UNISPEAK

DISCOVERY DAYS 2009

+ KEEPING TRACK OF THINGS

BLUE-SKY SCIENCE GAP YEARS YOU

& YOU

EDIT ONE
DISCOVERY DAYS (PAGE 4)

When people say choosing a university and degree is a big deal, they're justified—believe me. When school finished, I chose to commit myself to another half a decade of extra study. Although it sounds like a sentence, it was a choice, and one that I remain happy about! That said, an important decision isn't always made with full confidence. Students need more than a UAC book and the sound advice of their Careers Advisers when it comes to choices about their future.

With firsthand experience on-campus, more than 6,000 Year 12 students can now say they had the advantage of self-discovery and, at the very least, a better idea of what direction they do or don't want their education heading.

UOW's annual Discovery Day program offered up a platter of "uni experiences" for students all over the state this February. Although the University wasn't in session during that week there was some serious learning afoot with faculties from the Creative Arts to Engineering offering sample lectures and practical workshops.

After a Discovery Day, you usually know whether Accountancy is your calling or Science holds the key—helpful if you were anything like me. When I sat down for an interview with one of my advisers in year 12, I was asked what I wanted to be when I left school. I responded half-seriously, "a responsible citizen". Ironically, I'm now studying Journalism/Law and learning how to deal with all sorts of ethically compromising situations may one day find myself in...

Saying that I would one day be a responsible citizen would have been more of a joke had I known how much I'd love my degree. But I didn't have the benefit of a Discovery Day. My choice was ultimately a lucky gamble.

KEEPING TRACK OF THINGS (PAGE 9)

As part of my work with the University's Media Unit I read and record every printed and electronic article, blog, cyber-rant that has cause to mention "UOW". I can account for at least three hours of my life trawling through posts after post of horrified citizen-journalists in staunch opposition to the new Big Brother described by UOW academic Dr Katina Michael.

In some of her recent articles Dr Michael has been careful to push a line in favour of human rights—that is, before the uncontrolled infiltration of microchip technology. She makes a distinction between the social morality of using implanted devices for medical purposes and to remedy other needs in society like the monitoring of prisoners. Fair and informed discussions about the ethics of "uberveillance" technologies must be conducted soberly, taking into account all the pros and cons of privacy compromise.

At the end of the day, I wonder if the issue of privacy rights in Australia is really what lies at the heart of fearing 'uberveillance'. Over time, we have reinvented our environment, altered the way we interact with it, shifted the priorities to make way for new things. All along, we've been fearful of the monster we've created and wondering whether, one day, the convenience of technology will abruptly end, waiting for dire consequences.

"Uberveillance" has a harsh sound, it carries a dark shadow. It's no surprise that some people react adversely to the notion of being implanted with a device containing sensitive, personal and unique information. Technology already dictates most aspects of our lives, it serves us but also serves to define our world. The final and most concerning fear is that it will one day define us—not just who but what we are. I can't argue that this fear is by any means rational. But I will admit to suddenly feeling worried.

EDITORIAL BY MELISSA COADE

Melissa is a third-year Journalism and Law student at UOW.
These tiny electronic devices are nothing new. Generically, the technology is called RFID—Radio-frequency Identification—and it just means a chip that stores information and can be read using radio waves. 'Microchipping' pets is notable because it's an example of using them in living creatures, but this technology is already all around us. eTags used on Sydney motorways use RFID technology. Couriers and freight companies use them to track items.

Dr Michael is a senior lecturer in information systems and technology at UOW. Her research has focused on the social implications of RFID and other ID technologies like biometrics—that's fingerprints, retina scans and the like. Amid optimism for the great things this technology can achieve, she fears that misusing it could lead to an unprecedented loss of privacy and human dignity. She calls this 'surbveilance, a state of permanent surveillance that's always on and—thanks to technology like RFID chips—always with you.

This concern isn't new, nor is the fact that the technology has made it out into the world before all angles have been considered. There's an inevitable amount of danger associated with new technologies, even if 'danger' just means something not living up to its promise. Early cars weren't remotely crashworthy; early mobile phones were bulky and expensive—$4,000 in 1984 for something that weighed half a kilo and gave you 30 minutes of talk time.

Nevertheless, in each case, these products find customers. So what does this say about people, especially the early adopters? Perhaps nothing out of the ordinary. After all, early car ads didn't mention crashing and dying. They mentioned power, prestige, comfort and technical virtue, the same things in car ads today.

"In the early 1970s, when barcodes were first introduced, consumers feared they would lose control of being charged accurately for their purchases," says Dr Michael. Soon after the barcode came the ATM, and there were similar concerns about handling control of financial matters over to machines. These kinds of concerns are ultimately outweighed by the convenience the technology offers, but the uneasiness remains.

"At the time—a picture a hand outstretched, inserting a card into a machine—it was the closest most consumers had come to touching an automatic machine." Part of this fear was losing the human touch, perhaps because you can't coerce a machine, or argue with it.

"In the partnership between man and machine," says Dr Michael, "the machine is the more 'protected' partner in a number of ways. It cannot be held accountable for malfunction." Indeed, when an ATM eats your bankcard, it's not the one having a bad day. So what about when the chip containing all your personal information fails?

"Technology will almost always fail—we have to be ready for when it does with alternate options and in a way that will not compromise our inherent rights or freedoms.

"Hackers have already shown how the RFID-based e-passport has already been cloned successfully and the ID contents dumped onto an ordinary smart card." In this case, clearly the technology itself was initially too vulnerable to be entrusted with such important information. Another group of hackers back in 2006 easily cloned a Vericorps human ID tag, an allegedly secure device. Identity theft—including forging or stealing passports—is among other things a key tool for organised crime and terrorist groups looking to circumvent border security.

"Before a technology can be unleased it must be thoroughly discussed and debated in the public arena. Too often, technologies are simply rolled out without any consideration of the social implications. The e-passport was rolled out in Australia with almost no warning to the public."

Dr Michael says that independent experts need to be consulted as to what safeguards are necessary for new tech. This could mean technological safeguards like metallic shields around e-passports to stop them being read covertly, or laws and regulations to govern the proper use of implanted chips. However, "judicial systems also are plagued with historical problems," says Dr Michael.

"One need only look at the US state anti-chipping laws. Compare these laws with the nation-wide Amendments and you have major conflicts in interpretation of what is and is not permissible. Even the state laws are in disagreement of who has the right to chip another and who does not, and penalties vary significantly."

It's not all doom and gloom, though. Dr Michael is staunchly against the use of chip implants to control minority populations—even prisoners, for instance—since it sets a dangerous precedent for discrimination. "However, chip implants that help to restore sight, or help in identifying Alzheimer's patients, or in the form of brain implants that control tremors to help people live a normal life, should be embraced."

It's just a matter of keeping track of these new developments and making sure a new-fangled piece of high tech doesn't end up undermining basic human rights.

If you're interested in studying any of this at UOW, you've got a lot of choices. You could study Law with a focus on privacy; IT specialising in wireless communication; Arts looking at technology in society; or maybe Engineering designing implants. Call UniAdvice on 1300 367 868 to talk options.

YOU CAN READ MORE ABOUT DR MICHAEL'S WORK AT UBERVEILANCE.ORG