The computer mouse has had a good run, but computer scientist Pourang Irani thinks it’s time it scurried aside and let a dinner plate relieve it of some tasks.

“The conventional mouse and touch pad are no longer sufficient, they are just not good enough,” Irani said. “As new devices and new technologies come into play you have to consider what different interactive paradigms you can use.”

Irani’s lab is looking at how to design next generation computer interfaces that will no longer be chiefly utilitarian; they will also enrich the user’s experience. He collaborates with Philips Research and Microsoft Research.

To develop them he relies on theories of perception, cognition and motor-behavior. Before new techniques can be introduced, fundamental questions about human limitations need to be answered so that interfaces operate in ways that are intuitive and mesh with natural cognitive abilities.

“In our lab we start with an understanding of how humans operate and then we build techniques that make digital interactions as natural as possible.”

New ways to share and experience information result.

In his lab, a table suitable for a family of four sits under a ceiling-mounted projector. A map is displayed and Irani moves it around using, for now, his mouse. But his lab is developing small infrared cameras that will line the table’s edges and detect the commands of hovering fingers.

“You may want to show photos from your trip that you captured with your cell phone. So, you may be able to ‘chuck’ them off your cell phone” – onto the table display and then rotate them with a dinner plate or cup so you can share stories with everyone around the table,” Irani said.

In addition to digital tables, Irani is trying to understand how he can get the roughly 1.8 billion people who use mobile phones or personal digital assistants (PDAs) to operate them to their full extent. Large documents like maps or next files pose a particular challenge.

“The decline in the quality of wetlands is a symptom of the decline in the importance we put on water,” Goldsborough said.

“The public’s perception is that water is limitless and we can use it for frivolous things. Well, we may have lots of water, but very little is in a drinkable form,” he said, noting that Shod Lake, reputedly the best water supply in North America, has recently shown alga blooms.

“But it’s water consumption that gets me. We just don’t get that we will eventually have to conserve water. I’m probably going to be living when serious problems arise, so when people say ‘think of your grandkids’, well hell, I’m not thinking of my grandkids. I want clean water to drink when I’m an 80-year-old.”

Returning to the topic of Netley-Libau Marsh, this autumn Goldsborough will begin examining to see if it can be resurrected. He has no idea if it’s possible because ecologists have never tried to revive something so far gone.

If the Netley-Libau Marsh were restored it could reduce nutrient loading going into Lake Winnipeg by six per cent. That may sound puny, but that equals the city of Winnipeg’s nutrient discharge. Deprived of this natural system, however, the city now needs to invest in expensive equipment to do the job of plants.

“The water problems we face stem from the fact that people view small bodies of water as a liability – a place for mosquitoes to breed or otherwise good farmland drowning. This view has to stop. We need to start seeing water and wetlands as an asset. In short, we need to change our attitude towards water.”

To learn more, attend “But Nary a Drop to Drink: Manitoba’s Wetlands and Water in the 21st Century” at the next Get to Know Research at Your University speaker series on Mar. 26. It starts at 7 p.m. in the Smarpark boardroom, located at 135 Innovation Drive. Admission is free and all are welcome. For more information please call 474-9020.