, or in this case, the virtual environment.

Augmented Virtuality (AV) is the merging of real-world content with an otherwise virtual world. AV adds information captured from the real world to our perception of the virtual world. For example, the “weatherman effect” blends real-world actors into virtual sets.

Augmented Reality (AR) is the merging of digital content with an otherwise real world. AR adds generated information to our perception of the real world. For example, smart glasses can overlay contextual graphics with real-world objects, such as call-outs indicating points of interest in the direction the user is looking. Another example is AR apps for phone-based historical tour guiding.

Human-Robot Interaction (HRI) involves people interacting with physical entities that have the ability to sense, ponder and act on the real world. While there are many aspects to HRI, we can view this interaction as being just to the right of the Real Environment in the figure above. Examples include interacting with robots face-to-face (such as a hotel concierge) or operating remote search-and-rescue robots.

We hope to provide a welcoming space for people from a wide breadth of areas pertaining to the human condition, such as technical, design, artistic, and psychological. When in doubt, contact us! We’re always looking for innovative thinkers!

The Doctor of Philosophy (PhD) in Human Interface Technology is a multidisciplinary degree that is designed to allow students from a variety of backgrounds to undertake research in Human Interface Technology. The research generally focuses on technology falling somewhere along the Reality-Virtuality Continuum. The PhD typically takes three years, and the student will be able to completely focus on research during that time.

The Master of Human Interface Technology (MHIT) degree is a one-year program that takes students through the theory, process, and techniques for producing creative technical solutions.