
Listening to the birds in the Waikato**Dr. Tim Hunt**

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I currently lecture in the areas of Management Support Systems and Management of Information Systems in the Centre for Information Technology at Wintec. My current research interest is developing Android software for The Cacophony Project (cacophony.org.nz) to record birdsong.

The Cacophony Project aims to greatly improve the ability to eliminate pest predators through out New Zealand and monitor the effects on bird life that this brings. My involvement with the project through my research, is to help assess the effects that this pest control has, by collecting information about the changing quantity and type of bird species in these locations. We are currently building a technology infrastructure which will enable the automatic, ongoing recording and analysis from thousands of locations across New Zealand. The ability of mobile phones to make audio recordings and upload them to the internet combined with their low cost and availability were the reasons for choosing to use them as the basis for the recorder. Recordings are automatically uploaded to our computer server using wifi/mobile data or manual transfer from the phones memory card if neither are available.

Our aim is to apply artificial intelligence to transform these recordings into useful information. To help do this we first need to gather many examples of bird calls that have been correctly identified. With the help and support of the Hamilton City Council and the Waipa District Council, we are currently monitoring two locations in the Waikato, one of which is near one of the high points in Sanctuary Mountain Maungatautari, inside a pest proof enclosure. These recorders are demonstrating that the technology can perform consistently in a remote locations using solar power and mobile internet. Secondly the bird calls that are recorded can be used to train our software – we can't do that if we don't have examples of the calls. We are now establishing a historic record of bird song at these locations that future researchers will be able to use to establish trends in bird life.