

A Quiet Revolution

GROWING CREATIVE COMMONS
IN AOTEAROA NEW ZEALAND

A Quiet Revolution

GROWING CREATIVE COMMONS IN AOTEAROA NEW ZEALAND



www.CreativeCommons.org.nz

First published in 2015 by Creative Commons Aotearoa New Zealand

Creative Commons Aotearoa New Zealand
PO Box 19069
Wellington 6149
creativecommons.org.nz

All text in this book is copyright Creative Commons Aotearoa New Zealand and other authors as noted, and is licensed under a Creative Commons Attribution licence.

Open GLAM logo by Open GLAM is made available under a Creative Commons Attribution licence.

Kiwi Open Access Logo by the University of Auckland, Libraries and Learning Services is licensed under a Creative Commons Attribution Licence.

Cover design by Elton Gregory is licensed under a Creative Commons Attribution licence.



ISBN 978-0-9941302-5-9

Cataloguing-in-publication data for this book is available from the National Library of New Zealand.

Unless otherwise attributed, all articles written by Creative Commons Aotearoa New Zealand

Editing and production: Whitireia Publishing
Cover Design: Elton Gregory
Printed by Printing.com

This book was taken from manuscript to bookshelf by students of the Whitireia New Zealand publishing programme, who worked on editing, production, marketing and design. For more information about our editing and publishing training, visit www.whitireiapublishing.co.nz

Contents

Introduction	7
Open GLAM (Galleries, Libraries, Archives and Museums)	25
Introduction: Reflecting on Open GLAMs in Aotearoa New Zealand	27
Marsden Online Archive at the Hocken Library	35
RECOLLECT: Upper Hutt City Library	38
Te Papa Joins the Commons	41
The National Library's Use and Reuse Policy	46
Opening New Zealand's World War One Photography	50
Canterbury Earthquake Digital Archive	53
NZ On Screen and Audio Culture	57
Ministry for Culture and Heritage	59
Open Research	63
Introduction: Open Access to Research in Aotearoa	65
ePress: Open Access Publishing at Unitec	73
Anatomy Teaching Model Patterns Licensed with CC	76
Canterbury's Mandatory Research Deposit	78
Lincoln University's Open Access Policy	83
Open Access at the University of Waikato	87
Open Arts and Culture	93
Introduction: Open Arts and Culture in Aotearoa New Zealand	95
Illustrating with Creative Commons	103
Ad Lib: Novel Published Under CC	106
Meena Kadri: Creative Commons and Photography	108
Richard White: Openly Licensing Music	111
The Vertical Cinema Manifesto	114
Jem Yoshioka: Openly Licensed Digital Art	117
Open Source and Creative Commons in the Fine Arts	119

John Lemmon: Creative Commons Music in Aotearoa	122
Dylan Horrocks: Creative Commons Cartoons	125
Open Government and Data	131
Introduction: Open Government Information and Data in New Zealand	133
Who is Using Open Government Data?	138
New Zealand Electronic Text Collection	141
LINZ Data Service	144
Statistics New Zealand	148
Ministry for the Environment	151
Figure.NZ	154
GNS Science and GeoNet	157
Open Licensing and the Christchurch Earthquake	160
Koordinates	162
New Zealand Transport Agency	165
Open Education	169
Introduction: Open Education	171
The Media Studies Text Hack	177
The Computer Science Field Guide	181
The Waikato Independent	188
NZ's Open Educational Resource Foundation and Universitas	190
Otago Polytechnic	195
Creative Commons in New Zealand Schools	198
WikiHouse New Zealand	205
Appendices	
Acknowledgements	211
Further Information	213
Frequently Asked Questions	214
Creative Commons Licence Elements	216

Introduction

By Matt McGregor, Public Lead, Creative Commons Aotearoa
New Zealand

A Kiwi Oppikirjamaraton

In September 2012 a group of 30 Swedish maths enthusiasts got together for a *Oppikirjamaraton*. For non-Swedish speakers, this was a ‘textbook marathon’, in which volunteers wrote a secondary school mathematics textbook in a single weekend. The textbook was then released for free, under a Creative Commons licence, for anyone to adapt and reuse.

Inspired by the *Oppikirjamaraton*, a group at the University of Otago Te Whare Wānanga o Ōtāgo decided to follow suit and write their own textbook for undergraduate students of Media Studies. Erika Pearson, Senior Lecturer at Otago’s Media, Film and Communication Department, spearheaded the project because, as she put it, “textbooks currently available for New Zealand first-year students are often produced overseas, usually the US, and can have a cripplingly high price tag.

“Open texts are not only more affordable for students, they also are more flexible for teachers, who can pull apart open textbooks to find the more relevant and useful materials for their classes.”

And so, on the weekend of 16–17 November 2013, they began the Media Text Hack project: using the Pomodoro Technique and taking shifts of 25 minutes on, five minutes off, a group of lecturers and postgraduate students put together a textbook. Over the next few weeks, they filled any gaps left over from the weekend, and continued to edit the work.



As Richard White, Manager Copyright and Open Access at the University of Otago, put it at the time, “This is a real 21st-century textbook – I hesitate to even use that word – that harnesses the power of the web to break out of the print model we’ve had for the last several hundred years. It’s Open Access, which means a lot of different things: it’s free; anyone can read it, use it, adapt it; it’s also open to wider scrutiny, which helps improve it over time.”

The textbook was quickly picked up by British Columbia Campus and accessed by users all over the world. In March 2014, Erika then wrote the Cookbook, a how-to guide outlining the successes, failures and challenges of the Media Text Hack project. This, too, was made available under a Creative Commons licence. In 2015, the book became the official undergraduate textbook for a Media Studies course at the University of Otago, and has been used by students and educators around the world, from Canada to Cape Town.

At first blush, the Media Text Hack project appears quite radical: it bypassed an established industry, that of textbook publishing; it embraced new methodologies; by utilising the energy of postgraduate and early career researchers, it circumvented conventional academic hierarchies around the production of teachable content; and, of course, it was released free of technical, price and legal restrictions on reuse.

In the end, though, this Kiwi *Oppikirjamaraton* was fundamentally about a group of researchers and educators using existing technologies to create and share knowledge as widely as they possibly could – the core purpose of



New Zealand's education institutions. In so doing, they will likely save thousands of students from buying expensive, closed-access textbooks.

The Media Text Hack is one of many such projects. Taken at a global level, open textbook projects like this have the potential to save students worldwide many billions of dollars, and to also lead to better educational outcomes. According to the Student Public Interest Research Group in the United States, 65% of surveyed students choose not to buy a college textbook because it's too expensive, and 94% of these report that they suffer academically because of this choice.

Figures such as these have led the United States' Department of Labor under the Obama administration to dedicate \$2 billion in contestable funding to produce Open Educational Resources (OERs) for American community colleges, and have driven many other OER projects in nearly every country in the world.

New Zealand's Quiet Revolutions

Such projects depend on two twenty-first-century innovations: first, technologies that enable users to write, adapt and share educational resources; second, a global open licensing system that enables everyone on the planet to give and receive permission to use others' work in a clear and legally robust way. These innovations reduce or remove barriers to making and sharing culture and knowledge – and this, as we have seen from the Media Text Hack, allows for some truly exciting new projects.



The second of these innovations, the licensing system known as Creative Commons (CC), is the focus of this book. At its core, Creative Commons is a suite of six copyright licences (remember, ‘licence’ just means ‘way to give permission’). Creative Commons licence users can choose to restrict commercial reuse and derivative works; they can also choose to require derivative works to use Creative Commons licensing. All Creative Commons licences require those who copy licensed works to provide attribution.

There are some additional legal details in the licences, but that’s a good chunk of what you need to know. The core concepts of the Creative Commons licences – Attribution, Non Commercial, No Derivatives and Share Alike – are designed to be easy to understand and to use. We’ve included more information, as well as a handy chart, at the end of this book.

But why publish a book? While at the 2011 Foo Camp, Jez Weston, then Policy Analyst at the Royal Society of New Zealand, referred to a “quiet revolution taking place in the way we use, generate and transfer knowledge”. As this book will show, we are living through many such ‘quiet revolutions’, with implications for how all New Zealanders access and engage with our culture and knowledge.

Opening All the Things

New technologies and licences have enabled projects like the *Oppikirjamaraton* and the Media Text Hack, not to mention the thousands of other open textbook projects worldwide. But what

about research? What about data? What about government reports, culture and heritage works, music, art and literature?

Each of these areas has its own challenges and opportunities. In New Zealand schools, for example, teachers do not own the copyright to resources they produce in the course of their employment (a consequence of section 21.2 of the 1994 Copyright Act). We believe that this means schools – all 2,500 of them in New Zealand – should adopt Creative Commons policies to allow for greater resource sharing among the teaching profession.

Another example comes from the wonderfully acronymed GLAM sector (that's galleries, libraries, archives and museums). Our heritage institutions rarely own copyright to the works they hold. As a result, there is a focus in the heritage sector on opening up more out-of-copyright works and encouraging donors of newer works to provide more liberal permissions.

In the research sector, the business model of scholarly publishing and the reliance on prestige and reputation in academia have proved to be major barriers to Open Access to publicly funded research. The good news is that several New Zealand universities – joining their international counterparts – have adopted Open Access policies, allowing for free public access to academic research.

As these examples suggest, some of the greatest opportunities to open New Zealand's culture and knowledge are in the state sector, which holds and owns vast amounts of copyright works. Think of all the schools, universities,

polytechnics, libraries, archives, galleries, museums, government departments, research institutes and crown-owned companies – the social, cultural and economic benefits of making these works openly available are truly massive.

What's the NZGOAL?

This potential has been recognised by Cabinet, who, in 2010, approved the New Zealand Government Open Access and Licensing framework (NZGOAL). NZGOAL advocates for the use of Creative Commons licensing for public sector data and information.

NZGOAL is a great piece of policy that has the potential to open up millions of government-funded works. Essentially, NZGOAL either directs or strongly encourages agencies that produce or fund copyright works to consider making that work available using Creative Commons open copyright licensing.

It's fair to say that it will take some time to fully implement NZGOAL: the state sector is large, complex and can face competing priorities. But the open community is making real progress, and we have already seen many exciting and world-leading open releases.

One early adopter of NZGOAL is the Ministry for Culture and Heritage Manatū Taonga, which has made its popular national encyclopedia Te Ara available under a Creative Commons Attribution-NonCommercial (CC BY-NC) licence, meaning anyone can copy and repurpose its works without asking the Ministry for permission.

Another leading agency is Land Information New Zealand Toitū Te Whenua (LINZ), which has released truly massive open datasets to its award-winning LINZ Data Service (LDS). LDS allows anyone to view and ‘layer’ multiple datasets in their web browser. Some of the more popular datasets include high-resolution aerial photography of the entire country and aerial photography of Christchurch after the 2011 earthquakes.

A range of datasets from other agencies, including Statistics New Zealand Tatauranga Aotearoa and the New Zealand Transport Agency Waka Kotahi (NZTA), have also been released under an open Creative Commons licence, and have been put to use in a range of useful and fascinating projects. ANZ Bank, for example, used NZTA transport data to produce the ‘ANZ Truckometer’, which used traffic flows on New Zealand state highways to predict movements in Gross Domestic Product.

Another more prosaic example is the use of LINZ tide data. The release of this data under a Creative Commons Attribution licence enabled a range of developers to produce apps for both iPhone and Android devices, including NZ Tides Pro, NZTides, Tideplan, Tide Prediction and Quicktide.

It's Time to Save Time

Open data, though, is not only about new products; it's also about saving time and money. Open data ensures, in the first place, that datasets produced by agency X aren't duplicated



by agency Y. (Believe it or not, government agencies haven't always been great at sharing data and information.)

It also makes it easier for users to access and reuse data. For professionals in data-intensive fields, this allows them to do their job more easily; for citizens looking to access data, this reduces the cost (in time, money and stress) of requesting data from public agencies.

The experience of Wellington City Council (WCC) bears this out. While council data – such as aerial photography, contours, parks, pipes, windzones and walkways – has always been available to ratepayers, in the past the process required both a specific request and a processing fee. According to WCC staff, this would lead to several data requests per week, with council staff having to manually extract data each time.

This wasn't, as you might expect, a super-efficient use of time for either the Council or the public and the numbers suggest that the process was putting off many potential users. After releasing their data openly, the numbers increased exponentially, with several datasets receiving over 10,000 downloads since their 2010 release.

While it can be hard to quantify these sorts of efficiency gains, it's easy to see how the release of open data and content can save time and money across New Zealand society. Looking beyond open data, think of 100,000 teachers looking for educational resources, publishers looking for images, researchers looking for research (and research data), artists looking for creative works to adapt and build on, and any other New Zealander who wants to use or access copyright materials.

From Making Open to Open Making

Some of the most innovative uses of Creative Commons licensing are in the maker community – that is, the community of people that like to use new technologies like 3D printers to, well, make stuff. One interesting example of this happened in 2014 when the Canterbury Spatial Data Infrastructure Programme, managed by LINZ, released 3D images of Christchurch before the earthquakes under a Creative Commons Attribution (CC BY) licence.

Under the terms of this licence anyone could copy, adapt and recreate a replica of the 36 ‘core city blocks’ and four ‘outer CBD blocks’ of pre-earthquake Christchurch. LINZ Chief Executive Peter Mersi says, “A benefit of the open licence means that anyone can download and improve the models, and use them in a range of ways to celebrate the heritage that has been lost.”

The folks at LINZ aren’t the only people thinking about open licensing in the built environment. One of the most exciting projects to be developed under Creative Commons licensing so far is WikiHouse, a global Open Source hardware project that enables anyone to “design, download and ‘print’ CNC-milled houses and components, which can be assembled with minimal formal skill or training”.

The New Zealand chapter of WikiHouse was formed after the 2011 Canterbury earthquakes as a way to make the rebuild more efficient and sustainable. As Martin Luff and Danny Squires, founders of the New Zealand WikiHouse project, point out, “A lot of people down here in Canterbury are stuck

in limbo because they are dependent on a whole hierarchy of other agencies before they can get on with things like repairs and replacement housing.

“We wanted to empower people. We wanted it to be world-class in terms of its ability to stand up to seismic resistance. We also wanted it, longer term, to go beyond sustainability to something that could be restorative to our environment.”

Another fascinating example from the world of making is Bronwyn Holloway-Smith, a Wellington-based artist interested in “internet culture, 3-dimensional printing, open source art, and space colonisation”. In 2012, Bronwyn participated in ‘The Obstinate Object’, a multi-artist exhibition at Wellington’s City Gallery. As part of this show, Bronwyn created digital files of other works in the exhibition and printed small 3D replicas, which she added to the exhibition. She then posted the files on Thingiverse under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence, for anyone to download and print for themselves.

Since uploading the files to Thingiverse, many of the files have over 3,000 views, with one work – ‘After Glen Hayward’s *Open Circuit (Security Camera)*’ – receiving over 750 downloads.

Another Kiwi project came from the 2013 Mix & Mash competition. The winner of this competition, Graeme Jenson, produced an online mihimihi that traced his whakapapa (or genealogy) back to the birth of humanity, reusing and repurposing images and information from the National Library of New Zealand Te Puna Mātauranga o Aotearoa, DigitalNZ Ā-tihi o Aotearoa and Papers Past along the way.

Professor Lawrence Lessig – one of the founders of Creative Commons and the 2013 judge for Mix & Mash – concluded that “there is something impossibly difficult about the telescoping nature of the story this tries to tell, and the combination of the two perspectives – the timeline and then video – to create a powerful impression.”

Artists and Creators

Creative Commons licensing is also used by more conventional artists, including writers, photographers, musicians and filmmakers. Why would they do such a thing? Reasons vary. Some use Creative Commons to expand their audience by removing the legal barriers to others’ copying and sharing their work. This allows them to make better use of the internet and digital technologies to increase their audience and profile. Others use Creative Commons because they are committed to growing the Commons. And some artists also use Creative Commons because it supports the business model for their creative work.

Consider Meena Kadri. A long-time user of Flickr (under the name Meanest Indian), Meena releases many of her photos under a Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licence. Her most popular set of photos – on the Uttarayan Kite Festival, India – has received over 50,000 views. Other popular sets include ‘Indian Street Art’ (over 40,000 views), ‘Back View Bollywood’ (nearly 25,000 views) and ‘Faces of India’ (over 19,000 views).

Given the popularity of her Flickr account, her images



have featured in countless blogs and presentations. For-profit companies have also paid to use her work, including *Serendib*, the magazine of Sri Lankan Airlines, and Phaidon Books, who included ten of her images in an Indian cookbook.

Other artists using Creative Commons licensing include novelist and critic Thomasin Sleigh, who released her (print-only) novel *Ad Lib* under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence; musicians Richard White, Disasteradio and Jon Lemmon; illustrators Judith Carnaby and Jem Yoshioka; and cartoonist Dylan Horrocks.

Dylan Horrocks points out that Creative Commons provides him with an alternative to what he sees as a narrow, but dominant, vision of culture and art. “When I make a piece of art, it’s me responding to a whole lot of art and the world around me. When I finish it, I want it to go back into that flow of art and ideas, and be shared and responded to by people. Treating it as a single piece of property seems wrong. Lots of people have a relationship to that piece of art.”

The great thing about Creative Commons licences is that you don’t need to ask anyone’s permission to use them. This means that there are many, many more artists out there using Creative Commons that, as an organisation, we haven’t heard of. In fact, according to information collected by the National Library of New Zealand, over 8% of music collected by the library under legal deposit has a Creative Commons licence.

Creative Commons in New Zealand

All this has happened rather quickly. Danyl Strype, a keen Open Source advocate, had helped set up the CC-NZ email list in October 2005, from which grew an enthusiastic community of open licence advocates. One result of these lively discussions was that Adam Hyde registered the creativecommons.org.nz domain. Then there was a large meeting at the National Library in Wellington about the Creative Commons project in 2006. Soon after that meeting, Dr Brian Opie – then Senior Lecturer in the Department of English at Victoria University of Wellington Te Whare Wānanga o te Ūpoko o te Ika a Māui, and Executive Director of the Council for the Humanities – signed a memorandum of understanding with Creative Commons Headquarters, officially launching Creative Commons Aotearoa New Zealand (CCANZ) under the umbrella of the Council.

After the meeting at the National Library, Jane Hornibrook was hired to help manage the project on a day-to-day basis, and began advocating for the use of Creative Commons licensing across the country.

So, we had a project, but we didn't yet have any licences. At that point, the latest international Creative Commons licences, version 3.0, had been drafted by lawyers in the United States, which made them more complicated (and less readable) than they needed to be for New Zealand. To help address this problem, Brian made contact with a lawyer, Andrew Matangi, who happened to work with Brian's son. Andrew worked

to 'port' the licences to New Zealand, building on the plain English efforts of lawyers in England, Scotland and Wales. And so, at the end of 2007, Creative Commons Aotearoa New Zealand launched its local 3.0 licences.

Around this time, some people in the State Services Commission were looking into the possibility of using Creative Commons licensing for government data and information, following on the heels of similar work being done in Australia and the UK. After a long period of consultation, Cabinet approved NZGOAL.

NZGOAL was followed in 2011 with the Declaration on Open and Transparent Government, which strengthened and supported the mandate for agencies to use NZGOAL.

While this was happening, CCANZ followed the Council for the Humanities into the Royal Society of New Zealand in June 2010, where the project was housed for the next four years, with funding from the Ministry for Research, Science and Technology Te Manatū Pūtaiao (as it was then called). Around this time, the CCANZ formed its Advisory Panel, to ensure that the project meets the needs of its various constituent groups, and to provide strategic advice.

The latest changes happened in July 2014, when CCANZ shifted to the Open Education Resource Foundation (OERF), based out of Otago Polytechnic. While CCANZ remains based in Wellington, the OERF provides governance and administrative support. Thanks to the OERF, CCANZ is in great health, with many exciting projects in the works.

Towards an Indigenous Knowledge Notice

In July 2015, CCANZ translated the Creative Commons 4.0 licences into New Zealand's first language, te reo Māori. Now, with the translation complete, CCANZ is looking to help individuals or groups – such as iwi or hapū – who wish to make their works more accessible. Creative Commons is planning to develop a standard notice that would provide basic information on how the work is to be used.

As many indigenous peoples have long argued, copyright is not always an effective legal framework for indigenous knowledge. This is partly because copyright protection on a work lasts for a limited period of time, after which the work enters the public domain, where it can be accessed and reused by anyone – which may not be culturally appropriate.

The age of many indigenous works, which may be very old, means that their copyright will have long expired. Also, many indigenous works do not have a single identifiable author. Instead, such works may be collectively authored, and may have been incrementally created over the course of several generations.

Without any legal protections, and without any standard notice, indigenous works that might otherwise be openly available are currently closed. CCANZ hopes that a notice will give the kaitiaki of indigenous works the option of making their work more openly available, where the kaitiaki consider this to be appropriate.

Growing the Global Commons

One of the great things about the Commons is that it, like copyright, is international. This means that everything Kiwi artists share under a Creative Commons licence is automatically shared with the world. By the same token, this means that everything the world shares under a Creative Commons licence is automatically shared with us.

The good news for Aotearoa is that we're not the only ones embracing open licensing: it's happening everywhere. There are Creative Commons affiliate projects like ours in over 70 countries, all with their own priorities and challenges, and all with their own exciting releases of great openly licensed content and data. A conservative estimate suggests that between 800 million and one billion openly licensed works are already available under a Creative Commons licence, with this number sure to grow rapidly in the years ahead.

There are far too many exciting international projects to discuss in this short introduction, but some of my favourites include: Rijksmuseum, Project LATIn, TACCCT Grants, NIH OA policy, Leicester Schools OER, OER Poland, BC Campus and Open Seoul.

Join the Revolution

This is all very exciting but we still have a long way to go. We want the takeaway message from this book to be not so much "look at these cool projects" as "why aren't these cool projects happening everywhere?" While there are valid reasons for some works to remain closed, such as privacy concerns or commercial

interests, it is more often the case that works remain closed simply because nobody thought they could be otherwise.

We at Creative Commons Aotearoa New Zealand are playing our small part by making it easier for institutions and organisations – including schools, universities, archives, libraries and more – to adopt Creative Commons policies, in order to make open licensing standard practice.

But creating lasting change in the ways New Zealanders can access and reuse their culture and knowledge requires champions. We need people to make sure that Creative Commons is always considered before any organisation, but particularly those that receive public funding, releases a copyright work.

This is where you come in. We want Kiwis interested in helping grow the Commons to champion Creative Commons in their local communities and publicly funded organisations. This includes your local school, council, polytech, library, museum, archive, gallery, academic department, research institute or government agency.

You don't need to ask our permission to champion CC, but we are here to help out. We've developed a heap of resources in each of our target sectors, and can let you know how you can contribute to our collective efforts. You'll be joining thousands of New Zealanders already using or advocating for Creative Commons licensing, helping to grow the Commons in Aotearoa.



Open GLAM

(Galleries, Libraries,
Archives and Museums)



Reflecting on Open GLAMs in Aotearoa New Zealand

By Thomasin Sleight, Community Manager, and Fiona Fieldsend, Manager, DigitalNZ Ā-tihi o Aotearoa

It is redundant to say now, in 2015, that digital technologies offer amazing opportunities as well as tricky problems for galleries, libraries, archives and museums (GLAMs). How people access information has radically changed, as has society's expectations of GLAMs. When making material available online, licensing is a ubiquitous question that the sector circles around. Open GLAM is a set of proposals: the use of Creative Commons (CC) licences, the public domain and other less restrictive rights statements to allow for easy access and the active reuse of cultural collections.

The Open GLAM discussion started to formally take shape in May 2002 at the inaugural National Digital Forum (NDF) conference. Here, open access to online information, transparency about copyright and intellectual property issues, indigenous rights, and the concept that copyright law must also strike a balance between the rights of owners and the legitimate needs of the users of copyright works were all firmly put on the table. Open GLAM was then formally kickstarted in 2003 by the World Summit on the Information Society Declaration of Principles and Commitment. At this event in Geneva, the principle that “information and communication technology (ICT) should enable anyone and everyone to have instantaneous access to knowledge

and information” was ratified. New Zealand GLAMs deftly summarised this as “information democracy” and it became a core theme in strategic planning across the sector.

With that principle in hand, the National Library of New Zealand Te Puna Mātauranga o Aotearoa took the lead on the development of the content section of the 2005 New Zealand Digital Strategy. The key goal: “To unlock New Zealand’s stock of content and provide all New Zealanders with seamless, easy access to the information that is important to their lives, businesses and cultural identity.”

Alongside this, the National Library publicly supported the emerging Creative Commons concept and fostered discussions with a range of experts on the need for Creative Commons licences to be adapted to the New Zealand legislative environment.

In 2006, the National Library brought together organisations from across the sector for a national information meeting and workshop. As mentioned on the Creative Commons listserv, the National Library hosted “because they are committed, as part of the draft digital content strategy, to investigate the feasibility of setting up a Creative Commons for Aotearoa.” This Digital Content Strategy was published in 2007. “Creating A Digital New Zealand: New Zealand’s Digital Content Strategy” included the outcome “Digital content is being shared and used” and highlighted the challenges of unlocking publicly owned content, strengthening the public domain and creating a connected public digital Commons.

These two documents, the Digital Strategy and the Content Strategy, as well as the introduction of Creative Commons in New Zealand, all raised the level of discourse about the digital Commons, use and reuse, and the public domain across the GLAM sector. However, opening up content for reuse remains challenging for GLAMs. Over the years, New Zealand institutions have raised and worked through complex issues: the protection of indigenous rights, existing donor agreements, revenue requirements of image collections, and orphan works, to name a few.

The New Zealand Electronic Text Centre Te Pūhikotuhi o Aotearoa was one of the earliest GLAM adopters of Creative Commons licensing: in 2008 it chose Creative Commons licensing on the digital surrogates of the digitised texts published on its website. Soon after, NZ On Screen launched, and applied Creative Commons licences to, its Screentalk interviews. The National Library was one of the early contributors to Flickr Commons with a collection of no known copyright materials launched in November 2008. Following this, the open source Kete Community Repository built Creative Commons licensing into its upload workflow for new materials.

It was also in 2008 that DigitalNZ Ā-tihi o Aotearoa launched. Funded as a result of the Digital Content Strategy, DigitalNZ sought to make New Zealand digital content easier to find, share and use. It started out by prototyping, testing and showcasing new ways of doing things with digital content. One such prototype was the Memory Maker,

launched in conjunction with the Auckland War Memorial Museum Tāmaki Paenga Hira, which allowed people to make their own videos using a selection of materials from a range of collecting institutions. Participating organisations therefore had to provide copyright-free digital items; for some, it was the first time they had made collections items specifically available for reuse.

DigitalNZ's core work was an aggregated search of collections, primarily GLAMs at first, to provide a one-stop shop for New Zealand digital content. DigitalNZ developed a licence schema that made it possible to filter search results by rights, and developed the Use and Reuse Guide as part of a suite of Make It Digital best practice guidance.

DigitalNZ launched the Mix & Mash competition in 2010, aiming to “show what is possible when a public agency, a library, a scientist or a museum gives you permission to use their copyright works. We want to increase the amount of open content and data out there, and your stories help us show why it's worth doing!” The competition challenged students, creatives and developers to use openly licensed digital content and data to make new artworks, resources and tools. Winners ranged from an illustrative re-working of a Katherine Mansfield poem that drew inspiration from GLAM pictorial collections to a Great New Zealand Walks smartphone application that included content from a variety of GLAM institutions. Collaborating with other institutions and like-minded sponsors, Mix & Mash ran again in 2011 and 2013,

and received many inventive, funny and surprising entries that reused open material from collections across New Zealand.

Conversations around licensing, the public domain and heritage institutions continued in a number of fora including the annual NDF conferences. 2009's conference hosted a 'Fair Use Forum', chaired by the late Paul Reynolds, with participants from the National Library, the Creative Freedom Foundation and the Digital Publishing Forum. Successive NDFs have all included similar panels and presentations, and have provided a space for cross-sector discussion about copyright, access, and the reuse of collections.

Alongside all this talk was some exciting activity: a growing number of GLAM institutions adopting Creative Commons and open licences. Palmerston North City Library, Auckland Art Gallery Toi o Tāmaki and Auckland Libraries Ngā Whare Mātauranga o Tāmaki Makaurau were some of the first organisations to apply 'no known copyright' statements to relevant items in their digital collections. Later, Archives New Zealand Te Rua Mahara o te Kāwanatanga uploaded digitised footage from the National Publicity Studios, and they applied the Creative Commons licence that is supported by YouTube. When Upper Hutt City Library launched their RECOLLECT site of digitised archival material, the majority of the collection was licensed under a Creative Commons Attribution-NonCommercial (CC BY-NC) licence.

The development of Open GLAM in New Zealand was considerably bolstered by the release of the New Zealand

Government Open Access and Licensing policy (NZGOAL) in 2010. NZGOAL explicitly states that “opening up this information for reuse has considerable and widespread benefits to government, industry and the public” and added governmental heft to the argument for publicly funded cultural institutions to openly license their material, and acknowledge where content is out of copyright. For example, NZGOAL was a significant factor in the Museum of New Zealand Te Papa Tongarewa’s November 2010 decision to adopt the ‘no known copyright restriction’ statement and Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licence for digital surrogates of collection items displayed in its Collections Online.

2014 was an important year for Creative Commons and the Open GLAM movement in New Zealand. The National Library launched its Reuse Policy, which laid out a clear framework for identifying out-of-copyright material and explicitly advocated for the use of Creative Commons licences in its third principle: “Negotiations with rights owners and donors will promote and be informed by the Creative Commons licensing framework as a mechanism to facilitate use and reuse of in-copyright works.”

In mid-2014, the WW100 Office, prompted by the Ministry for Culture and Heritage Manatū Taonga’s Copyright and the Cultural Sector meeting, coordinated consistent licensing of the H Series, the official World War One photographs taken by Henry Armytage Sanders, across several institutions that hold

that collection. Also in mid-2014, Te Papa removed the resolution restrictions and enabled high-resolution download on over 30,000 no known copyright and CC BY-NC-ND images.

Where does this leave New Zealand's Open GLAM movement in 2015? Importantly, New Zealand now has a number of best practice examples, from both large and small institutions, for other GLAMs to emulate in opening up their collections. In particular, Te Papa, as New Zealand's national museum and art gallery, has been transparent, through a series of blog posts and the release of a data set on image download statistics, about tracking the impact of their image release. They are reporting their research back to the sector.

Perhaps more significantly, the proliferating activity of digital communities points to innovative and unexpected uses of heritage material, and the new demands that audiences have of GLAM institutions: popular Facebook pages sharing archival images, Photoshop experts colourising WWI photographs and GIF-makers remixing old paintings. Responding to this, Creative Commons Aotearoa New Zealand has worked with GLAMs on useful tools such as a guide for donors and depositors to cultural institutions, and an off-the-shelf reuse policy for institutions to adapt and adopt.

It has been a busy 12 years of Open GLAM in Aotearoa New Zealand, and the movement continues to build momentum. Complex issues remain, such as the protection of indigenous rights and balancing the sometimes competing interests of other stakeholders. However, as increasing

numbers of institutions put concerted effort into identifying and releasing collections that are legally and ethically able to be openly licensed, and showcasing the value of this work, the Open GLAM movement can only continue to strengthen and grow.



Marsden Online Archive at the Hocken Library

The University of Otago Library Nga Whare Whakamārama o Te Whare Wānanga o Otāgo has an online archive that for the first time allows researchers to search and mine Samuel Marsden's historic journals and letters with technological online tools. The documents, detailing life on the nation's first missions, were brought back from London more than a century ago by Thomas Hocken and have been transcribed by retired Associate Professor Gordon Parsonson.

As reported on the Marsden Archive website: "This was a collaborative project undertaken by the University of Otago Library and the University's Centre for Research on Colonial Culture. This project to create the Marsden Online Archive set out to achieve a number of objectives including:

- creating digital objects from historically significant, unique items in the Hocken Collections;
- providing appropriate metadata for these resources, so as to enrich contextual information and extend discoverability;
- identifying and deploying appropriate technical and discovery standards to ensure accessibility, preservation and curation; and
- developing an appropriate platform, structure and web interface to make the collections useful as a research asset."

Vanessa Gibbs, Business Analyst and Mining Marsden Project Manager at the University of Otago Library, speaks about the use of Creative Commons in the Mining Marsden Project: “The Project Sponsor for the Marsden Online Archive was already familiar with Creative Commons licensing. He recommended the use of the Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) New Zealand licence to Gordon Parsonson (the copyright owner of the transcripts). We chose that particular licence because we wanted to make sure Gordon would continue to get attribution for his work, but we didn’t want to stop other researchers being able to build upon the material.

“From there it was an easy decision to use the same agreement for the digital images and metadata. The Creative Commons licence structure provides a clear and easily understood framework for the application of copyright licences. It was easy for us to apply the licence and it is easy for our users to understand the terms under which they can use the material.

“As we are using the same licence for both the transcripts and the images and metadata, we have set up a Terms of Use webpage. Here we detail when Gordon needs to be attributed and when the Hocken Collections need to be attributed. This way there is no confusion for our users.

“We’ve had really great buy-in from staff on the Marsden Online Archive. They are now more open to using a Creative Commons licence for other material. I guess they see Marsden

as a test case for using a Creative Commons licence and so far it has been very successful.

“There are already a number of other projects that Library staff are discussing using Creative Commons licensing for. Hopefully the success of the Marsden Online Archive will highlight the usefulness of the Creative Commons licensing framework.”



RECOLLECT: Upper Hutt City Library

In 2012, Upper Hutt City Library (UHCL) launched RECOLLECT, an online repository of materials from its community archive. The announcement made the front page of the *Upper Hutt Leader*, where it was celebrated as “a New Zealand first”.

The RECOLLECT platform allows users to browse and discuss archival materials. At present, the site has over 21,000 photos and hundreds of other items freely available to access and download.

What was not mentioned in the *Leader* story, however, was perhaps RECOLLECT’s most remarkable feature: nearly all its heritage items – old and new – are made available under a Creative Commons Attribution (CC BY) or Creative Commons Attribution-NonCommercial (CC BY-NC) licence.

The Upper Hutt Community Archive was created in 1996 to host heritage materials from the local community. It has grown into a rich resource for local residents and includes thousands of photos, newspapers, oral histories and maps.

Until recently most of these archival items were largely unknown. Members of the public would have to request copies, and would be charged an administrative fee by the UHCL. As UHCL Archivist Reid Perkins points out, this took up valuable staff time and tended to “put people off using the images”.

RECOLLECT allows users to download images from UHCL’s archive whenever they like. Reid says, “This has been a popular feature. People like the fact that they have easy access to these images, which of course if we were using a traditional All

Rights Reserved copyright model we wouldn't be able to do."

Reid came to the RECOLLECT project in May 2012, and says he was "very impressed" with the library's attitude towards sharing and reuse. "A lot of institutions are quite risk averse. I was very pleased to come here and see that they didn't seem to have that attitude."

In partnership with New Zealand Micrographic Services Ltd, library staff agreed that the Creative Commons licences fit with the general ethos of the archive. Their remarkable range of openly licensed resources includes collections of the *Upper Hutt Leader* itself.

Reid admits that the question of rights has given him some nervous nights, but that most people seem to be willing to allow the public to access and share their local heritage. "There does seem to be a good, positive attitude here. The main feeling seems to be that people are proud of their local history and want it better known. They want people to access their images."

Reid points to the collection of photos by Revelle Jackson, a prominent Hutt Valley photographer. Jackson was the official photographer for local events – including A&P shows, birthday parties and weddings – for several decades, and his collection of over 8,000 photos is now available for download for distribution and reuse under a Creative Commons Attribution-NonCommercial (CC BY-NC) licence.

When asked about other libraries following in the footsteps of UHCL, Reid points out that most libraries and archives are caught between two basic mandates: to protect the collections

and to provide access. While Reid understands the dilemmas many librarians and archivists face, he says he's "pleased to be working in a place where it does seem to lean the other way, towards openness".

Reid says that he would "definitely encourage other institutions to go down this route".

For smaller, regional organisations, open access and open licensing are a good way to encourage the local community to share and reuse heritage materials. "Our issue is getting people to use the stuff, providing access so that people use our collections. As soon as we are fairly sure that there aren't any copyright claims, we want to put the work in circulation."

As local groups continue to donate materials to the archive, Reid looks forward to growing RECOLLECT. "A lot of material is coming in digital form only. We often digitise the material, and let the donors keep the original. We're building up a lot of material like that."

As the collections grow, so does the range of materials available for sharing and creative reuse. "I've been getting donors' permission to use their material digitally, and this includes Creative Commons licensing. I make a point of telling people, because they might be worried or misunderstand, but no one seems that concerned. They want their images to be out there and available.

"I've always made an effort to explain the licences to donors, and no one's been bothered so far, to be honest. So far, everyone's agreed."



Te Papa Joins the Commons

People at the Museum of New Zealand Te Papa Tongarewa have been thinking about Creative Commons licensing for a while now. As our national museum, Te Papa is the kaitiaki of an incredible range of artistic, scientific and cultural items, including paintings, photos, objects, specimens articles and over 30,000 Taonga Māori.

A decade ago these collections were difficult for most New Zealanders to access, especially for those who lived outside of Wellington. Since then the team at Te Papa has been working on digitising their collection of over two million items. In 2005, after years of work, Te Papa launched Collections Online, a search engine for Te Papa's collections; it was relaunched in its current format in 2009.

Before any item can be reproduced online, the team at Te Papa have to figure out whether they have the right to do so. This can be an arduous process. As a result, Victoria Leachman, Rights Advisor at Te Papa, says, "Our focus at Te Papa has been on accessibility, rather than reuse."

The result is an outstanding digital archive, consisting of over 200,000 objects. This is a fantastic resource for students, researchers and members of the public.

In a digital environment, however, many visitors to Te Papa's collections want to share, remix and reuse the images and data they find. Recognising this, Victoria and her team have been steadily applying Creative Commons licences to

thousands of items. The team has been “nibbling away at the edges of the collections”.

In 2008, as an initial experiment with open licensing, Te Papa applied a Creative Commons licence to 21 audio guides for its ‘Rita Angus: Life and Vision’ exhibition.

Since then, applying Creative Commons licences has been a work in progress. Because Te Papa doesn’t always own the copyright to its collections, the process of giving Creative Commons licences can be complex. The team at Te Papa has spent years researching the copyright on its images.

Te Papa itself also produces a vast amount of material. These images have been easier to license: so far, thousands of images in its Natural Environment Collections have been given a Creative Commons licence. Thousands of other works have been labelled ‘no known copyright restrictions’, which lets users know that to the knowledge of Te Papa, the work has fallen into the public domain.

The team has already seen some exciting example of reuse, including posts in Dr David Winter’s *The Atavism*, hosted by Sciblogs.

Other works from Te Papa can be found in its Flickr stream. Te Papa also holds the copyright to a few of the objects in its art collections, allowing it to participate in the Google Art Project.

In addition to its images and artworks, Te Papa produces a vast amount of original research. Like other organisations, Te Papa is confronting the trend towards Open Access. In 2011 researchers from Te Papa published a paper in *Scientific*

Reports on the “slime defence mechanism” of the Hagfish. The researchers licensed the paper Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND), and made it available on Nature.com.

They also released, as the press release put it, “graphic underwater footage showing for the first time how the primitive hagfish – also known as the snot-eel – defends itself by emitting a choking, gill-clogging slime.” Because both the paper and the footage were available under an open licence, the findings were covered by news organisations like TVNZ and Stuff.co.nz.

There are also issues of moral rights, cultural rights and ‘orphan works’ – those works that are still under copyright but that have no obvious copyright owner. Victoria and others at Te Papa are working on addressing these issues, while respecting the rights of those who donate their collections.

Te Papa has now made over 45,000 images freely downloadable from its Collections Online digital database, giving the public access to the highest-resolution images it can and opening the way for creative reuse.

Some of these images are no known copyright but many have been licensed under Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licences. Releasing images of the collection for download is now a core part of the workflow of copyright assessment for Victoria. “It’s no longer a one-off project. It’s now a business-as-usual activity and providing the highest-resolution image file we can means much wider scope for potential reuse.”

Victoria's philosophy throughout has been one of incremental change: "let's iterate!" She says "GLAM professionals tend to be completionists, even perfectionists, and this isn't a project you're ever going to be able to 'finish'. One of the big messages I'm always trying to get across is to start with what you can do now, at the foot of the mountain. Don't worry about what's at the top. It might get solved as you go and, if it doesn't, you can better concentrate on solving it when you get there."

The project's launch in June 2014 generated a lot of positive feedback for Te Papa, both nationally and internationally. There was a significant visitation spike to the Collections Online site. Minister for Arts, Culture and Heritage Chris Finlayson has recognised Te Papa's efforts and said: "These images from the national collection are a fantastic resource for New Zealanders. The Government's Open Access Licensing Framework cuts red tape, allowing the public to share and enjoy these thousands of images freely, as well as making them more readily available for use by professionals in the education, historical, cultural and creative sectors."

"Another benefit of this work is the internal efficiency savings." Victoria noted that Collections Online is used heavily by Te Papa's own staff, and the new, clearer copyright and open licensing statements mean less confusion, less worry about inadvertently doing something illegal, and significantly less time taken up processing rights requests and queries. "Staff can cut straight through the necessary copyright bureaucracy

and just do it themselves if they need an image for a sign, say, or an e-newsletter.”

But of course the main benefit is the creative and collaborative potential that freely available public domain or out-of-copyright and CC-licensed works bestow. One example close to home is the creation of a new artwork for the Ngā Toi Arts Te Papa exhibition: *Knowledge on a beam of starlight*, a vinyl work by Kerry Ann Lee using found images. With Te Papa’s permission Lee used images downloaded from Collections Online in her artwork.

So what’s next for Creative Commons at Te Papa? “Now we need to analyse the results so far, so that we can keep improving.” Victoria wants to learn how people are using the images, and what effect the freely downloadable content is having on Te Papa’s image licensing business. She is also very focused on spreading the word, and making sure that Kiwis know that their cultural treasures are emerging into the free digital domain. “Creative Commons is still really early days in New Zealand. We want people to know what’s available and how they can use these incredible treasures.”

The National Library's Use and Reuse Policy

On 20 May 2014 the National Library of New Zealand Te Puna Mātauranga o Aotearoa published its use and reuse policy. In nine overarching principles, the policy aims to provide clarity and consistency around the use and reuse of the National Library's collections.

In line with international 'open GLAM' (galleries, libraries, archives and museums) recommendations, principle four advises that "negotiations with rights owners and donors will promote and be informed by the Creative Commons licensing framework as a mechanism to facilitate use and reuse of in-copyright works".

Principle five states: "Where no copyright restriction applies, the National Library will seek to provide the items for use and reuse with a statement of 'no known copyright restrictions', after careful consideration of cultural and ethical issues relating to the items."

Other principles address the use of appropriate resolution size, the Government's Open Access and Licensing framework, and the treatment of 'orphan' works.

Mark Crookston, Digital Collection Strategy Leader at the Alexander Turnbull Library at the National Library, first drafted the policy in early 2013.

As he points out, "The purpose of the policy is to be able to have a consistent framework across the National Library for all of our reuse activities, from supply to management to delivery.

“On the supply side – such as our negotiations and agreements with publishers and donors – the policy attempts to clarify what we say about reuse, and the metadata we use, as early in the process as possible. On the delivery side, the policy covers clear and consistent statements, resolution, and also trying to get the National Library to have more items available under ‘no known copyright’ restrictions.”

Mark notes that the initial conversations between the institution and the donor are critical, as this is where conditions around the reuse of collections’ items are formed. These conditions “flow through the entire life of the collection while it’s with us, which is in perpetuity,” he says.

This is why principle four advises that “negotiations with rights owners and donors will promote and be informed by the Creative Commons licensing framework”. As part of the implementation of the principle, the National Library is likely to add a Creative Commons tick-box on the donor form, and provide donors with a range of explanatory resources. Donors will retain the right to restrict access to their work, if they so choose.

The passage of the use and reuse policy took around 18 months. “It was a series of conversations. It was important that we took our time and listened. The different perspectives in society around use and reuse – which can be a relatively contentious issue – also exist in the National Library itself. As an institution, we just talked our way through these issues.

“As a collecting institution, we managed to get a general agreement as to the purpose of what we do: we develop

collections, and make them accessible (including through digitisation), because we want people to use them. It was important to clarify that the accessibility and use concepts were different. That was a critical point for moving forward with the policy work.”

Now that the policy has been adopted, the National Library is working to implement its principles.

“We’re now establishing our process for the ‘no known copyright’ test, supporting principle five in the policy. We have a process to identify which collections go through the test, which includes considering any cultural or ethical reasons to restrict reuse – but still provide access.

“A lot of great people in the National Library have worked hard to determine those cultural and ethical criteria. Some of this work is challenging those criteria, but it’s also reaffirming some of them. We haven’t yet determined all of the reasons to restrict reuse on a cultural basis, though the idea with the ‘no known copyright test’ is that we’ll be able to determine some of those criteria as we go.

“We’re also developing procedures to follow when some works are reused in a way that goes against the restrictions set by the National Library or by donors. This goes to that amorphous issue of trust.”

The National Library is also undertaking to map the array of restrictions placed on works by its donors over the years, to ensure that online users are always made aware of these restrictions, while at the same time aiming for clear and

consistent rights statements across the National Library's collections.

As Mark says, "It sounds simple but there are a lot of current, past, and future permissions and rights statements we have to be able to reflect, cutting across sizeable and diverse collections, in different systems with differing technological capability."

The National Library policy follows the release of around 45,000 high-resolution images by the Museum of New Zealand Te Papa Tongarewa, under either a Creative Commons licence or a no known copyright statement.

Mark believes that other collecting institutions are likely to follow in the footsteps of Te Papa and the National Library – and other international institutions like the Rijksmuseum – and is curious to see which approach other institutions take.

"While Te Papa and the National Library share the same objectives – i.e. getting no known copyright images in high resolution available online – our approaches have differed slightly. Te Papa's approach is more to release large numbers of images in order to demonstrate value, which is great, they've done a magnificent job. On the other hand, the National Library took more of a policy approach to get our thinking and framework in place before implementing. I think both are relevant. It will be interesting to see how these approaches play out and what other institutions do. I think both Te Papa and the National Library have demonstrated useful paths forward."

Opening New Zealand's World War One Photography

New Zealand officially commemorated the centenary of the outbreak of World War One with both a 100-gun salute and a field of 100 white crosses on the Parliamentary lawn. In addition to this, much of the New Zealand GLAM sector – that's Galleries, Libraries, Archives and Museums – has marked the centenary, both for its own sake, but also to draw attention to the depth and quality of our local heritage collections. The hub for these efforts is the WW100 website, which provides a range of resources, including a new search filter for World War One materials.

Part of the promise of the centenary is to help remind New Zealanders that this is their history: regardless of whether one had family members in the war – or even had family members in New Zealand – the war shaped the kind of place that Aotearoa became.

And if the events are part of New Zealand's common heritage, then so too are many of the works from that era. Recognising this, some of the largest organisations in the local GLAM sector have been working to ensure that the most significant heritage items from the war are made openly available to everyone, free of all technical, price and legal restrictions.

A particularly interesting example of this is the work of the Alexander Turnbull Library (ATL) – in tandem with organisations across the culture and heritage sector – to release the H series of World War One photographs.



The H series are photographs taken by Henry Armytage Sanders, and they are, as Melanie Lovell-Smith points out, “the most comprehensive visual record of New Zealanders on the Western front from 1917 to 1918”. As Lovell-Smith says, before 1917 New Zealand didn’t have an official photographer – due to the expense – which means that the only photographs before that date were those taken by the New Zealand troops themselves.

The ATL has released digital reproductions of these photographs in high resolution, with clear ‘no known copyright’ statements. This means that anyone, anywhere, can view, share, download and reuse the official record of New Zealand in World War One, without asking permission or paying a fee.

This follows the passage of the National Library of New Zealand Te Puna Mātauranga o Aotearoa’s Use and Reuse policy, principle five of which asserts that “Where no copyright restriction applies, the National Library will seek to provide the items for use and reuse with a statement of ‘no known copyright restrictions’, after careful consideration of cultural and ethical issues relating to the items.”

While the release of the H Series is very exciting, it is just the latest in a run of Open GLAM developments. Beyond the publication of the National Library’s open policy, Te Papa has also released over 45,000 open images under high resolution. Some of these are made available under a Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licence; others have been released without any copyright restrictions whatsoever.

These content releases and open policies will surely be the first of many. There are hundreds of heritage institutions in New Zealand, with many millions of high-quality works. As these works are digitised – as they have been for the last 15 or so years – it's important that they are released as free of price, technical and legal restrictions as possible, so that as many Kiwis (and overseas visitors) as possible can access and engage with works from their own heritage.

As was noted in some of the preliminary discussions behind the release of the H Series, New Zealand's culture and heritage sector does not have clear, standardised rights statements, and sometimes imposes additional price, legal or technical restrictions on the reuse of heritage works. Thomasin Sleight, Community Manager of DigitalNZ Ā-tihi o Aotearoa and the Kiwi representative on the Open GLAM Working Group, tells us that heritage institutions will need to adopt clear policies and processes to be “clear, consistent, and open with our cultural collections”.

Canterbury Earthquake Digital Archive

UC CEISMIC is a federated archive of materials from the Canterbury earthquakes, hosted by the University of Canterbury Te Whare Wānanga o Waitaha, which launched in November 2011. With content provided by major New Zealand cultural institutions, such as the Museum of New Zealand Te Papa Tongarewa and the National Library of New Zealand Te Puna Mātauranga o Aotearoa, as well as ordinary New Zealanders, the archive is an extraordinary – and extraordinarily open – digital resource.

The idea for the archive began when Associate Professor Paul Millar from the Department of English at the University of Canterbury approached Dr James Smithies, then working at the Ministry of Health Manatū Hauora, about what he could do in response to the February 2011 earthquakes.

James pointed Paul to the 9/11 archive, organised by the Center for History and New Media at George Mason University. They also considered the Hurricane Memory Bank, a project designed to collect and preserve stories from hurricanes Rita and Katrina. Paul pitched the idea to the university's senior management team and received a very positive response. He immediately began tireless work to get James down to Christchurch and turn the idea into reality.

With these projects in mind, James and Paul considered how they might build something similar for the Canterbury

earthquakes. As James put it, the team soon decided that they “would just go out and collect everything.”

Dr Christopher Thomson, Programme Office Manager for UC CEISMIC, outlined the steps James and Paul had to take to get the archive online.

“They put a proposal to the university and got some funding to set something up. From there, they started to have conversations with people across the cultural heritage sector, and saw that lots of people were asking the same kinds of questions about an archive for the Canterbury earthquakes. They then decided to set up the UC CEISMIC consortium.”

The UC CEISMIC consortium is led by the University of Canterbury and made up of organisations from across the cultural heritage sector, including Archives New Zealand Te Rua Mahara o te Kāwanatanga, the National Library of New Zealand, the Ministry for Culture and Heritage (MCH) Manatū Taonga, the Canterbury Museum, Christchurch City Libraries Ngā Kete Wānanga o Ōtautahi, NZ On Screen, the Ngai Tahu Research Centre, the Canterbury Earthquake Recovery Authority Te Mana Haumanu ki Waitaha, the Museum of New Zealand Te Papa Tongarewa, and Ngā Taonga Sound and Vision.

Christopher says, “The idea was that each of the consortium members would collect their own material and archive it according to their own policies, and then use DigitalNZ to surface it in one place, so that users could search for earthquake-related content at ceismic.org.nz.”

So where does Creative Commons come in? Given the ambitions of the project, in these early stages “Creative Commons wasn’t in the mix”. Later, though, James began to introduce the idea of open licensing.

James had been a Creative Commons supporter for years, had strong support from Paul to investigate Creative Commons licences, and was offered excellent advice from Jason Darwin at CWA New Media (later Learning Media Limited). He understood the problems ‘all rights reserved’ copyright can pose for heritage projects and soon found there were issues having multiple licensing agreements across different sections of the project.

The problem was handed to Christopher Thomson when he arrived in the team. However, little progress could be made, despite his best efforts and those of a range of stakeholders. The problem was most difficult with research-oriented data, which had specific issues related to ethics and privacy.

In the end, when approaching potential depositors, the UC CEISMIC team recommended the use of Creative Commons licences, though remained open to more restrictive licensing agreements, according to the specific needs of content providers.

The archive launched in November 2011, with 10,000 items, and continues to grow.

The University of Canterbury’s specific contribution to the consortium is called UC QuakeStudies, and includes materials from Fairfax Media, Environment Canterbury Kaunihera

Taiao ki Waitaha and Heritage New Zealand Pouhere Taonga. While much of this content remains ‘all rights reserved’, the archive has added a collection by Murray Quartly, who runs focus360.co.nz.

After the earthquakes, Murray took a series of 360-degree panorama photographs of central Christchurch, producing what Christopher describes as a “virtual tour of the Red Zone”. After meeting with the UC CEISMIC team, Murray decided to release the photos under a Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licence.

Another significant part of the consortium is QuakeStories, which is run by MCH. This archive contains stories and photos of the earthquake from ordinary New Zealanders, and is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence.

Both Christopher and James suggest that the biggest hurdles to using Creative Commons licences have come from researchers – especially those working through the University’s ethics committee, which is already a complex process.

The UC CEISMIC team continues to encourage their partners to use open licensing wherever possible, and Creative Commons licences remain a core part of the UC CEISMIC programme.

Christopher says, “We don’t really know how people are going to use our content. It makes sense to make it open wherever possible, because we don’t know what research questions and methods will be like in 100 years’ time. We want to leave that open as far as possible, for the future.”

NZ On Screen and Audio Culture

NZ On Screen has provided online access to a wealth of New Zealand film, television and music videos since 2008. From the outset it has used a Creative Commons Attribution-NonCommercial (CC BY-NC) licence for all the work on the site where the copyright is owned by NZ On Screen. While the video content often belongs to third-party rights-holders, all the synopses, backgrounds and biographies relating to videos and people are licensed under CC. This material is impressive in its scope and quality; the introductions to the collections, particularly, are personable as well as thorough.

Clarion Coughlan, former Project Director, says their aim is not to put everything they possibly can online, but rather to choose culturally significant pieces and give them space to talk to each other.

NZ On Screen is a curated website, carefully chosen and added to, and the context provided by the written material is crucial. Clarion says, “rather than just publishing videos, we contextualise them through our writing. As NZ On Screen has been paid for by taxpayers (via NZ On Air funding), it makes sense to make that writing available under Creative Commons: to give something back.”

Having that CC-licensed work reused also serves as a useful advertising tool; when writers reuse their pieces on blogs or have them published elsewhere, and actors’ agencies reuse what is effectively a pre-written biography, the Creative Commons licence brings people back to the NZ On Screen website.

Perhaps due to the popularity of NZ On Screen, May 2013 saw the launch of a sister project, AudioCulture – the ‘noisy library of New Zealand music’. The site aims to address the ‘digital silence’ that has surrounded New Zealand music online, and to collect together the stories, multimedia and ephemera that have contributed to New Zealand music from the last 100 years.

AudioCulture kicked off with 250 pages of people, labels and scenes, all under searchable indexes, plus music, interviews and photographs, with another 300 pages following in the second year. It was very well-received, gaining 25,000 page views in its first month live, and continues to grow.

Following the successful formula employed over at NZ On Screen, the music on the site is licensed by PPNZ Music Licensing and APRA/AMCOS and the images have been cleared with copyright owners, but the written content in Profiles, Stories, Labels and Scenes all falls under the Creative Commons Attribution-NonCommercial (CC BY-NC) licence. Like the written content on NZ On Screen, these pieces are not brief introductions; they are well-researched and in-depth, written by a wide variety of contributors, often with a personal connection to the subject, providing an extraordinary depth of context.

Ministry for Culture and Heritage

The Ministry for Culture and Heritage Manatū Taonga (MCH) is dedicated to supporting New Zealand's arts, media, heritage and sports organisations, including Creative New Zealand, the New Zealand Symphony Orchestra, RadioNZ and many more.

MCH also produces a range of public resources, including Te Ara The Encyclopedia of New Zealand and New Zealand History Online Ngā Kōrero a Ipurangi o Aotearoa. Since 2011, the text for both of these sites has been licensed under a Creative Commons Attribution-NonCommercial (CC BY-NC) Licence.

Matthew Oliver, Manager of the Web Team at MCH, says, "We recognised that the taxpayer has paid for this content to be developed, and were aware of plans around NZGOAL, and we saw our content as part of that."

NZGOAL is the New Zealand Government Open Access and Licensing framework, which encourages public sector agencies to use Creative Commons licences, to enable the public to share, remix and reuse publicly funded content.

The team was happy to fulfil the principles of NZGOAL, as they had already recognised the importance of disseminating their content. "The more we could get our content used, the more we justify our work. By making our content available for reuse, we show that our content is important, that there is a need.

"The sticking point came down to what sort of licence we'd adopt, which is why we ended up using the NonCommercial licence. We had to consider authors' rights, publishing and

licensing deals. We were also sensitive to authors, who often work for very little or for free.”

Matthew believes that Creative Commons licensing could help to reduce some of the duplication that occurs in the cultural sector. “If one organisation is good at storing images, and another is good at writing stories about images, let’s combine them, rather than repeating each other’s work.

“It’s great that the cultural sector is starting to share each other’s work, but we should also be sharing it with the public. This ties into the Government’s commitment to supporting innovation. There are some great New Zealand companies who would love some good content. We’ve got content. It’s there. With Creative Commons licensing, they can use it.”

Without Creative Commons licensing, some innovative and important projects may suffer in quality, or never get off the ground. “You just don’t know what people will do with this content, if they could get hold of it. If you make the content available, someone with more time and more expertise is going to do something that a government organisation can’t do.”

Researchers also benefit from open licensing, as it simplifies the process of clearing picture rights. “We also don’t know how much time this is adding to their research, and what they’re deciding not to use.”

Matthew hopes that culture and heritage institutions will continue to open up their collections. “I’m inclined to start from a default position of everything should be open, and let’s see where the problems come up. There’ll always be problems



– privacy, donor agreements, WAI262 – but the vast majority of content isn't affected. Start from the other direction.

“If you lock your content away, nobody knows about it. Forget advertising. You don't need an advertising budget if you let your content go out there and speak for you. If your image goes out there, and it's got a link back to your website – and if somebody finds that content useful and spreads the word about it – you're getting free advertising. You're letting the asset that you've got go and promote you as an organisation.”



Open ReSearch



Open Access to Research in Aotearoa

By Fabiana Kubke, Senior Lecturer at School of Medical Sciences, University of Auckland Te Whare Wānanga o Tamaki Makarua, and Matt McGregor, Public Lead, Creative Commons Aotearoa New Zealand

Access Denied

Stop me if you've heard this one before. You're researching an issue that you care about and find a link to an important study, a study that promises to give you greater insight about the subject at hand.

Let's say you're interested in geology, and the article is in the *New Zealand Journal of Geology and Geophysics*, published (with public funding) by the Royal Society of New Zealand Te Aparangi. It also happens to be co-authored by a researcher from one of New Zealand's publicly funded research institutions.

You click on the link and find yourself faced with this message: "Sorry, you don't have access to this article." You are asked if you want to purchase the article – for a grand total of USD\$48 (or AUD\$146 for the whole issue).

That, for most people, is the end of the process. It doesn't matter whether you are a businessperson, a policy-maker, a journalist, a curious member of the public, a student or an independent researcher – you'll need to pay to get access. And if you can't pay? Well, tough.



An Untenable Situation

If you work or study in a university or research institute, you might not know that this is a problem – or maybe you don't think it's a problem for you.

But before you make up your mind, consider this: the research sector pays over \$50 million on subscriptions to academic journals. That's about the same amount allocated to support research by the Marsden Fund.

More to the point, that \$50 million doesn't pay for all published research. University libraries, faced with flatlining budgets, are having to decrease the number of journals they can provide access to.

And if you aren't yet convinced that this is a serious problem, consider this memo from the Faculty Advisory Panel of Harvard University, which stated that the cost of journal subscriptions was “an untenable situation” and that steadily increasing subscription charges had “made the scholarly communication environment fiscally unsustainable and academically restrictive”.¹

How could something as fundamental to the life of a university as journal subscriptions – that is, access to knowledge – become “fiscally unsustainable” to the richest university on the planet?

As it turns out, this issue has been bubbling away for some time. In 2004 the Association of Research Libraries in the US revealed that the average cost of a journal subscription had risen 315% from 1989 to 2003 for its member libraries – that's

¹ <http://isites.harvard.edu/icb/icb.do?keyword=k77982&tabgroupid=icb.tabgroup143448>

compared to a rate of inflation of only 68%. Since then journal prices have continued to rise by 9% per year.²

The Public Interest

Academics, then, don't often have immediate access to the research they need, and it continues to cost more and more just to maintain the access they currently have. But for those who work outside the research sector, the current system is even worse.

Journalists, for example, are often unable to go beyond press releases when covering science. As Peter Griffin, Manager of the New Zealand Science Media Centre, says, "Newsrooms today don't have the resources to subscribe to academic databases that would be useful in the process of generating news content. For journalists, this can be extremely frustrating."

Similarly, non-government organisations (NGOs) and policy-makers often lack access to the latest academic research, as do the individuals and groups that contribute to the policy-making process.

Lillian Grace, Chief Executive of Figure.NZ, notes that open access to research will enable Aotearoa to get more from its publicly funded research. She says, "The value realised from publicly funded research will be hugely increased by making it open for others throughout our country to learn and apply findings to business, social, economic and environmental endeavours."

2 www.openoasis.org/index.php?option=com_content&view=article&id=254&Itemid=256



Siouxsie Wiles, Senior Lecturer at the University of Auckland Te Whare Wānanga o Tamaki Makarua and recipient of the Prime Minister's Award for Science Communication, notes the broader public importance of Open Access. "Science can empower people to make informed choices that shape their future for the better. This is the message I want to communicate and why I believe unrestricted access to the science we fund is in everyone's best interest."

The Growth of Open Access

The basic definition of Open Access is simple. As Harvard University Librarian Peter Suber puts it, "Open Access literature is digital, online, free of charge and free of most copyright and licensing restrictions." The basic principle of Open Access is also simple: namely, that everyone should be able to freely access and reuse the research outputs that are the result of public funding. This includes everything from books and journal articles to research data.

There are two basic models for enabling access: either the publisher makes the research article available, sometimes for a fee (the 'gold' model); or the researcher deposits an accepted version of the article in an institutional or discipline-specific repository (the 'green' model). There are currently over 700 funders and institutions across the world with Open Access policies.

Four New Zealand universities (Lincoln, Waikato, Canterbury and Auckland) have policies in support of 'green'

deposit, with Lincoln University's policy also including teaching resources and encouraging the use of Creative Commons licences.

One of the world's leading research institutions, MIT, has had an open research policy since 2009 following a unanimous faculty vote, and they've been collecting stories from the members of the public who have benefitted. Their stories are a powerful reminder of why Open Access is essential.

A private researcher from Australia, for example, writes, "[I am] a disabled engineer researching gravity and inertia... My research is hampered by one thing alone, paywalls."

A student in India points to the barriers that exist in developing nations: "It's really disheartening when a site asks for money to display their research work. This initiative will...accelerate research in the emerging nations."

A researcher from the US notes the importance of Open Access to economic development: "I'm attempting to hire and fund research in energy production. I have a lot of trouble getting to the bottom of scientific understanding due to the publishing industry paywalls. MIT's effort to make good science that the public helped pay for be available to the public has helped me a lot building the clean energy economy."

Make It Open? No, Make It Libre!

My institution – the University of Auckland Te Whare Wānanga o Tāmaki Makaurau – like other academic institutions around the country, has an Institutional Repository (IR). It is called



'Research Space' and I suspect many of my colleagues might have never heard of it, and many might not know how to make use of it.

As we've pointed out above, Open Access is usually described as gold or green. I don't personally find this distinction palatable, because the gold/green definition says more about mechanisms of delivery and less about liberties for reuse.

I prefer to think about free Open Access (where the article is provided free of charge) and libre Open Access (where the article is provided free of charge and there are few restrictions for reuse and repurposing). The copyright agreements we enter or the licence we choose when publishing Open Access defines where in the free-libre spectrum the article will sit.

If we wish to communicate our findings as widely as possible, shouldn't we be opting for libre Open Access, where they can be reused, redistributed and repurposed?

"Limiting Potential Readership Does Not Increase Actual Readership"

Unfortunately, research publications do not solely serve the purpose of communicating our findings. They are also perhaps the most important contribution through which our worth as academics will be measured when we apply for a job, apply for promotion, or seek to be granted tenure. We may be forgiven many things by staffing committees, but never a poor publication record. We have been taught that how we brand



our publications (i.e. where we publish them) will be a major factor for that assessment.

It is not surprising, then, that most of us will feel the need to do our best to place our article in the better branded journals. Many of these will charge hefty Open Access fees, but will publish our article sometimes at a lower price or free of charge if we are willing to give our rights as authors away to them. Because this decision of where to publish is so intricately tied to career progress, the cultural inertia is hard to overcome.

These days, it is rare that I will find someone who doesn't think that Open Access is 'a good thing' (progress!). As soon as the term 'Open Access' enters the discussion, however, I can see the \$-shaped tears rolling down someone's cheeks. Most frequently the discussion veers towards a standard list of 'buts'.

Many of these 'buts' are myths that seem to persist even in the face of evidence against them. Once someone has the mindset that Open Access is not a 'viable' alternative to be embraced by them, by their immediate community of practice or even by their institution, it does not seem to matter how much data is presented – the response will inevitably be “Oh, ok. [pause] But...” If we cannot change scientists' minds when confronting them with evidence, how will we be able to persuade our agencies and institutions? Until we overcome our apprehensions about Open Access, should we just stick to the status quo?

Institutional Repositories (IRs) provide a place where authors who choose to publish in the traditional way can

deposit their peer-reviewed, accepted article for anyone to access free of charge – and thus massively increase their potential readership. All the authors need to do is to contact their librarian and they will happily show them how to do this. In New Zealand, articles that are deposited in these IRs are given a second life, free of paywalls and indexed by Google. In New Zealand the articles (and other research artifacts) are aggregated in <http://nzresearch.org.nz/>.

I can't help wondering whether, if we were asked to identify at our annual performance review (or continuation, or promotions) the proportion of our output that was deposited in IRs, we might see some progress.

My personal position is that research outputs that result from public funds should be made available under a copyright licence that minimises the restrictions on distribution and reuse. I also understand that authors may base their choice of where they publish on different kinds of reasons (some of which I understand and others of which I don't). But even when authors choose to publish under traditional pay-walled schemes, the value of depositing in the IR far outweighs the reasons not to do so.

As Björn Brembs put it, “No matter what field (or planet): limiting potential readership does not increase actual readership.”³

3 <https://twitter.com/brembs/status/354486926562181120>

ePress: Open Access Publishing at Unitec

ePress is an Open Access scholarly publishing house at Unitec Institute of Technology Te Whare Wānanga o Wairaka. It works from the philosophy that the global political economy is one of the key barriers to human social process. Information should be free and not a market commodity with a profit attached to it.

Evangelia Papoutsaki, Editor-in-Chief, says, “At ePress we believe that knowledge should be accessible to all. Academics are paid by taxpayers to research and produce knowledge, and the idea that students and the general public must pay for that knowledge does not sit well with us. It should be available to anyone who has the desire to read and use it. Citizens have the right to learn; access to information and knowledge should not be through their wallets.”

ePress is an online, quality-assured, in-house publisher for authors and researchers working at, or associated with, Unitec. As well as there being research produced at Unitec that needed a publishing home, there were other outputs such as performances, mixed media, design and art installations that all had potential as non-traditional publications.

The idea of ePress emerged out of a desire to harness the publishing potential of all these outputs by providing a platform from which they could be shared. Launched in late 2011, ePress started off with the more traditional conference proceedings and reports, and quickly grew to embrace

eMedia and books. In 2014 ePress really hit its stride with the publication of two books, *Press, Politics and People in Papua New Guinea 1950–1975* by Philip Cass and *Ngā Reanga Youth Development Māori Styles* by Josie Keelan; an edited collection, *Communication Issues in Aotearoa New Zealand* edited by Giles Dodson and Evangelia Papoutsaki; two wonderful eMedia, *Rosebank: Cabbages, Horses and Science* by Paul Woodruffe and *The Moveable Feast Collective Teach Design* by Susan Jowsey, as well as publishing conference proceedings for the 31st Annual Society of Architectural Historians Australia and New Zealand (translation edited by Christoph Schnoor).

At the beginning of 2015, ePress unveiled new layouts and cover art for their regular series, launched a new series titled *Perspectives in Biosecurity Research Series* edited by Dan Blanchon and Mel Galbraith, and announced the production of a forthcoming collection titled *Conceptual Works in Sports Studies*, edited by Lesley Ferkins and Mieke Sieuw.

The academic perception of Open Access scholarly publishing has definitely changed over time. It used to be very much one of scholarly snobbery. If your work wasn't in the right journal, or published to certain standards, it was of no merit to academia. However, things are changing, and fast. The methods for producing knowledge are changing and so too should our method of dissemination. More and more scholars are accepting and embracing the idea that there are other ways to prepare, produce and disseminate information. ePress has a strong focus on eMedia publications and they are a great example of alternative ways to share that knowledge. With these methods

have come new researchers, authors and producers who believe that Open Access is the way forward for them. This new way of thinking is producing some truly fun and unique publications that might not have found a home anywhere else. More traditional publishers would not have been able to control their distribution and make a profit.

When authors submit to ePress their processes are explained along with the Creative Commons licensing system.

“We automatically assign new publications with the Creative Commons Attribution-NonCommercial (CC BY-NC) licence and give authors time to investigate the other licences, should they wish to change,” says Evangelia. “The response to the licensing, and the one we auto-select for them, has been well received by all of our authors. For those who are new to Creative Commons, they have really embraced the goals of Open Access publishing – though they are publishing with ePress so to an extent they are probably Open Access supporters already!”

Anatomy Teaching Model Patterns Licensed with CC

Using her background in fashion and design, Fieke Neuman, Teaching Laboratory Manager, Department of Anatomy Te Tari Kikokiko, University of Otago Te Whare Wānanga o Otago, has created anatomy teaching models of various human body parts using fabric, metals and other materials. She has released the patterns for these models under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence.

It started at the December 2012 combined Australasian Institute of Anatomical Sciences/Australian & New Zealand Association of Clinical Anatomists (AIAS/ANZACA) conference in Coogee, where Fieke gave a talk about some fabric models she had made for teaching anatomy. She promised to send the patterns to people she'd talked to at the conference, once she'd sorted out copyright issues.

She had known of the University of Otago's policy regarding intellectual property for decades, without considering that it would ever apply to her. The policy meant that Fieke couldn't copyright her work without the permission of the university.

She raised the issue with her colleagues in the Department of Anatomy. They briefly discussed the possibility of selling the patterns but decided that they would get more benefit, as a department, by sharing them. They recognised that it would require quite a bit of time, money and effort to set up a system to sell such items – more than it would be worth. Fieke has run

a fashion business in the past and knew how difficult it would be to make sales to cover all of the costs involved. They also saw the benefit of strengthening bonds with their community by being generous and not hiding away information that others could use. Sharing meant using Creative Commons but it also meant getting formal permission from the University to give away the standard copyright. So, in 2013, Fieke got permission from her Head of Department and he wrote to the Pro-Vice-Chancellor of Health Sciences who also gave formal permission.

They chose the CC BY-NC-SA licence as it allows others to remix, tweak, and build upon their work non-commercially, as long as they credit the originator and license their new creations under identical terms. It suits the spirit of the scientific and teaching community of which they are a part.



Canterbury's Mandatory Research Deposit

By Anton Angelo, Research Data Coordinator, University of Canterbury Te Whare Wānanga o Waitaha

In 2014 I had an email discussion with the developer for our university research information system. My request was to make a file upload field required rather than optional. It, in the scheme of things, is a tiny change – a couple of lines of code in an application that is going to be used by a few hundred people at a medium scale university.

In this case though, the change that this represents is huge. It is the bleeding edge of a change in the way that we understand intellectual property, and realigns the academy with its original intention of being a university.

Canterbury, like well over 200 other universities, is adopting an 'institutional mandate' for depositing research into its Institutional Repository (IR). We have purposefully kept the word 'mandate', as the implication of imposing something on scholars provoked the discussion we wanted – positive engagement with what we were proposing. In reality the policy suggests that, in the absence of a good reason, every time a scholar publishes something it should be made freely available, and we provide a mechanism to do that with our IR. If a scholar wishes to opt out, they should feel free, but we're curious to know why.

The small technical change we are making is that we're requiring a copy of a research output submitted for the

Performance-Based Research Fund (PBRF) process to be made available and openly accessible for the entire world, by uploading it to our IR. Currently, University of Canterbury scholars can volunteer to upload articles, and about 8% of our research output is put on the web and openly accessible. By making the file upload field required, we hope to see a tenfold increase in deposits.

As usual, there are historical precedents. The Library of Alexandria had a mandate to take all the books arriving in the port, copy them, keep the originals and return the copies. This way – along with an excellent and aggressive collections budget – the biggest library in the world was created.

Reaction to the suggestion of the policy in the community was interesting. The vast majority of faculty research committee meetings and private conversations ended with, “Why are we not doing this already?” It underscored the importance most researchers seem to place on having the widest possible audience for their work. There were exceptions, usually based on the culture of a particular academic discipline. For example: high-energy physicists (and others) already use a repository, ArXive. Why should they bother with another one?

I admit that uploading things to the IR is a faff for a lot of reasons. For example, because of the copyright most publishers take when they agree to print an article, scholars have to upload a version that is not the final published one. Academics are not always great administrators, and can lose their manuscripts. As well as that, it is an extra button to push, a file to hunt down on

their hard drive, and then, finally, troubling thoughts of “Am I allowed to do this?” can overwhelm all but the most robustly legally minded. That last one – what are you allowed to do with your own work? – is a doozy. A scholar in the humanities admitted to me that on being offered the loan of a book his first thought was, “Is he allowed to loan me that?” So entrenched are our anxieties on copyright that even the thing that lets libraries exist can be questioned by people who should know much, much better.

I make no apologies for the faff, for it is not faff of our making. We pay researchers to do research, and their research needs to be available for that most old-fashioned of reasons: the common good. You can quantify the good all you like in terms of innovation and product development and state corporate bottom line maximisation, but for me the qualitative argument comes first, and looms largest. It’s the right thing to do. So why is it hard? Wherefore the faff? Traditional academic publishers are on a bit of a losing wicket on this one. Made gigantic on the economic imperatives of globalisation and the efficiencies of the library ‘big deal’, they now have profits they are legally bound to protect for their shareholders. Faff is their stock-in-trade as a way of slowing down the opposition – the IR.

Here are a few ways academic publishers try to slow down deposit into IRs:

- Most standard publisher–author agreements allow only an obscure version of the work to be added to the IR.

- They confuse the Open Access (OA) landscape by offering their own version of openly accessible articles, and play divide and conquer with their customers by making the academic pay a charge (often in the thousands of dollars) to publish under an open licence.
- Additionally, sometimes they offer their own 'open' licences, resulting in even greater uncertainty.
- They employ third parties to scour IRs to find material that could be non-compliant, and send threatening letters. Libraries, being excellent corporate citizens, respond to these by removing material.
- Knowing that old data is less sexy data, they require embargoes on the release of IR versions of articles, knowing that makes the IRs less useful.
- As well as this, at least one publisher requires embargoes on IR content only if the institution requires its scholars to submit their research outputs to its IR, an open recognition that IRs threaten publishers' business models.

It may seem with all those tactics that there is a great conflict going on, but there really isn't. It is not a war. The arbitrary exclusions and hoops above are the artefacts of a rapidly changing (and potentially failing) business model. New publishers, like PeerJ, Hindawi and PLoS among many, many others, are simply starting with the assumption that the material will be OA, and they are a low or non-profit business and can undercut the old guard entirely.



At Canterbury we have made a tiny technical change. Instead of asking scholars to volunteer their work to be made openly accessible, we ask why they would not. That little thing signals a mighty change for the availability of new knowledge to the world.



Lincoln University's Open Access Policy

In July 2013 Lincoln University Te Whare Wanaka o Aoraki passed a wide-ranging Open Access policy, becoming the first New Zealand university to do so. Coverage includes research outputs such as data, teaching materials and the university's business records.

The policy states that “as an organisation Lincoln University has a policy position which endorses making content openly and freely available as the first and preferred option”. It goes on to state, “Lincoln University takes a broad ethical position which asserts that if public funding has supported the creation of an idea, research or other content then it is reasonable and fair that it be made publicly accessible.”

The policy also encourages copyright owners “to apply a Creative Commons Licence to their intellectual output to determine how material may be used, reused or repurposed”.

Penny Carnaby, the University Librarian at Lincoln, had been aware of the benefits of Open Access and open licensing since her time as National Librarian at the National Library of New Zealand Te Puna Mātauranga o Aotearoa, where she participated in the Chief Executives' steering group on Open Data and information during the development of the New Zealand Government's Open Access and Licensing framework (NZGOAL).

Approved by Cabinet in 2010, NZGOAL supports and advocates for the uptake of Creative Commons licensing

for copyright works produced or funded by State Services agencies.

From her experience at the National Library, Penny became particularly interested in opening up copyright works produced by the university sector, including journal articles, datasets and educational resources. She also noted the growing importance of Institutional Repositories (IRs) in research libraries around the world as a way of ensuring much greater public access to the intellectual output of an academic institution. Penny had been at the National Library when the network of IRs was established, along with the National Library-managed NZResearch, which uses a DigitalNZ-powered harvester to gather information from research deposited in repositories across the New Zealand research sector and make it easier to find.

Noting the strength of Lincoln's Institutional Repository, LURA, Penny began to investigate what it would take to develop New Zealand's first Open Access policy at Lincoln, in line with other universities around the world. The policy was given strong support from the Vice Chancellor, Dr Andrew West, who nominated Open Access as a business driver for the university in 2013.

This strong institutional support enabled a process of consultation across the university, which gave staff an opportunity to voice concerns before the policy was approved. The university also developed a joint union and management working party, which spent six months working through issues

and developing a final policy that the university community could be comfortable with.

Penny notes that research staff were, generally speaking, comfortable with the principle of open scholarship, as they could see the inherent benefits of Open Access to disseminating their research to a broader audience.

The same was not true of open educational resources, which was a relatively novel concept to most teaching staff. “Academics are generally dual professionals,” Penny says. “Each profession – teaching and research – has different drivers. Researchers are often fundamentally motivated by the desire to see their published works have a broad public impact. We found that the same is not necessarily true of academic teaching resources.

“In the end, we developed an elegant and respectful solution: the copyright to educational resources would remain with the creator, while the university would retain the right to use these resources for the educational purposes of the institution – such as using them as open educational resources in Massive Open Online Courses (MOOCs).”

Penny notes that this process of discussion and consultation was both the most important and most difficult part of implementing Open Access across the university.

In order to support the implementation process, Lincoln held its Open Access Week in July 2013, holding several public events, including a talk by Dr Mark Hahnel, CEO of Figshare, and a debate on Open Access, with the moot ‘Open Access or Open Slather?’.

These events helped expose awareness gaps in the institution which a university-wide implementation group is helping to address.

Penny advises other institutions developing an Open Access policy to “make the policy itself as broad as possible – including not only research articles but educational resources and even public records. Institutions will also need to develop the policies alongside other existing policy settings, such as data management and intellectual property.”

“And then think very carefully about implementation. Implementation is everything.” At Lincoln, this process of implementing the policy has led to – at last count – 87 discrete activities across the university.

“Open Access changes every conversation you have,” says Penny. “Rather than arguing why works need to be open, the focus at Lincoln University is on why certain works need to be closed. This requires a massive cultural shift to take place.”

Open Access at the University of Waikato

On 4 March 2014 the University of Waikato Te Whare Wānanga o Waikato announced the passage of an Open Access mandate, becoming the first university to adopt a direct deposit mandate in New Zealand, and the second university, after Lincoln, to adopt an institutional Open Access policy.

The primary principle driving the adoption of the policy, as stated in its opening line, is that: “Freedom to exchange ideas and to publish acquired knowledge are fundamental to the purposes of a university.”

The policy represents the University of Waikato’s commitment “to the concept of Open Access to knowledge through the deposit of full text of academic publications into the University’s digital repository, the Research Commons, wherever possible”.

The momentum for the policy was established during Open Access Week 2012, when Open Access advocates Fabiana Kubke and Alex Holcombe spoke at a panel entitled ‘An Open Access Mandate for the University of Waikato?’. The panel generated interest in Open Access from the university community, and led to David Nichols, Senior Lecturer in Computer Science, and Ross Hallett, University Librarian, developing a detailed paper outlining the benefits, risks and options for an Open Access policy at the University of Waikato.

In that paper, David and Ross gave the university many different ideas about how an Open Access policy might look.

David says, “We deliberately provided the university with a range of options and wording for the policy. We also made sure that we explicitly laid out the costs and benefits.”

In presenting the policy to groups within the university, David emphasised the importance of the digital visibility of the institution and noted the successful deposit mandate in place for student theses since 2006.

In terms of benefits, David and Ross pointed out the increased download rates and potential citation advantages. They also noted the broader importance of making the university’s research available to society in general, including industry, university alumni and professional groups, such as teachers and journalists.

David notes that higher ideals, such as the need for the public to have access to publicly funded research, were also emphasised during the consultation process. This ties in nicely with the motto of the university “Ko Te Tangata – For the People”, which, in the context of OA, is expressed as the university’s “commitment to disseminating the fruits of its research and scholarship as widely as possible”.

After releasing the paper, it travelled for several months, with David and Ross, through the various committees of the university, a process which enabled staff from every school and faculty to provide comments and raise potential concerns.

One such concern was the question of what happens if infringing material is uploaded to the Institutional Repository (IR). Some academics were concerned about possible liability should they mistakenly upload material for which they do not

have the rights. They were reassured when told that library repository staff would continue to offer a mediated deposit service, checking publisher copyright agreements for potential infringement before adding items to the repository.

The consultation process also provided the opportunity to clarify confusion around green and gold Open Access ('green' Open Access is self archiving journal articles in an Open Access repository; 'gold' is publishing in an Open Access journal), as well as the names publishers give to document versions at different stages of the review process, such as 'preprint', 'postprint' and 'published'.

David noted that it was also important for Waikato to include a waiver in their policy for those publications that may not be appropriate for deposit in the IR. "It was important that the policy wasn't seen as entirely black and white."

Waikato's policy is green Open Access, with no references to gold (or publisher-implemented) Open Access or Creative Commons licensing. David points out, "We've restricted the definition of Open Access for this policy to 'read-only'. The policy doesn't engage with reuse rights at all. These are issues that we may be able to address in future revisions, though it was important that this policy took the simplest first step.

"A general notion of incrementalism was essential to the whole process, especially given the fact that scholarly publishing is a changing landscape, with many moving parts, including requirements from external funders."

This incremental approach followed those taken by comparable institutions overseas, such as Queensland

University of Technology (QUT), which has had a deposit mandate since 2004. David and Ross consulted with QUT during the development of the policy.

“QUT has also made public useful information about the progress of its policy over time, including graphs of the effects on deposit rates. Its model suggested that we needed to take a long-term approach to implementing the policy – there was never going to be an instant change. Progress will be gradual.”

This is one of the reasons Waikato didn’t follow the example of another leading Open Access institution, the University of Liège, which mandates that only works deposited in the Institutional Repository will be considered during internal promotion and review. While this is a good model for increasing the number of works in the IR, it is potentially less helpful for gaining support from researchers.

David is now working with the National Library, Research Office and Information Technology Services to implement a new research information system – called Symplectic Elements – to help reduce the transaction costs of depositing research into the university’s repository.

As David pointed out, while the policy is important, the means of technically implementing the policy must be as smooth as possible. With the new system, the time commitment required by the academic to deposit an article should be no more than the time required to respond to an email request.

The new system will also help Waikato determine the baseline number of Open Access articles currently published



by university staff, which will make it easier to chart progress in the years to come.

Ultimately, David underlines the importance of basing the Open Access efforts at the library. He also advises other institutions looking at Open Access to factor in a lot of consultation and listening to staff. As different disciplines have their own norms and terminology, it's also important to find advocates across the university's various schools and faculties.

David also reiterates not trying to solve all the problems with scholarly publishing in one fell swoop: "The policy is just the first step."



Open Arts and Culture



Open Arts and Culture in Aotearoa New Zealand

By Elizabeth Heritage, Communications Lead, Creative Commons Aotearoa New Zealand

Let's say you're an art student. You've found an artwork online that you want to download, print out and use in your art project. You're not sure who created the artwork, or what that artist might think about you using their work. Do you take a copy? Or look for something else?

It can be difficult to know. Kiwi artists and creators have a problem: copyright law is getting in the way of realising the potential of the internet in creating and promoting their work. Why is this? And what kind of digital copyright culture should we be working towards to best support the arts?

Let's start with what copyright in Aotearoa actually is. Copyright is a form of intellectual property that is granted by the law automatically upon creation of a work. It prevents people other than the creator from making copies of (including adapting, sharing or performing) that work without the creator's express permission. It is unregistered – unlike patents or trademarks, you don't have to apply for copyright; you don't even have to use the little © symbol. And it lasts for a really long time: in Aotearoa, this is the life of the creator plus fifty years, after which point the copyright expires and the work enters the public domain. Copyright laws were originally written to protect the rights of creators in their work and to foster a culture that rewards and promotes creativity,

including protecting the ability of creators to earn money from their works for a certain period of time.

So, for example, at the point at which you publish your artistic work (let's say a photograph) online, the law grants you an exclusive right to control the copying and reuse of that work for the rest of your life plus five decades afterwards. If someone wishes to republish your photograph, the law says they must ask you for permission; that is, they must license your copyright from you, possibly for a fee. The law does not distinguish between commercial and non-commercial reuse: even if someone just wants to put a copy of your photograph in a small community newsletter, the law says they still have to have a licence (i.e. permission granted by you, the creator).

The only exceptions to this rule are under what the law calls 'fair dealing': someone may copy your artistic work for the purposes of research or private study (e.g. they can print it out at home), they may quote from it publicly (if it's a written work) for purposes of criticism or review, and journalists can copy works for the purposes of reporting current events. (There are also special exceptions for specific uses like public administration, libraries and education.) But that's it. 'Fair dealing' has a very specific, narrow technical definition; it does not mean – as the general public seems to increasingly be assuming – that you can copy anything you like as long as you personally feel it's fair. And, unlike the US legal provision of 'fair use', New Zealand copyright law does not allow copying for the purposes of parody or satire.

In practice – partly because the law is so restrictive and potentially complex and partly because making digital copies is just so easy – the general public tends to ignore or misunderstand copyright law. Unfortunately, the reaction of the law thus far has been to crack down, criminalising common behaviour, rather than seeking to distinguish between harmful copying (e.g. piracy) and creative, socially beneficial reuse. We end up with situations where people – including artists, or people who could become artists – are too afraid to create. In addition to this, because one of the fundamental technical functions of the internet is to create copies, digital technology means that copyright law applies to exponentially more day-to-day activities than it ever has before. As anyone who has ever cut and pasted an image online knows (or perhaps doesn't), it's become trivially easy to infringe copyright, which means that lots of us are technically criminals.

All of this massively gets in the way of the extraordinary creative gift of the internet: the ability to access, reuse and build upon the intellectual and artistic history of humanity; to critically and creatively engage with the best that has been thought and said across the world. Not just those works that are available in physical copies in your local library, or have been chosen for you in advance by others – now everyone with an internet connection can access all works that have ever been digitised (and track down works that haven't). The internet has made it easier than ever before for artists to get their work into the world, and has also made it easier for anyone to share

and build upon it. As we have seen, though, at the moment, copyright either criminalises or gets in the way of new (and old) forms of creative practice.

Take gifs, for example. Gifs are a new form of digital art that involve animating and adding to images or video clips. Although based on existing artworks, they are a new and original form of artistic expression. But, because they technically involve making copies of images, copyright law applies. This means that the artist is legally obliged to check the exact provenance, rights status and licence conditions of each image before using it – and this is often almost impossible. Because you don't have to register for copyright, or even write your name on your work in order for copyright to apply, it can be incredibly difficult (and time-consuming) to track down the owner. And because of copyright's long-lasting nature, even images that are several decades old, with long-dead creators, may still be in copyright.

The good news is that help is at hand. Creative Commons open copyright licences were designed to help creators realise the extraordinary potential of the internet. They are built on copyright law and are designed to make the most of it, cutting through the current situation of confusion and constriction. Artists can use these free licences to give a range of permissions in advance to anyone wishing to share or build upon their work, using clear rights statements that everyone can understand. They can also use them to forbid commercial reuse by others, thus retaining an exclusive right to any revenue generated by their works. Crucially, they can also save their works from

entering a kind of post-commercial limbo, for example by choosing to let their work enter the Commons (that is, the pool of cultural and artistic resources available to everyone) after sales have died off.

Let's think more about that aspect of copyright: the fact that it expires, at which point creative works enter the public domain, and become available for everyone to use, reuse or adapt – including artists. It's worth noting that public domain – like fair dealing – has a specific technical definition: works in the public domain are those whose intellectual property rights have expired, or been forfeited, or which never had any to begin with. It does not mean 'anything the public has access to' – and it definitely doesn't mean 'anything you can find online'.

While the length of copyright has increased dramatically over the last century (it was originally just 14 years), its basic purpose remains the same: to incentivise creators to make new works that will, after a period of time, enter the Commons. This temporary nature recognises that, just as it is fair that artists be able to derive commercial gain for the works they create; so too it is fair that society as a whole – including the next generation of artists – benefits from the enrichment of the public domain. Framed in this way, the purpose of copyright is to grow the Commons.

Many creative works have an important first, or commercial, life: the time during which the work is for sale and the artist earns revenue for it, thus enabling them to create further artworks. Many other creative and cultural works, though, are not intended to be commercial in nature. Even for those that

are, the reality is that, for the overwhelming majority of artistic works, this life is very limited. Works are created; copies are sold to the public; some publicity is generated; but soon, partly because of the sheer numbers produced every day, interest dies off. When sales inevitably decline, it stops making commercial sense to keep producing and marketing copies of the works for sale. And then the works enter a sort of limbo, when the artist (or publisher) isn't making the work available or deriving commercial use from it, but copyright law says that – possibly for the next century – no one else can use it either. Suddenly, without anyone intending it to be this way, huge quantities of artworks are buried and lost.

Of equal cultural importance, then, is the works' non-commercial life, sometimes called their 'second' life: their life in the Commons, and of being creatively reused in new ways completely unimagined by the original creator. In order for society to grow and develop, it is vital that we all have access to information about the world around us and knowledge of others' experience – including artistic expression. This is where places like libraries, archives and other record-keeping bodies come in. These are the places that keep works alive long after their commercial potential has been exhausted. Importantly, they are also places where people who can't afford to purchase the works can still access, learn from, and be inspired by them.

So far, we've just been discussing creative works produced by individual artists, with copyright that is privately owned. But what about state-funded creative works? TVNZ programmes, for example? Currently, most of New Zealand's



publicly funded or publicly housed cultural heritage is unavailable for reuse by Kiwis. Despite ongoing digitisation projects, these works are neither commercially available nor publicly reusable. This means that creators who want to build on the works of the past – from student filmmakers to non-profit documentary producers – are either forced to reinvent the wheel or go through a difficult process of asking permission, even when the original works are publicly funded and publicly housed and its creators are long deceased.

A better system would ensure that publicly funded copyright works were, after a period of time, made publicly available under an open Creative Commons licence. This would provide a window of time for works to be commercialised, while ensuring that older, no longer commercially viable works were able to be shared and reused by the New Zealand public – effectively giving publicly funded culture a second life.

Artists and creators are increasingly turning to Creative Commons copyright licences – especially online – because they provide an easy and legally robust manner to declare what kinds of copying and reuse the artist permits, and which they do not. There are both philosophical and practical motivations for this: artists want to participate in the Commons, and they also want to harness the power of the internet to get their works to their audience. In an increasingly crowded marketplace, obscurity is a bigger problem than piracy.¹ The Creative Commons Attribution-NonCommercial (CC BY-NC)

¹ Tim O'Reilly, Piracy is Progressive Taxation, and Other Thoughts on the Evolution of Online Distribution www.openp2p.com/pub/a/p2p/2002/12/11/piracy.html

licence is particularly popular – this means that casual reuse is permitted, which helps spread the word, but commercial reuse is not, which helps protect the artist's revenue.

Part of expecting people to respect your copyright is to respect the copyright of others – and here again, Creative Commons can help. There are now hundreds of millions of openly licensed artistic works online, which means that artists have an extraordinary pool to draw from when creating their own remix artworks, from digital collages to electronic music sampling to meme-worthy gifs. Google now allows you to search by licence condition, so artists can seek out and use resources online, confident that they are acting legally and are respecting the rights choices of their fellow artists. The rise of Creative Commons as an everyday part of internet culture also means that everyone gets used to checking the rights status of a work and obeying the licence conditions, rather than seeing 'All Rights Reserved' and just choosing to ignore it because it's too hard. Everybody wins.

This part of the book examines some of the ways Kiwi artists are using Creative Commons to navigate the complex terrain of copyright in the digital age. Keep reading to learn why, what benefits these are bringing, and how you can enjoy some wonderful homegrown talent.

Illustrating with Creative Commons

By Judith Carnaby, Illustrator

I first became aware of Creative Commons through reading about Lawrence Lessig and his work. The more I read about the development of Creative Commons and the copyleft movement, the more interested I became in the Creative Commons licences as a less restrictive and more inclusive way to license my work.

My first illustrations published under a CC licence were for Sam Muirhead's 2013 Year of Open Source swimsuit calendar, created as a part of his crowdfunding campaign. My illustrations for the calendar were of the heroes and heroines of Free Software, Open Hardware and Free Culture, depicting some of the people who have done the most to exemplify or further the cause of a more open, collaborative or more freedom-conscious approach to working, thinking and licensing.

It was sent as a thank-you to Sam's crowdfunding donors, and due to his focus on Open Source, he also wished to release the images online, with a Creative Commons Attribution-ShareAlike (CC BY-SA) licence, so that people could download, remix and distribute the images. Working with Sam and learning about the people I was illustrating made me think a lot more about the licensing I used for my own work, and since then I have licensed my personal (non-commercial) work under an Attribution-ShareAlike licence.

I chose that particular licence because I like that the Attribution-ShareAlike licence gives others the freedom to

be able to use my work in any way they wish to, but only if they then allow others to use that work in the same way. By including the ShareAlike restriction in the licence, if someone wishes to use my work commercially then they must also open up their own work, which I feel is a positive thing.

One of the most interesting recent developments for illustration has been the large-scale and high-resolution releases of public domain images from the collections of institutions in the Netherlands, the UK and New York City. Having a huge wealth of unrestricted imagery that can be used and remixed opens up new ways of working, as well as deepening understanding of the history and development of illustration as a discipline. More broadly, these online collections of illustrations give us greater and important access to the world's cultural history.

In my personal work I can choose to license as I wish, but my commercial work is often restricted due to the different needs of my clients. Copyright of commissioned illustrations usually belongs to me, the author of the work, unless there is an agreement for specific use of the illustration. This can depend on how clients want to use the work, and for what length of time. For example, they may wish to use the image online for two months, or two years, after which I can resell or republish it as I wish. Contracts can include agreements that I, or the client, cannot use the illustration for any purpose other than what was agreed upon. Using copyright agreements often protects an illustrator from being taken advantage of, but most businesses have a limited view of what copyright means and can unnecessarily

restrict an illustrator's right (or sometimes need) to reuse, remix or resell an image.

I like to work with clients who are aware of Creative Commons licences and use them in their own businesses. For example, I created the cover design for Thomasin Sleight's novel *Ad Lib*, which was published under a Creative Commons licence. Another example is the info-video for a bicycle sharing platform, BikeSurf Berlin. To me it makes complete sense to license my work in this way.

Ad Lib: Novel Published Under CC

Author Thomasin Sleigh has published her debut novel *Ad Lib* under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence, with the publishing collective Lawrence & Gibson.

Thomasin's work at DigitalNZ Ā-tihi o Aotearoa to open up Aotearoa's cultural treasures for sharing and reuse has informed her decision to license her own work under CC. "Publishing *Ad Lib* under a Creative Commons licence was very much an ideological decision. I am an advocate for unlocking cultural resources and, even though my book is published in paper format at the moment, and so is relatively difficult to copy compared to an ebook, I wanted to contribute to the Creative Commons."

Thomasin has chosen a licence that gives people advance permission to use her work in their own creations, as long as they attribute her and don't make money from it. "Because I don't write fiction for a living, I have the freedom to release my work in a way that might be more difficult for professional novelists." She is also concerned with future-proofing. "The media landscape is only going to change, and keep changing ever more rapidly. I don't want there to be any confusion in the future about how my work is to be treated." Fundamentally, Thomasin sees potential reuse as a compliment, not a threat: "If anyone wanted to use or copy from *Ad Lib*, I would be genuinely flattered."

Publishing a paper book under a Creative Commons licence is relatively unusual, and Thomasin was lucky to be published by Lawrence & Gibson, a Wellington-based publishing collective that is open to new and experimental ways of doing things. The cover for *Ad Lib* was designed by Berlin-based illustrator Judith Carnaby, who licenses her work under Creative Commons Attribution-ShareAlike (CC BY-SA).

The printing for *Ad Lib* was done by hand at Rebel Press, an anarchist publishing collective that also offers printing services. Thomasin says that the print irregularities resulting from this handmade process are “love letters from me to the reader”.

If *Ad Lib* were to be published as an ebook in the future, Thomasin says she would definitely license it CC BY-NC-SA as well. As well as opening up her own work, Thomasin’s licensing decision has exposed publishers at Lawrence & Gibson to the possibilities of book publishing with Creative Commons, so hopefully we will see more of that from them in the future.

Meena Kadri: Creative Commons and Photography

Meena Kadri is a Wellington-based photographer, designer and Community Manager for OpenIDEO, a collaborative innovation and design platform.

A long-time user of Flickr (under the name Meanest Indian), Meena releases many of her photos under a Creative Commons Attribution-NonCommercial-NoDerivatives (CC BY-NC-ND) licence. Her CC-licensed images have appeared in a variety of newspapers, magazines, blogs and books, and have been licensed for commercial use by companies like Phaidon and Apple.

Despite this success, Meena confesses, “I never actually intended to sell my photos – I just wanted to put them online. But pretty soon I realised the potential.”

While teaching at India’s National Institute of Design in the mid-2000s, Meena started using Flickr to source high-quality images for her presentations; by 2006, she was using Flickr to share her own photos. “Flickr was the first social network I’d ever used. I realised pretty quickly how to optimise traffic to my site using tags, especially because I was taking photos of events that were both in demand but under-photographed, such as the Uttarayan Kite Festival in India. It didn’t take long to get my photos on the front page of Flickr image search for certain topics.”

A direct result of the popularity of Meena’s Flickr account is that her images have featured in countless blogs and presentations. For-profit companies have also paid to use

her work, including *Serendib*, the magazine of Sri Lankan Airlines, and Phaidon Books, who included ten of her images in an Indian cookbook. Meena explains, “What I usually do in these situations is negotiate. For those people with little or no money, such as NGOs, I usually say go for it. For others, I ask, ‘Are you getting paid?’. The implication is that if they are getting paid, then I should be getting paid as well. For them, I charge my standard rate.”

Meena even licensed one of her CC-licensed photos to Apple, her biggest sale so far. At the same time, Meena ensures that images sold to for-profit companies like Apple and Phaidon remain available for reuse under their original non-commercial Creative Commons licence.

As Meena’s images grew in popularity, she experimented with using Getty, a stock image service. While she made a small amount of money from the service, Meena “didn’t like that they required you to use All Rights Reserved. I tried it, because they do move a lot of images, but in the end I decided that I preferred using Creative Commons on Flickr.”

One reason for this is that Creative Commons licences require attribution, which is not the case with stock image services like Getty. As Meena explains, “The Creative Commons licences mean that I receive a lot of traffic from having lots of sites – from major technology blogs like *Wired* to smaller community blogs with loyal followers – link back to my Flickr page.”

While Meena is keen to emphasise that the upsides of using Creative Commons licensing greatly outweigh the downsides, she has noticed her images being used without proper

attribution. “Every now and then, I’ll find unattributed images and send a nice email asking for attribution. It’s important to be nice, as a lot of people genuinely don’t know how the licences work. I tend to assume it’s a mistake, and send them a link to the licence page.”

Other uses have been more problematic. While visiting her father’s hometown in India, Meena opened a major local newspaper to find one of her images used – for commercial purposes and without attribution – to advertise the upcoming Kite Festival. Meena got in touch with the newspaper, pointed out that they did not have a licence for commercial reuse, and was eventually paid her standard rate.

To prevent unlicensed commercial reuse, Meena only puts web-quality images on her Flickr page. This means that her images are good enough for blogs or slideshow presentations; those wanting to use her images for books or posters, however, will need to ask for a higher resolution.

As a Google Image search for ‘Meanest Indian’ reveals, Meena’s CC-licensed photos are being freely reused all over the web. At the same time, for-profit companies are continuing to pay to license her work for commercial purposes – a great example of artists making money using Creative Commons NonCommercial licences.

Richard White: Openly Licensing Music

Richard White is an interesting example of an artist using Creative Commons to make his own creative output available, while working in a job that clearly demonstrates the pitfalls and possibilities of copyright and Open Access (OA) day in and day out.

Richard has made two of his albums available for download on Bandcamp, under the name Mermaid Guitar. He began by offering his earlier album, *Me for a Day*, with a five dollar price tag, and then decided to offer *Barry Starr* for free, with the ‘name your price’ function, where users choose how much they’d like to pay.

Despite being available for free, the second album has had more downloads and more sales – so he’s now offering the earlier album under the same terms. For Richard, this makes the process of selling an album more exciting. As he puts it, “People have paid a lot more than I thought they might, more than the five dollars I initially offered the first album for.”

Plenty of others have downloaded his music for free, but Richard says that he’s totally happy with this. “Ultimately I just like the idea that someone’s listening to my music on their iPod on the other side of the world.” But he’s also careful to point out that he doesn’t try to make a living from his music and concedes that, for those who do, there are greater challenges.

As part of the production process, Richard sourced all artwork for *Barry Starr* from Public Domain or Creative

Commons sources, but he says finding images which could be used with the Creative Commons Attribution-ShareAlike (CC BY-SA) licence he used for the album, which also fit his purpose, was trickier than he thought.

"There were some great images I really liked, but they had either ND (NoDerivatives) or, more commonly, NC (NonCommercial)," Richard says. "Given that people could pay, I couldn't use NC. I guess the difficulty I had finding good stuff showed me that Open Access is still at the 'evangelical' stage in many respects and we need more converts for it to become more self-sustaining."

By day, Richard works as Copyright Manager at the University of Otago Te Whare Wānanga o Otāgo, addressing any copyright issues or questions encountered by staff and research students there. This can be a challenge: while most staff have an understanding of the broad concepts of copyright, it can be a complex web of legislation, licences and rights.

Richard has found himself a staunch advocate of Open Access in the tertiary sector and Creative Commons as the main vehicle for that. "Creative Commons licences simplify a lot of things from a copyright point of view," he says. "Often a staff member or a PhD student will come to me or one of our library staff with questions about permission for something they want to use in a piece of research. One of the most common problems is that they just don't hear from someone they've contacted to get permission."

He says accessibility is often the last thing researchers and academics are thinking about. They're used to things being

done a certain way and aren't necessarily aware of the Open Access alternatives. Their reputations as academics are affected by how often they're being published in scholarly journals, and the quality of those journals is taken into account too.

"That's the major roadblock for Open Access publications, just getting enough visibility and usage to attract good quality research, to gain a name as a good journal, not just an Open Access journal. I mean, I'd love it if all research was open."

Other countries are mandating that all publicly funded research should be open – the US Government, for example – but New Zealand isn't making any moves yet. Instead academics do their research, write it up, submit it for publication, go through the peer review process and are accepted into these big journals where they're published, which universities around the world then pay subscription fees to access.

He appreciates the freedom Creative Commons licences give both creator and reuser, academic and artistic. "When someone has used a Creative Commons licence they've declared up front what they're happy for others to do with their work. So part of my work is helping people understand the implications of their choices with their own work as part of the knowledge ecosystem.

"In that respect it's no different from choosing Creative Commons in an artistic medium: you're sharing your work for others to use and build on. I can't claim that my music has informed great cultural achievements but there are people who've put it in compilations or used it in their films, which is immensely satisfying."

The Vertical Cinema Manifesto

In June 2012, YouTube user ‘gloveandboots’ released “Vertical Video Syndrome – A PSA”, a video poking fun at filmmakers who hold their camera-phone vertically. Common across YouTube, videos shot vertically have two black bands of empty space framing the video.

“Vertical Video Syndrome” quickly went viral, picking up over three million views on YouTube. Noticing the popularity of the video, Miriam Ross – an academic and filmmaker based in Wellington, New Zealand – decided to respond. With research assistant Maddy Glen, Miriam produced “Vertical Cinema Manifesto”, arguing that vertical cinema was, in fact, a legitimate cinematic form.

As Miriam explains, “‘Vertical Video Syndrome’ was very humorous, but when you see it getting circulated online, it’s used as a form of policing.

“We wanted to get away from that. We wanted to say, we have all these new tools, let’s see what can happen. It’s all very experimental. Hopefully the manifesto is a celebration of what can be done.”

Replete with quotes from feminist film scholar Laura Mulvey, the result was a close parody of “Vertical Video Syndrome”. The film closes with six recommendations, the fourth of which reads: “A Creative Commons licence must be used.”

The ideas around the manifesto tied into an Honours film course Miriam was teaching at the time on DIY filmmaking. “That paper framed the project. Part of that is trying to move

away from the hierarchies around filmmaking – the idea that there’s a ‘best way’ to make films.

“We were looking at how people use the technology they have in their hands to make films with no budget or resources. Obviously, with DIY filmmaking the Creative Commons licences became very interesting. It tied into both the courses I teach and our project. Because we’ve got no money, we’ve been wanting to find material we can use for free. But we also want to take part in this Creative Commons culture that’s going round now, where people are licensing their work for free.”

Miriam is also interested in how DIY filmmakers remix and reuse other cultural works. “There’s a lot of debate now, because video essays are becoming more popular. Film academics are using video clips, and sometimes using voiceover to narrate the clips, and that could come up against copyright.”

As Miriam points out, one of the problems is that New Zealand lacks the broad ‘fair use’ allowances enjoyed in the US. Even “Vertical Cinema Manifesto” itself, which uses small parts of several copyright films, could occupy a grey area, despite New Zealand’s ‘fair dealing’ exceptions for criticism and review.

“It is tricky. One of the things I teach in my course is mash-ups and video remixes. They are a huge part of our contemporary culture, and they’re all operating in this grey area. It’s strange because the companies, especially film companies, want their films talked about. The mash-ups are often a form of advertising for them, but they still aren’t promoting this sort of use.”

More recently, Miriam and Maddy produced *Heaven*, a short ‘vertical’ film. “It’s an exploration of what we can do with very little resources and money, using new technologies.”

This film, like the manifesto itself, was made collaboratively with friends and colleagues and carries a Creative Commons Attribution (CC BY) licence.

“That’s what’s great about Creative Commons. It encourages people to take something and just see what they can do with it. That’s the kind of spirit I want to see more of. Instead of trying to be an auteur starting from scratch to make something unique and singular, why not build on what other people are doing to create something that’s maybe more hybrid, but maybe more exciting as a result?”

Jem Yoshioka: Openly Licensed Digital Art

In 2010, Jem Yoshioka decided to enter Mix & Mash, then a new initiative from DigitalNZ Ā-tihi o Aotearoa and the National Library of New Zealand Te Puna Mātauranga o Aotearoa. Reusing Katherine Mansfield's poem 'An Opal Dream Cave', Jem produced a short comic of the same name.

With this entry, Jem won the Creative Commons category of Mix & Mash. As Jem relates, "That was when I began to think about how I could use Creative Commons material in my work, and also start licensing my own work under Creative Commons."

"I then decided to open up my Flickr stream. Now, everything I put online I license under Creative Commons."

The comics on Jem's website, including 'An Opal Dream Cave' and 'Sunshine', are all made available under a Creative Commons Attribution-ShareAlike (CC BY-SA) licence. Many more photos, illustrations, comics and sketches are made available under the same licence on her Flickr stream.

As Jem explains, "I use Creative Commons for many reasons, one of them being that I really do believe that copyright is outdated, especially given the way we can share things online. It becomes more of a burden than anything. Instead of encouraging creativity, it begins to block it.

"By using an open licence, it actually gives me a lot more freedom to say what I want done with my work. I don't have

to worry about people infringing my rights, as it's very clear what can be done with my work."

Jem chose to use the ShareAlike licence so "everyone that uses my work is also contributing to Creative Commons. It's a way of increasing the pool of work and encouraging the conversation.

"The ShareAlike licence is a way for me to contribute to the Creative Commons environment."

Unlike some artists, like Dylan Horrocks, Jem chose not to apply a NonCommercial licence to her work. As she explains, "People can make money off my work. I'm really not too fussed about that; as long as it's got my name on it, they can do whatever they like. I'd rather it be shared. The ShareAlike aspect of the licence means anything that is made, even commercially, also has to be ShareAlike. If a big company wants to use my work, they're doing so while contributing to Creative Commons.

"Being a part of a community also helps me to get a bit more traction for my freelance work. This model doesn't take money away from me. It engages and connects people even more with what I do."

Jem is also a trustee of the Creative Freedom Foundation, joining other Creative Commons supporters, including Dan Untitled, Bronwyn Holloway-Smith, Matthew Holloway and Luke Rowell of Disasteradio.

Open Source and Creative Commons in the Fine Arts

Bronwyn Holloway-Smith is an artist and arts advocate based in Wellington, interested in “internet culture, 3-dimensional printing, open source art and space colonisation”.

In 2009 Bronwyn produced ‘Ghosts in the Form of Gifts’, a permanent installation at Massey University Te Kunenga Ki Pūrehuroa, which won the 2010 Award for Open Source in the Arts. The installation presents replicas of artefacts imagined as “lost, hidden or misregistered” from the Museum of New Zealand Te Papa Tongarewa. The objects were made using an Open Source 3-dimensional printer known as the ‘RepRap’. The digital files were licensed as Creative Commons Attribution-ShareAlike (CC BY-SA), and were made available for download on her website.

Bronwyn also uploaded the files to Thingiverse, an online repository for digital design. Within a month, someone from Chicago’s What It Is gallery had been in touch. Without the usual fuss of shipping and handling, the gallery had printed an object for inclusion in their 2012 show, ‘Improbable Objects’ – all without Bronwyn having to leave Wellington.

As she puts it, “Using Creative Commons licences has opened up new opportunities for connecting with and engaging audiences and getting my work seen around the world...Traditional copyright can be a brick wall that discourages people from engaging.” She points out that while

New Zealand is geographically isolated, Creative Commons licences can link artists to international communities.

Bronwyn believes that more exciting uses of Creative Commons in the arts have yet to be discovered. She says, “I’m really interested in the new potential it represents. Its potential in the arts hasn’t been fully realised.” Bronwyn points out that Creative Commons licences are still relatively new. She describes her projects as “experiments”, with the licences a way of “allowing others to discover new exciting uses for creative works that I can’t predict”.

Her 2011 project ‘Pioneer City’, which imagines future real estate opportunities on Mars, was re-imagined by the kids in Room 11 at Lyall Bay School, after reading an article on the project in local newspaper the Wellingtonian.

For the exhibition ‘The Obstinate Object: Contemporary New Zealand Sculpture’, at City Gallery Wellington, Bronwyn returned to 3D printing, developing a new work titled ‘Whisper Down The Lane’. For this piece, she collaborated with designers Ant Pelosi and Nick Graham, using Autodesk 123D Catch and Xbox Kinect programme ReconstructMe to make digital files of other works exhibited in the gallery, releasing the files for free download on Thingiverse and creating miniature 3D prints of the works with the RepRap. For this project, she chose a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence, as using a non-commercial licence “helped keep the other artists comfortable with the project”.



In 2008, Bronwyn co-founded the Creative Freedom Foundation(CFF), a non-profit organisation that represents over 10,000 New Zealand artists. The CFF works with government officials and politicians to ensure that New Zealand artists have a voice in discussions over New Zealand's intellectual property legislation. Bronwyn says, "Many New Zealand artists rely on the internet... Any changes to legislation may mean a huge deal to these artists."

While using Creative Commons licences primarily allows her work to be reused and remixed, it also introduces issues of copyright and digital technology to artists and arts audiences. "Creative Commons starts a conversation about intellectual property, which can be really useful." Referencing artists like Marcel Duchamp, Bronwyn explains, "Art is not an island, operating independently of what's been made in the past. Remix, appropriation, parody: these techniques have been used in art for centuries. We're always building on works we've had access to."

Jon Lemmon: Creative Commons Music in Aotearoa

Jon Lemmon is a songwriter and musician based in Wellington, New Zealand. His album, *Demos/Sketches*, was released in 2011 under a Creative Commons Attribution-NonCommercial (CC BY-NC) licence.

Jon then used the same licence to release his other albums, including *Singles*, *Kindling EP* and *Steppenwolf*, also available for free download.

Jon says that he uses Creative Commons for “everything, really. I’m a bedroom producer, and do all of it on my computer – recording, writing songs, singing, all of that – and to me, it didn’t really ever seem like a question whether or not I’d use Creative Commons.”

Jon was encouraged to use Creative Commons licensing by VBC radio host Kim Wheatley, host of ‘Compulsory Ecstasy’, who was living with Jon at the time. Kim was reading Cory Doctorow and saw open licensing as an interesting way for Jon to release his music.

Jon points out that most bedroom artists don’t spend much time thinking about copyright. “If you’re young enough, you just assume everything’s fair game, especially if you grew up with bands like GirlTalk. In the underground scene, the blogosphere and stuff like that, if it’s not mainstream, it seems like people don’t really care about copyright.

“As an artist, I find copyright really obnoxious. I’m really interested in the idea of people sharing their music, so that

people can do whatever they want with it, and what you end up producing is a great mix of a whole bunch of work.

“There was no question there, I wanted to open the album up for remix.”

Opening up the album, however, required more than just a Creative Commons licence. “You still only have a full song, and you don’t have the individual tracks and parts to sample. One of the most recent songs – ‘Exodus’ – I released the individual tracks for it as well, just in case anyone wanted to do anything with any of it.

“No one ever commented on it, and I didn’t even know if anyone even saw it or used it at all, but then randomly I was at a show, and some person came up to me and said, ‘Hey, I really like your music. It was so awesome that you released all the tracks for that one song. I’ve been playing around with it.’”

Jon, however, is quick to point out that the purpose of Creative Commons is to provide a legal framework for a culture of sharing, remix and reuse that already exists. As Jon puts it, “Cultural protection always works better than legal protection.”

Other examples of reuse include Jon and New Zealand duo Wet Wings remixing each other’s openly licensed work.

In 2011 Jon found out that “someone had done an edit of my song and put it on YouTube, which was cool.”

“I agreed, so he said, ‘We’ll put your original on, my remix on and then we’ll do a version together and put that on, too.’ So that’s what we did.”

The record was released by Car Crash Set in 2011. “That’s the only one of my tracks that’s available from a record label.”



Jon found Creative Commons particularly useful in specifying exactly what kinds of permissions he wanted to allow. “I want to be able to make sure everyone can edit this. But if someone tries to profit from my music, I want to be able to set the terms. That was actually really nice – it meant that I was safe, legally.”

On the topic of whether the culture of remix among bedroom producers included providing attribution, Jon says, “You’d be stupid not to. It’s about building relationships. Creative Commons – that concept – is just sensible...It’s the sensible way to do things.”

Dylan Horrocks: Creative Commons Cartoons

Based in Auckland, Dylan Horrocks is best known as the author of the award-winning *Hicksville*, a story of a small, comics-obsessed town on New Zealand's East Coast. *Hicksville* was named a 'book of the year' by Comics Journal and features in Auckland University Press's *Anthology of New Zealand Literature*, alongside canonical New Zealand writers James K Baxter, Maurice Gee and Katherine Mansfield.

Dylan is also a long-time supporter of Creative Commons. In fact, since 2009, Dylan has been releasing his work on his website under a Creative Commons Attribution-NonCommercial (CC BY-NC) licence. Readers can find finished stories and ongoing series, including *Sam Zabel and the Magic Pen*.

Dylan first became interested in the relationship between copyright and culture when, as a young comics reader, he saw how many authors had lost the rights to their works – including Siegel and Shuster, the creators of *Superman*, who sold their work to National Periodicals (later, DC Comics).

Dylan relates, "When freelancers got paid in the early comics industry, they had to sign the back of the cheque to cash it. On the back of the cheque, though, was a printed statement, which basically said, 'All rights to this story and the characters contained therein are hereby handed in perpetuity to the publisher.'

"The key lesson was: never sell your copyright to a company. For a long time, my view of copyright was that it was very,

very important for the artist and that you must hold on to it, no matter what."

Dylan's view of copyright changed when, in the process of researching a guest lecture for Auckland University, he realised the potential effects of the internet on the production and distribution of culture.

"I kind of had this revelation: the ease with which media can be copied when it's digital, and the ease with which it can be distributed through the internet, offers us an extraordinary historic opportunity.

"Surely we've always dreamed of a civilisation in which everyone has access to ideas, without the constraint of shipping piles of paper around the world. As an afterthought, I considered how that would affect the economics of distribution. Having thought about that, I concluded that it might mean the end of royalties. I think it took me two minutes to decide that I was fine with that."

Dylan realised that the internet had the potential to expand public access to our rich cultural heritage, including comics. "I've spent much of my life hearing rumours of a really interesting comics project, or catching a glimpse of it in some history book about comics, and thinking, I wish I could get my hands on that, and then working so hard looking for ways to access it."

Dylan talks about Finnish writer and cartoonist Tove Jansson, best known as the inventor of the Moomins. For years, Dylan was unaware that Jansson had drawn a comic strip, until he came across a reference to her in a German history of comics.

After receiving a photocopy of the comic from historian Paul Gravett, Dylan decided to run off 30 more copies and give them away to other cartoonists around the world.

“Eventually, a few years later, my publisher, Drawn and Quarterly, started republishing those comics. They’re selling really well and it’s rewriting the history of comics.”

With the internet, these practices of sharing and reuse are becoming increasingly common. As Dylan puts it, “This is a fantastic gift to the whole culture. I have access to a vastly greater landscape of recorded culture than any previous generation, and that’s going to change the way artists work. I already see it in the work of younger artists.”

By using a Creative Commons licence on his own work, Dylan hopes to encourage younger artists to remix and adapt their own version of *The American Dream* or *Sam Zabel and the Magic Pen*.

As Dylan puts it, “I don’t object to people sharing my work and I don’t object to people using my work as an inspiration for new work, because both for me are really gratifying. It shows that people are engaging with my work and they’re excited by it.

“If people are sharing it around, more people are reading it. The idea that it’s inspiring other people to do new work is gratifying, especially because my work in turn is inspired by other people.”

Creative Commons provides Dylan with an alternative to what he sees as a narrow, but dominant, vision of culture and art. “When I make a piece of art, it’s me responding to a

whole lot of art and the world around me. When I finish it, I want it to go back into that flow of art and ideas, and be shared and responded to by people. Treating it as a single piece of property seems wrong. Lots of people have a relationship to that piece of art.”

Dylan decided to apply a NonCommercial licence, to ensure that commercial publishers wouldn’t distribute his work without his express permission.

“Part of what appeals to me about Creative Commons is that the Creative Commons licence that I prefer – which tends to be Attribution-NonCommercial – far more accurately reflects my preference as an author about how my work is used. The idea of some 14-year-old getting to read their work and not paying them really doesn’t bug most writers. We don’t want to put walls up around our work. We just don’t want people getting rich off it without us.

“Creative Commons doesn’t actually take any of the rights I care about as an author. If someone wants to make a big Hollywood film or sell t-shirts, they can get in touch, just as they can under all-rights-reserved copyright. And if there is going to be money changing hands then some of that money should be coming to me.”

Currently, Dylan’s printed comics are not released under a Creative Commons licence. While acknowledging that open licensing could actually increase sales, he notes that many publishers continue to be cautious about copyright. “The fact that I’m serialising stuff online while I’m working on it does cause problems with publishers. It’s an ongoing process. That’s

something for the Creative Commons community to help with – helping artists who want to use Creative Commons to find ways to bring publishers and traditional distributors on board.”

Dylan hopes that his use of Creative Commons licences on his website will encourage young artists to share and adapt his work. “If my comic is photocopied or scanned by a teenager and given to their friend – man, I love that. Or if someone wants to make a t-shirt of my comic to give as a present for Christmas, go for it. Creative Commons reflects my own personal ethics about how my work is used.”

Open Government and Data



Open Government Information and Data in New Zealand

By Keitha Booth, Director, New Zealand Open Government Information and Data Programme

Open government, which holds that citizens have the right to access the documents and proceedings of their government to allow for effective public oversight, has three important aspects: transparency, participation and collaboration. Many countries, including New Zealand, now embrace these through their international Open Government Partnership commitments.¹

The history of open government in New Zealand Aotearoa began in the latter half of the twentieth century. The Parliamentary Commissioner (Ombudsman) Act 1962 set the scene by giving the Ombudsmen wide rights of access to departmental files, and making failure by a state agency to give reasons for any decision to refuse information one of the grounds on which an Ombudsman could intervene. At that time, the Official Secrets Act 1951, which made the release of information held by Government agencies an offence, was still in force.

During the 1970s many civil society groups argued for more public debate on government business and better access to government-held information. The Coalition for Open Government played a leading role in the development of the Official Information Act 1982 (OIA).²

¹ www.opengovpartnership.org

² <https://coalitionforopengovernment.wordpress.com>

The OIA was foreshadowed by the 1980 report of the Committee on Official Information, known as the Danks Committee (named after its Chairman), *Towards Open Government*.³ The Act implemented most of its recommendations. It repealed the Official Secrets Act 1951 and it promotes access to information held by various government agencies. Its guiding principle is that information should be made available unless a good reason exists under the Act for withholding it.

The New Zealand Open Government Data and information movement built on these foundations and has also paralleled international activities, particularly in the US, UK and Australia. Important international measures include President Obama's Memorandum on Transparency and Open Government, issued on 21 January 2009, and the development of the public data directory data.gov. Australia and the United Kingdom followed quickly with their own statements and also set up websites listing their governments' public data.

In New Zealand there was pressure from civil society groups who were watching international developments. Active users of technology and the internet expected to participate in public policy development and to have government services reorganised around their needs. In particular, they wanted to find and use government's public information and data online – in the same way as they used online content in their personal lives – and to use it to create new apps, tools, services, research and knowledge. In other words, these developers wanted to innovate using publicly

3 www.teara.govt.nz/en/freedom-of-official-information/page-1

funded data. To illustrate what they wanted, they created a catalogue of government's public datasets.

Around the same time, OECD ministers set international public sector information policy promoting wider use and reuse of public sector information in 2008.⁴ This provided the catalyst for New Zealand to move ahead formally.

Government's first response in November 2009 was the website data.govt.nz, developed by the Department of Internal Affairs Te Tari Taiwhenua, which lists government's public datasets. All data listed on this site is in an open format, although much of it in 2015 has still to be released in fully open data formats. Some is downloadable as Application Programming Interfaces (APIs) or web services.

Between 2010 and 2011, Cabinet also approved three information policies, with this work initially led by the State Services Commission, then the Department of Internal Affairs and more recently at Land Information New Zealand.

The *Declaration on Open and Transparent Government*, 2011, states that: "Building on New Zealand's democratic tradition, the government commits to actively releasing high value public data" and that "the government holds data on behalf of the New Zealand public. We release it to enable the private and community sectors to use it to grow the economy, strengthen our social and cultural fabric, and sustain our environment. We release it to encourage business and community involvement in government decision-making."⁵ Government departments are

⁴ OECD. Recommendation of the Council for Enhanced Access and More Effective Use of Public Sector Information. [C(2008)36]

⁵ www.ict.govt.nz/guidance-and-resources/open-government/declaration-open-and-transparent-government

directed to release high-value public data that their users wish to reuse and all other government agencies are encouraged or invited to do so.

The *New Zealand Data and Information Management Principles*, 2011, state that “Government data and information should be open, readily available, well managed, reasonably priced and re-usable unless there are necessary reasons for its protection. Personal and classified information will remain protected. Government data and information should also be trusted and authoritative. Whilst fully requiring personal and classified information to be protected, remaining government-held information and data must be open.”⁶

The *New Zealand Government Open Access and Licensing framework* (NZGOAL), 2010⁷ is “guidance to assist government agencies publishing information and data for legal reuse. It was prepared to encourage full use and re-use of this material for economic, environmental, creative or cultural purposes and to encourage experts and others to contribute to improved policy development and more efficient financial performance by government.”

NZGOAL recommends that agencies apply Creative Commons licences to the copyright works they are releasing for reuse, and a no known rights statement to non-copyright works. The Creative Commons Attribution (CC BY) licence is the recommended default licence. Use of this internationally adopted suite of Creative Commons licences allows agencies

6 www.ict.govt.nz/guidance-and-resources/open-government/new-zealand-data-and-information-management-principles

7 www.ict.govt.nz/guidance-and-resources/open-government/new-zealand-government-open-access-and-licensing-nzgoal-framework

to encourage widespread legal reuse of open government information and data without any need to draw up their own contracts. Agencies are guided through a review and release process that helps them to assign the appropriate licence.

In 2013 the New Zealand government released its first *Open Government Partnership Action Plan 2014–2016*, stating that: “New Zealand works hard to maintain and build upon the foundation stones that foster trust in government. We continuously strive to: maintain high levels of integrity; foster a culture of openness and freedom of information and public accountability; and protect personal information and confidential government information. We also require a culture of service to the public and responsiveness to the public’s needs, concerns and complaints; merit-based appointments; free and frank advice and unbiased action; and ensure judicial independence. We expect public officials and institutions to be free from corruption and conflicts of interest; make ethically based decisions and provide leadership. This continued vigilance contributes to New Zealand’s reputation for integrity, openness and a corruption-free government.”

This first plan sets out a series of actions, and will be updated regularly in collaboration with civil society.

Who is Using Open Government Data?

Since the adoption of the Declaration on Open and Transparent Government in August 2011, New Zealand's government agencies have been releasing their high-value data for innovative reuse under a Creative Commons Attribution (CC BY) licence. By June 2012, 75% of all government departments had already released their data, and the majority had plans to do so in the future.

And yet, as the open government folks like to say, you're only as good as your last reuse. This is why Creative Commons licences are so important: they allow members of the public to share, remix and reuse public data, without having to ask permission in advance. Going by download figures from platforms like Koordinates, more people are viewing and downloading publicly funded data. But what about reuse?

There are a few great examples coming to light, such as the ANZ truckometer. Using traffic volume data released by the New Zealand Transport Agency Waka Kotahi (NZTA), "ANZ selected key routes and applied statistical techniques to smooth out anomalies and gaps. The result is a strong correlation between traffic flows and predicting economic growth or decline as measured by GDP data from Statistics New Zealand. ANZ has found that, in general, light traffic flows give a six month heads-up on the direction the economy will take and heavy traffic flows give an even more accurate picture six months later".¹

¹ www.ict.govt.nz/guidance-and-resources/case-studies/open-data/anz-truckometer

Another case study looked is the Charities Register, a tool released by the Charities Commission in June 2011. The Register offers information from over 25,000 registered charities for reuse under a Creative Commons Attribution licence. Since this initial release, the Register has been used by:

- funding bodies like The Southern Trust;
- government bodies like the Ministry for Social Development Te Manatū Whakahiato Ora and the Families Commission;
- media organisations;
- students and researchers;
- local government bodies, like the Manawatu District Council; and
- volunteer portals, such as that under construction by Student Job Search.

More recently, the Open Government Data and Information Programme published the following case study on Dumpark: “When the Human Rights Commission wanted to track equality at work and provide an evidential basis for monitoring fairness in the workplace, it was no easy task. Instead of a manual and time-consuming process, they engaged Dumpark to access open data, open up other data, and build a web-based tool.

“‘Tracking Equality at Work’ brings together a suite of employment data so that fairness and equality of outcomes at work can be compared. Dumpark helped the Human Rights Commission organise and open up relevant data to supply the tool. Further indicators and datasets will be added over time.

“The disaggregated data uses four key aspects of work and the interactive tool allows analysis of equality by sex, ethnicity, age, disability, and over time. The web-tool makes it possible to track the persistence of inequality over time, and whether or not progress towards equality is being made. It also makes it possible to track the outcomes of a particular group across multiple indicators. The tool can also be used to disaggregate groups across several demographic characteristics.

“Since Dumpark opened their doors in 2012, their primary goal has been to provide tools that allow people and organisations to understand and communicate data and complex information.

“Co-founder Timo Franz says ‘Our primary focus has been on opening up data and creating data visualisation tools as a public service. We believe governments represent the citizens of the world, and data can be used to drive transparency and accountability, as well as inform the democracy we live in.’”

These are, of course, just a couple of examples of how government data is being released and reused – there are many, many more. Some of these are up at Open Data Stories. Keep an eye on the New Zealand Open Government Data and Information Programme website www.ict.govt.nz to learn more.



New Zealand Electronic Text Collection

The New Zealand Electronic Text Collection (NZETC), a free online archive of New Zealand and Pacific Islands texts and heritage materials, was created in 2002 as part of the University of Victoria Library Te Pātaka Kōrero. Since then, its accessible collection has grown to over 2,600 texts that feature in an online library.

Their four main objectives are:

- to create a digital library providing open access to significant New Zealand and Pacific Island texts and materials, encompassing both digitised heritage material and born-digital resources
- to effectively partner with other organisations, as a collaborator and service provider, on a variety of digitisation and digital content projects
- to build a wider community skilled in the use and creation of digital materials through teaching and training activities and by publishing and presenting the results of research, and
- to work at the intersection of computing tools with textual material and investigate how these tools may be used to make new knowledge from our cultural inheritance.

The NZETC works with many partners in the cultural heritage and ePublishing sector, such as National Library of New Zealand Te Puna Mātauranga o Aotearoa, the Alexander

Turnbull Library, the Auckland War Memorial Museum Tamaki Paenga Hira, and the State Library of Victoria. Projects have also been developed within Victoria University of Wellington Te Whare Wānanga o te Ūpoko o te Ika a Māui with the International Institute of Modern Letters Te Pūtahi Tuhi Auaha o te Ao; the School of English, Film, Theatre and Media Studies Te Kura Tānga Kōrero Ingarihi, Kiriata, Whakaari, Pāpāho; Va'aoman Pasifika; the School of Biological Sciences Te Kura Mātauranga Koiora; Victoria University Press; J C Beaglehole Room; and Wai-te-ata Press. The NZETC is an active member of the National Digital Forum, the Text Encoding Initiative Consortium, and the Australia and New Zealand Digital Encyclopaedia Group.

The NZETC provides free access to a range of materials in multiple formats for download or online browsing. In situations where the original text is out of copyright, the NZETC provides a digitised version under a New Zealand Creative Commons Attribution-ShareAlike (CC BY-SA) licence. This allows the sharing and remixing of the digitised text, even for commercial reasons, as long as the NZETC is credited and users license their new creations under the Creative Commons Attribution-ShareAlike Licence too.

“We hope this will encourage more use of the resources by making it obvious to our users that, in many cases, they can take the digital editions to share and transform as they like,” says Alison Stevenson, NZETC director.

So far there are 433 titles available under the New Zealand Creative Commons licence, including Walter Buller’s *A History*

of the *Birds of New Zealand*, the 1914 edition of the *Edmond's Cookery Book*, Katherine Mansfield's fiction, Elsdon Best's monographs, and the many 19th-century New Zealand novels in the archive.

Much of the material handled by the NZETC cannot be released with Creative Commons licences because full copyright is retained by others, although these parties will have the option of choosing Creative Commons for their work from now on. Alison says, "In terms of Creative Commons licensing for original works which are in copyright, now that we can demonstrate the licence in use on the site it will be easier to offer it as an option and we'll certainly talk to authors about this in future projects." The centre regularly received requests from remix poets for permission to republish text, and from journalists and exhibition organisers for permission to reproduce NZETC images. By applying a Creative Commons licence to some of the collection, users no longer have to contact the centre for permission on this material.

LINZ Data Service

In June 2011, Land Information New Zealand Toitū Te Whenua (LINZ) launched the LINZ Data Service (LDS), a web-based tool that allows users to map and download LINZ data. LDS licenses most of its data under a Creative Commons Attribution (CC BY) licence.

LDS was born, Manager Jeremy Palmer says, out of the need to do two things: “First, to drive innovation in the private sector to get better reuse of our data, and second, to drive efficiencies within government agencies.” One of the operation’s key requirements, Jeremy says, was the open licensing of data.

Thanks to the New Zealand Government Open Access and Licensing (NZGOAL) framework, deciding to license with Creative Commons was a relatively simple process. “We brought NZGOAL into the equation early on, which allowed us to analyse our methods of licensing – previously, each dataset had its own terms, conditions and restrictions based on various levels of complex copyright.

“We concluded pretty quickly that we could relicense most of our datasets under Creative Commons Attribution (CC BY) licences – bar a few which have legal restrictions on them.”

Vicki Lindsay, Support Advisor, described the LDS experience as a “bit of a test pilot” for the implementation of the NZGOAL framework. “It was really good for us because we didn’t need to develop any licences, but could adopt a licence recognised both nationally and internationally.”

LINZ's Chief Executive at the time, Colin MacDonald, was intimately involved in the cross-government programme for data and information re-use. The adoption of the NZGOAL framework was a strategic decision on LINZ's part – an opportunity for LINZ to show leadership in the open data space. Jeremy says that stakeholders and partners that contributed to the design of the service would also chip in with advice: “We were working in partnership with Koordinates, who provided the technology for LDS and who are heavily involved in the open data movement.”

Before the launch of the LDS, access to LINZ datasets was primarily done through manual requests and provided on DVDs – a labour-intensive and time-consuming process. While some of these “legacy services” are running alongside the LDS currently, Vicki notes they will be streamlined into the LDS in the long term. As with any major change in service delivery, the transition can take time to negotiate.

But Jeremy says the change has been for the best: “The service is a professional service, enabling easy online access to our data via a sophisticated set of tools and functionality. In a typical week, LDS gets upwards of 500 file downloads of our datasets – which is much, much more than when our data distribution was manually administered.”

Not only has opening the datasets increased usage in numbers, it's also invited a more diverse user-base, says Vicki. “Because it's much more accessible now, and free to access, we are seeing our customer base grow to include smaller organisations that may not have used LINZ data before,

whereas customers who used our previous services were generally professional organisations who could consume that complex data quite easily.

“It was generally very complex, so it was quite a shift in philosophy for us to go from being a raw bulk data distributor to taking that data and making it accessible to that wider range of users,” adds Jeremy.

Landscape architect Nigel Cowburn, of Growplan Ltd, uses the LDS datasets to arrive at worksites to meet clients “fully armed” with information about the property and landscape as it currently exists. He says the LDS enables him to prepare ahead of time. “It’s free and reliable, and helps me ask intelligent questions,” Nigel says. “It makes the remote part of my work possible, as I have a good idea of the landscape before I go – the more information I can access online, the better.”

LDS is frequently updated to meet the needs of its customers. But as with any large operation, the project didn’t come without its obstacles. “The release and simplification of large datasets were a big challenge for us to manage – from the outset, however, by partnering with Koordinates, they had already solved some of the issues.”

Jeremy notes that the service is really showing results. The number of registered users of the LINZ Data Service continues to climb by several hundred users every month. These customers, spanning government, geospatial, survey, utility, contracting, and engineering sectors and beyond, are using the LINZ Data Service to realise efficiencies, innovation and improved decision-making.

The LDS's efforts haven't gone unrecognised. LINZ was the recipient of the JK Barrie Award for Overall Excellence at the Asia Pacific Spatial Excellence Awards – the premier forum for recognising the spatial information industry's top performers. Of the award, LINZ Chief Executive Peter Mersi says, "It is recognition of the highest order of the value of developing and implementing an easy-to-use geospatial data sharing service." Mersi says LDS has played a part in "revolutionising the way people can discover, use and share New Zealand public data".

Jeremy notes that Australians are "envious of the openness of the whole ecosystem" that LDS uses. "In Australia, the multiple levels of government have imposed a model where they're trying to still do cost recovery for their assets. The fact that we were able to remove barriers with Creative Commons licences really made an impact and helped us win that award. Over there, a lot of their data is still very locked up."

Quizzed about their advice to other government agencies considering using open licensing, both Jeremy and Vicki are supportive of the measures. "I'd definitely recommend opening access to public, non-private information across government. If there's a mandate to adopt open licensing, and you want to get it done, NZGOAL and Creative Commons licences get really good results and can reduce timeframes to actually just get the data out there."

Statistics New Zealand

On his blog *Econometrics Beat* Canadian economist David E Giles describes the open presentation of Statistics New Zealand (SNZ) Tatauranga Aotearoa's data online: "This isn't just a collection of boring spreadsheets. It's a valuable and serious piece of data research."

He's right: SNZ have been pioneers in maximising transparency through the open licensing of many of their datasets, which they release online through web-based applications NZ.Stat and Infoshare. While SNZ is best known to the public for their management of the census, their remit stretches beyond just this – and they use open licences on much of their data to ensure it has maximum reach.

The logic for SNZ is simple. Releasing data in an open framework helps for a range of reasons:

- it makes it easier for government agencies to work together;
- it reduces the cost of providing an existing government service, with decreased paperwork and hoops to jump through;
- it maximises access and visibility to users, attracting new customers; and
- it reduces the cost of accessing and processing information for existing users.

Census data is what most of the public know SNZ for. Through their website, SNZ has released blocks of census data from 1996, 2001, 2006 and 2013 under Creative Commons

Attribution (CC BY) licences. These datasets – which include information on age, ethnicity, income, workplace, dwelling size and geography – can be organised online and then downloaded in a variety of formats for remix and reuse.

A dedicated team works to develop census datasets for phased release. They are constantly looking for ways to improve: for each new census recorded, changes and improvements in the range of datasets available are made based on user feedback.

SNZ also releases economic datasets, which detail New Zealand's gross domestic product, consumer price index, balance of payments and productivity – all on a quarterly basis. This data is freely available for public and business through web-based tools that aid in the preparation and formatting of datasets for open use.

Opening economic indicator data has been a great step for SNZ's visibility and usefulness to Aotearoa. Businesses, government agencies, community organisations and research institutions use the data to direct their research and development and to inform their decision-making at all levels – making New Zealand a more savvy, better-informed, and ultimately more prosperous place to live.

These Tier 1 statistics, released online through SNZ's web-based applications, describe New Zealand's economy, environment, population, society, culture, international relations, and civil and political rights. Government, businesses and members of the public use these statistics to make informed decisions and monitor the state and progress of Aotearoa.

So, what makes them Tier 1? They are consistent, of high quality, and have integrity. This is why they are the priority for the government's statistical production. Tier 1 statistics are optimal for public, wide use, which is why it's important that they are published in a way that allows for equal and open access. Like the other data services, Tier 1 statistics are delivered through a broad range of formats, including in reports, as aggregate data and (with some restrictions) as microdata.

In order to actually get data from their systems into customers' hands, SNZ uses its online data tools Infoshare and NZ.Stat, which were implemented through the Making Information Freely Available programme in 2008–09. Infoshare, designed in consultation with users to facilitate open databases, was the successor to INFOS, a closed subscription system that had only 90 consistent subscribers.

SNZ's decision to open up its data through web-based data retrieval applications has seen user numbers increase from just 90 to over 100,000 in 2011–12. Not only are these web-based applications user-friendly, they allow customers to organise data to suit them – presenting information in different formats to meet the needs of a diversity of users.

Ministry for the Environment

In July 2009 the Ministry for the Environment Manatū Mō Te Taiao started to release its datasets under a Creative Commons Attribution (CC BY) licence, becoming one of the first New Zealand government agencies to do so.

The process started in 2007, when the Ministry found itself with a range of expiring licence agreements for the distribution of some of their datasets. These databases were distributed and managed by a third party, who would charge a fee, register users, then get people to sign a licence agreement before receiving the data. It was, in the words of Karl Majorhazi, Geographic Information Systems Professional Asia Pacific (GISP-AP) Senior Analyst, simply “the way things were done”.

“But it’s not what we wanted,” Karl explains, “because when you invest in a database, the value of that is related to the number of users and uses it’s put to. So in the five years that that distribution agreement had been running, there were 99 registered users. And when you are looking to fund an update and you’ve only got 99 users it doesn’t make the maths look good.”

At this time, the State Services Commission (SSC) was beginning to look into the use of Creative Commons licences. Karl sat in on SSC meeting with Creative Commons Australia Project Lead Anne Fitzgerald, of the Queensland University of Technology Faculty of Law.

Following this meeting, the decision to move to Creative Commons licensing was rather straightforward. “We tested it

out, got some advice on what it is, what it could be used for, what it couldn't, and eventually we came to the decision that this was the way to go."

The second piece of the puzzle was an online data platform Koordinates, launched only a few months earlier, which provided an easy way to search, sort and share the datasets.

The Ministry's first release was on 1 July 2009, and it didn't take long for the data to be used in unexpected ways.

"We had a request from a company in Germany who were making a flight simulator app for the iPhone, who wanted to know if they could use the Landcover database in their system to give a more feature-rich environment for anyone that's flying over the country." Of course, they didn't need to ask us, unlike as with past arrangements, because "the licence terms and conditions mean there's no reason why they can't".

The Landcover database quickly went from 99 registered users to over 2,000 downloads, as researchers, students and members of the public began to freely use the data.

Karl had a phone call from someone "who was looking at the watershed data that we provide as part of the Marine Environment Classification. He was using that for a search and rescue project, using the watersheds to determine where people get lost and found. That's one of these unintended reuses that you don't plan for when you are developing this database."

Karl notes that one of the downsides of open data platforms is that you are unable to track users. Nevertheless, there have been several other exciting examples of high-value reuse of Ministry for the Environment data.

As Karl explains, “I turned up at a seminar and a colleague of mine came bounding over from the other side of the room with a big smile on his face and said, ‘I’ve got a good news story for you!’ He operates a small consultancy and he was asked to turn around a quick analysis for parliament on how much it would roughly cost to dig trenches alongside roads and motorways to lay broadband cable.

“He couldn’t get access to the soil information from Landcare at the time because it was under wraps commercially, but he found a piece of research that tied to it the attributes in the Land Environment dataset. He managed to download that dataset, use it in his analysis and turn that job around.

“That is a case where people could do the job they needed to do because the data was already there – it’s an argument for being proactive, not waiting until somebody requests it.”

Figure.NZ

Figure.NZ (formerly Wiki New Zealand) wants New Zealanders to make informed decisions. To this end, Lillian Grace, Founder of Figure.NZ, and others have uploaded graphs and thematic maps based on public data to Figure.NZ, a collaborative website.

While some of the data is used with permission, all of the content by Figure.NZ itself is made available under a Creative Commons Attribution (CC BY) licence.

Lillian had the idea for Figure.NZ in February 2012 while working for the New Zealand Institute. While giving talks to community and business groups, Lillian realised, “Every single issue that we addressed would have been easier to deal with if more people understood the basic facts.

“That’s one of the driving forces for me behind Figure.NZ. I’m concerned for New Zealand’s future and I think that the best chance we have of getting the best outcomes is if more people are informed and can make informed decisions.

“I’ve seen the power of informed decisions. I’ve seen the light go on in people when they learn something that they didn’t know.”

To help more New Zealanders find out about their country, Lillian decided to apply a Creative Commons Attribution (CC BY) licence to all Figure.NZ content. This licence allows users to share and adapt Figure.NZ content, as long as they provide attribution.

As Lillian puts it, “Creative Commons seemed like a natural fit because it seems like its purposes are very aligned with ours. I never actually considered not using it.

“I really believe in sharing data and information. I like Creative Commons. Part of it is the language that it uses. It seems like its purpose is very clear. It’s a very sensible structure. It’s not scary to use. I felt very safe and responsible, like I was doing the right thing. This is very important when it comes to copyright, which can be quite daunting.”

Figure.NZ has licensing statements for each graph, to ensure that users know exactly what they can do with its source data. While most content is sourced from New Zealand government agencies using Creative Commons licences, some of the content is made available under a more restrictive licensing agreement. “Some of the sources are fully open, like Statistics New Zealand, but some sources only let their data be reproduced for free if it’s not for commercial use.

“Imagine a scientist in the South Island collecting bacteria samples in fresh water – that’s great information. I’d be interested in knowing about that. But there has not been any mechanism to easily and regularly share such data with the public. Figure.NZ enables them to submit their data in an online visual form that can be viewed and valued by the rest of the country.

“The process is audited for content accuracy and impartiality, and the graphs are dynamically generated with a consistent look and feel to make them as easy as possible to make and digest.”

Lillian is hoping for a wide range of innovative reuse. “Anyone can do anything with the information Figure.NZ provides, as long as they abide by the licensing of the original sources. We’re providing our graphs in a range of different formats. Journalists can download the graphs and add their own branding, as long as they attribute the sources and Figure. NZ. They can repackage it how they like.”

To help promote the site, Lillian has introduced a ‘Know Your Country’ feature, which tests users’ knowledge about New Zealand.

While the site will be extremely useful for teachers and journalists, Lillian hopes that it will appeal to all New Zealanders. “It’s hard to pinpoint specific users, as it really is for everyone.

“I want it to infiltrate the culture, to make it cool to know your country, to make it normal to know your country.”

GNS Science and GeoNet

In March 2001, GNS Science Te Pū Ao, in partnership with the Earthquake Commission (EQC), launched GeoNet, a website providing real-time information on a range of geological hazards, including tsunami, volcanic activity and earthquakes. Since 2009, all GeoNet's data has been made available under a Creative Commons Attribution (CC BY) licence.

The idea for GeoNet came in the mid-1990s, as GNS started a process to get funding to re-establish the old scientific monitoring system. Several years into the process, EQC suggested a partnership.

As Ken Gledhill, who manages the GeoNet project, points out, EQC realised the intrinsic benefits of opening up public earthquake data. In discussions with GNS, EQC insisted that all aspects of the data be made publicly available. "The idea was that the data would be available to all who wanted it, and that wouldn't just be restricted to New Zealand. It was international. It was intended to increase research and then lead to better knowledge of our geological hazards."

At this early stage, EQC and GNS agreed on a user licence that was similar in principle to what would become, several years later, Creative Commons. As Ken puts it, "The essence of Creative Commons was already there. The reasons EQC got involved were the same reasons that underpin Creative Commons today: if you hoard it, nothing happens. If you get it out there, there are all sorts of benefits."

Peter Barker, General Counsel for GNS, agrees: “EQC showed a lot of foresight in going in that direction.”

In 2009, the GeoNet contract between GNS and EQC was renewed, and at that stage it was decided to apply a Creative Commons Attribution (CC BY) licence to the data. “It was a convenient means of doing what we were already doing, and was consistent with government policy. “The whole intent of the contract between GNS and EQC for GeoNet was public good. It wasn’t about any particular financial benefit to an organisation.”

Peter points out that the cost of producing data and the need for GNS to operate as a business will continue to complicate the drive to make all scientific data accessible at no cost.

“We don’t believe in hoarding the data, for any reason. We believe in the economic benefit to the country of having the data available and this is how science works. At the same time, in a significant area that we work, the collection of data is quite expensive. We need to see what’s under the earth or seabed. Drilling, for example, is very expensive, so the financial ramifications have to be considered.

“Also, the Crown Research Institutes Act requires that we run a viable business and profit is the way we pay for salary increases and scientific equipment. Our model is therefore to make data freely available but sometimes not for free. The cost will reflect our expenses and should not be a barrier to access.”

Ken adds that it is much easier for a consortium of organisations to open up for free data produced by high-cost, capital-intensive public good projects like GeoNet, where the

costs incurred by GNS are covered. An ongoing example of this kind of collaboration is the effort by GNS and LINZ to measure the gravitational field for science and survey purposes. The raw data they produce from this project is made available under a Creative Commons Attribution (CC BY) licence.

For other projects, including some involving an inventory of extremophile biological material, GNS have used more restrictive Creative Commons licences. GNS has also licensed a number of the databases on its website under a Creative Commons Attribution-ShareAlike (CC BY-SA) licence.

Peter explains that the organisation wanted to use ShareAlike in order to “perpetuate the concept of Creative Commons. A lot of the scientists here are very supportive, as they use open source material in their own research. They believe in it.”

GeoNet remains their most successful example of open data. The GeoNet site receives up to 16,000 visitors a second. There have also been many examples of innovative reuse of GeoNet data. Ken remembers in particular in the aftermath of the Canterbury earthquakes: “A lot of what we saw in those first few months was people grabbing the data we were making available and presenting it in completely new ways. We didn’t like all of it, but that’s tough. Some people did some neat animations, others did 3D imaging. It was really very good.

“There are bright people out there, and if you make it discoverable, they grab onto it really quickly.”

Open Licensing and the Christchurch Earthquake

This case study is reproduced from a 2011 post on the Open Data Stories website.

The New Zealand Government's need for imagery, film footage and data after the recent Christchurch earthquake to help in the various relief efforts and the need for it to be freely available for reuse by individuals and organisations alike has brought the utility of the New Zealand Government Open Access and Licensing framework (NZGOAL) and Creative Commons licensing into sharp focus. In "Post-quake imagery of Christchurch carries Creative Commons licence", Creative Commons Aotearoa New Zealand published a timely piece that showcases some of the initiatives across government to apply NZGOAL and licence material for reuse using open Creative Commons licences, such as aerial photography published by Koordinates and footage from Civil Defence.

Those assisting with such government initiatives have learned a couple of things from the experience. On the one hand, some agencies and officials within agencies are well aware of NZGOAL and are both willing and able to apply it to enable the legal re-use of government owned copyright material. On the other hand, other agencies and officials have limited awareness of it. That is no criticism. It's simply a statement of fact.

What was most illuminating, in one case involving film footage of the post-earthquake CBD, was that a request to assist



with licensing of certain material assumed (understandably) that there might be legal documents to draft and sign as a prerequisite to releasing the material for reuse. The official concerned wasn't familiar with the detail of NZGOAL but, once explained, he was most interested. He was after a quick and efficient solution to enable the licensing of valuable material, with the express purpose of enabling others to reuse it in a hassle-free way, and was pleased to learn that we could rapidly apply a Creative Commons Attribution (CC BY) licence to it, and without requiring prospective users of the material to sign a single document. Using NZGOAL's review and release process, we were able to undertake the requisite legal analysis quickly and provide him with rapid turn-around of the copyright and licensing statements he needed to apply to the material. From start to finish, the whole process took little more than an hour. Shortly thereafter we saw the material springing up on multiple websites around the country.

The purpose of this story, then, is that it shows that open data – in this case open licensing of film footage – was helpful for both the agency concerned and those who wished to re-use the film footage for their own purposes (whether they were the media or otherwise). Can we put a monetary figure on this particular example of open data and open licensing? Not really, no. Was it in the public interest in the wake of a major disaster to make this film footage freely available? It certainly was.

Koordinates

Koordinates is a New Zealand-based company that provides clever platforms for hosting and viewing geographic datasets. Map layers are visualised online and can be downloaded as professional data in a way that has been described as “Google Earth for professionals”. Koordinates often relies on, and indeed encourages, providers of its geographic datasets to be published under a Creative Commons licence to streamline reuse.

Koordinates currently provides datasets about all kinds of things, from feral goat distribution to Wellington windy zones, all sourced from outside parties like Government departments and independent business listing services.

The Koordinates website offers the information as “layers” which users can visually layer together over a map as they choose. “When you add a map layer, the actual data is converted into a simple Google Maps view and displayed in your web browser,” says Ed Corkery, co-founder and CEO of Koordinates.

A piece of information that can be associated with a geographic location comes alive when working with maps. Property buyers, for example, can pull together layers displaying high-resolution aerial photos, building footprints, street locations, kerbs, school zone boundaries, parks and electoral ward boundaries to learn more about the context of their future house.

The sorts of datasets it would be useful to see layered on a map are often collated and updated by Government agencies

and are subject to crown copyright. Although some datasets are of a commercial nature and retain an “all rights reserved” status, most are provided for public reuse via Koordinates under the Creative Commons Attribution (CC BY) licence. New Zealand councils and Government agencies are embracing Creative Commons for their datasets on Koordinates as encouraged by the New Zealand Government Open Access and Licensing framework and its strong endorsement of the CC BY licence for non-personal copyright materials.

But it's not just policy that is driving early uptake of Creative Commons licences in this area. Koordinates has actively encouraged its providers to consider open access as part of their publishing practices.

According to Ed, a “lack of clearly understood licences is a big road-block to reuse of public data. We recommend the Creative Commons licensing system as an easy way for councils and Government agencies to avoid that roadblock by using an off-the-shelf licence system reaching critical mass.”

If we're given enough layers and enough access, the uses for this platform are endless.

It's not just hobbyists or researchers who can benefit from this knowledge – industry and professional practitioners gain value from readily available geographic datasets too. Upfront information about a location's soil content, for example, can streamline planning and decision making processes for farmers, builders and civil engineers.

While Koordinates can host and make such information available as layers, it is providing commercial opportunities

for third-party application developers to package up certain information in user-friendly ways for many different types of people.

“A developer can combine datasets from Koordinates and turn them into more useful services, such as iPhone apps,” says Ed.

It’s foreseeable that a Government agency’s initial decision to release geographic data under permissible licences is not only benefiting nonprofit activities, but is also stimulating healthy new business opportunities.

The datasets themselves need to be freed up from technical and copyright restrictions so that people can fully utilise the resources with fewer administrative burdens slowing it all down. Off-the-shelf copyright licences, such as Creative Commons, solve this problem.

New Zealand Transport Agency

The New Zealand Transport Agency Waka Kotahi (NZTA) is one of New Zealand's largest producers of spatial data. Since August 2012, the organisation has been uploading its aerial imagery to Koordinates, a platform for geospatial datasets, under a Creative Commons Attribution (CC BY) licence.

The spatial team has been considering how to open its data since the release of the New Zealand Government Open Access and Licensing (NZGOAL) framework, approved by Cabinet in July 2010. According to Geospatial Specialist Chris Worts, "We realised that this is something we should be doing more. There was nothing stopping us."

NZTA produces a range of datasets, many of which were available on request. For members of the public, though, this wasn't necessarily obvious, nor was the process of disseminating the data straightforward.

When NZTA received a request, someone in the spatial team – often Chris himself – would have to manually extract the data. "It would be a case of emailing data or copying the data onto hard drives and sending it out, which can be labour intensive."

With hosting platforms like Koordinates – coupled with free open licences like Creative Commons – it has become much easier for the public to find and reuse publicly funded datasets. Koordinates provides an ideal platform for NZTA to start releasing their own spatial data, as it is both popular and easy to use.

Before uploading the datasets to Koordinates, Chris had received only a handful of enquiries. Since then, the datasets have received tens of thousands of views and several thousand downloads – an exponential rise in the reuse of NZTA’s datasets.

Their experience supports a 2009 report from Land Information New Zealand. As the report concludes, the financial benefit of opening publicly funded spatial data is enormous:

“Had key barriers [to the reuse of publicly funded spatial data] been removed, it is estimated that New Zealand could have benefitted from an additional \$481 million in productivity-related benefits in 2008, generating at least \$100 million in government revenue.”

While it’s hard to argue with such a conclusion, the process of actually releasing the datasets can be quite complex. Not all datasets produced by NZTA are suitable for public reuse.

Some datasets, for example, might not be accurate in two or three years’ – or even two or three days’ – time; also, many are designed for a specific use, and are therefore not suitable for wide release. For this reason, Chris highlights the importance of “providing accurate metadata, so that users know the limitations of a dataset and how, when and why the data was created”.

While the spatial team has no concrete plans to release more datasets, Chris says that the team will continue to release datasets as appropriate in the future.

Other areas of NZTA have also started to embrace Creative Commons licensing. Like many public agencies, NZTA produces an enormous range of content, including advertisements, reports, videos and images. NZTA’s Education

Team ran a successful remix competition. The winners included Tawa College's Drink Driving Website and Darfield High School's "Shakespearean Warrant of Fitness" Advertisement.

"It is something different that's running through your mind now, it's not just, what can I use it for? Instead we ask, what are the potential wider benefits?"



Open Education



Open Education

By Matt McGregor, Public Lead, Creative Commons Aotearoa New Zealand

Max Riley is a maths teacher at Nayland College in Nelson whose departmental website, Nayland Mathematics, provides high-quality resources that are reused by teachers all over the country. As of August 2015, the website has received over two million hits – a truly extraordinary number for a school department's homepage.

It's worth pausing to consider the amount of time and energy that Max's website has saved maths teachers across Aotearoa. The teachers using the resources on Nayland Mathematics – unlike many of their colleagues in other subjects – no longer need to reinvent the wheel. They can, instead, spend their time adapting Max's resources to meet the needs of their own students.

There is, of course, only one Max Riley. But there are many thousands of New Zealand educators who have spent their careers developing a range of high-quality resources. And there are many more thousands of teachers who would benefit from being able to easily find, use and adapt these resources, without having to worry about legal or technical restrictions. With over 100,000 teachers in the compulsory education sector, the potential savings in time and energy are enormous.

This is why so many New Zealand educators are starting to make and use Open Educational Resources (OERs). OERs are resources that have been made available free of technical,

price, and most legal restrictions on reuse, for the benefit of every teacher in New Zealand (and the world). By removing the barriers to accessing educational resources, we can allow Kiwi teachers more time to do their jobs, and less time building resources from scratch.

The Price of Education

OERs aren't only good for teachers. In the tertiary education sector, we're seeing an enormous, prolonged increase in the cost of textbooks. While we don't have figures for New Zealand, those coming from the United States beggar belief. According to the US Bureau of Statistics, the cost of textbooks has risen 1,500% since 1970 – that's three times the rate of inflation. The cost of textbooks has risen faster than medical services and property prices (even in Auckland).

As a result The New Zealand Union of Students' Associations has found itself lobbying for an increase in the borrowing limit for course-related costs. And with textbook prices as high as they are, it's not hard to see why. Take, for example, a common undergraduate economics textbook, *Principles of Economics: Australia and New Zealand Edition* (sixth edition) by N Gregory Mankiw et al. According to the publisher's website, this book goes for AU\$152.95.¹ The equivalent for psychology students, *Psychology* (8th edition) by Gleitman et al., has a list price of NZ\$179.99.

Tertiary Education Institutions – and schools – also pay a large amount for the right to copy closed educational

¹ <https://cengage.co.nz/product/division/university/title/principles-of-economics-australia-and-new-zea/isbn/9780170248532>

resources beyond the very limited rights granted under the 1994 Copyright Act. While these fees are often justified in terms of supporting independent creators, they also go to textbook publishers (and the publishers of academic research). With greater use of open resources, and greater Open Access mandates, institutions (and their students) could pay less in copyright licensing fees.

It's not just a problem of cost. Textbooks are also notoriously closed – that is, they are unable to be legally copied or revised. Because New Zealand is a small country, many of our textbooks are written and published overseas but cannot be legally adapted by Kiwi educators for our own students (without paying expensive licensing fees to the publisher).

The solution to this problem is twofold. Firstly, we need more educators and departments actively choosing to use OERs for their courses and moving away from the closed and (remarkably) expensive alternatives. Over the last decade, we have seen the production of an increasingly large Commons of educational resources in almost every nation on the planet, ranging from small book-sprints to large funding projects, including President Obama's US\$2 billion open education grant programme.² We need more New Zealand educators to assign these open textbooks instead of their closed, expensive alternatives.

Secondly, change needs to come from those who set policy for the sector, which includes both the institutions themselves

² The Trade Adjustment Assistance Community College and Career Training (TAACCT) Grant Programme provides grants to community colleges to produce open educational resources for training courses in high-demand, high-wage industries. For more information, see: www.doleta.gov/taacct/

and central government agencies. These policy-makers need to ensure that all publicly funded educational resources are made open by default. In addition, they need to provide strong incentives to educators to adopt and reuse open textbooks that have already been produced.

As the pieces in this chapter suggest, we are already seeing the first signs of movement. The Open Educational Resources universitas (OERu), based at Otago Polytechnic, is working with dozens of institutions in New Zealand and around the world on the development of courses using open educational resources. Some forward-thinking educators, like Erika Pearson, Tim Bell and all the folks who wrote *Media Studies 101* and the *Computer Science Unplugged* textbooks, are producing high-quality local OERs. But these projects are still in the minority, and the New Zealand tertiary education sector is still lagging behind its international counterparts. As our student debt levels continue to rise, New Zealand students are paying the price.

Open Schools

The move to OERs in schools is looking rosier. In fact, with the increasing availability of digital technologies and the rise of centralised resource-sharing portals like Pond, the Network for Learning portal, there's no longer any technical reason why every school in New Zealand can't replicate the success of Nayland Mathematics.

But here's the rub: under New Zealand copyright law, employers have first ownership of copyright works produced in the course of a teacher's employment. This means that

teachers who share copyright resources outside of the school are legally infringing their school's intellectual property – even resources they have themselves created. As more sharing takes place online, copyright will become harder and harder to ignore and is already causing teachers considerable uncertainty. No teacher, after all, wishes to break the law.

To head off this uncertainty, schools have started to clearly adopt policies in favour of open educational resources. At the time of writing, over 100 New Zealand schools have adopted a Creative Commons policy, openly licensing their copyright works and thus enabling their teachers to legally share their resources for adaptation and reuse. These schools, including Taupaki School, Albany Senior High School and Hutt Valley High School, passed their policies to address some of the thorny legal and moral issues of sharing copyright works, and to ensure that all works produced by their teachers are added to the global Commons of OERs.

A Creative Commons policy provides a clear statement of a school's position on copyright resources produced by teachers employed at the school. Simply put, the policy allows teachers to use Creative Commons licensing to share their work for reuse. It ensures that when teachers leave, both the teacher and the school retain access to all teaching resources.

With Creative Commons licensing and great online sharing portals, New Zealand has the opportunity to ensure that all teachers, no matter the subject or year level, have access to the best resources produced by their colleagues in other schools around the country without having to worry about any

technical or legal restrictions. As Max Riley puts it, “The more we share, the more resources there will be for all.”

Hungry for Knowledge

This is not just a New Zealand issue. The global demand for education is skyrocketing, and OERs are the most efficient way to meet this demand. According to estimates from UNESCO, the world will need approximately 98 million extra places to meet growing demand from qualified students. As Stamenka Uvalić-Trumbić of UNESCO puts it, accommodating these students “would require more than four major universities (30,000 students) to open every week for the next 15 years”.³

This is the aim of projects like the OERu, discussed later in this chapter: to find new, open ways to provide educational opportunities to anyone who wants them. As Wayne Mackintosh and the OERu team recognise, there’s no longer any technical reason why anyone in the world with an internet connection shouldn’t have access to education. And with Creative Commons, we have the legal tools to provide these resources free of legal and price restrictions on access, sharing and reuse.

What we need are more of the projects outlined in this chapter: educators, librarians and institutions actively working to make, reuse and adopt open educational resources.

3 <http://oldwebsite.col.org/resources/speeches/2011presentation/Pages/2011-05-16.aspx>

The Media Studies Text Hack

**By Richard White, Copyright and Open Access Manager,
University of Otago Te Whare Wānanga o Otāgo**

On the weekend of 16–17 November 2013, a group of academics and librarians across Australia and New Zealand got together virtually to collaboratively write (or hack) an open textbook for the field of media studies.

The team was inspired by a group of Finnish mathematicians who wrote an open mathematics textbook in a weekend, and the ideals of Open Educational Resources (OER): high-quality, free-to-access and free-to-reuse educational materials. Given the specific terrain of the discipline of media studies, alongside the small student populations, there is only a limited range of texts available for students of media to use, thus the area seemed ripe for a new approach, such as OER. The project is, as far as we know, the only hacked textbook where participants were so geographically dispersed and connected only virtually.

An important part of the project has been to write up our experiences so that others can learn from our mistakes. We've developed a set of resources, which together form what we've called the Hackpack. This comprises a Cookbook (which describes how the project developed and was run, including the tech platforms we used), a sample MOU for participants, a project plan, reflections from the librarians involved, and notes on the process – what worked and what we might do

differently next time. This information is provided to help others plan their own hacks.

As is the way with open projects, it is the unintended consequences that are often the most interesting. Almost immediately upon release in February 2014, a message came from the folks at BCampus, who said they'd love to host the text on their site and they had a cool tool that could transform our Wordpress version into mobile-friendly formats. Some of the content and most of the Hackpack have also found a receptive audience at University of British Columbia. We've also seen, through stats from the Wordpress site, a good level of access from some schools in New Zealand, which is an unanticipated but most welcome form of engagement. Perhaps most gratifying was an email from an academic in the School of Journalism at Cape Peninsula University of Technology in South Africa, who was grateful that his students – many of whom struggle to buy textbooks – were able to use Media Studies 101. Indeed, leaving aside the heavy use from students at Otago, the text is being used all around the world, with people from more than 200 countries having at least visited the site (the main countries include: Australia, Canada, South Africa, the US and a variety of places in Eastern Europe) – and the text has been downloaded over 10,000 times!

The media studies text is now the core resource for the Introduction to Communication Studies at the University of Otago Te Whare Wānanga o Otāgo, as well as supplementary material for other first-year courses. Unsurprisingly the students love the fact that it's free – “serious levels of

enthusiasm” says Erika Pearson, who runs the paper. And there’s no such thing as students being disadvantaged by out-of-date editions anymore. Erika is doing some research on the effects of using an open text in her class, the results of which aren’t in yet, but early data suggests that there has been interesting side effects here too. While it was really intended for first years, references are turning up in the bibliographies of more senior students, who have never been assigned the text but who have heard about it through word of mouth and use it to help refresh themselves on key concepts in the discipline. Another result that may lead to changes in future versions is the fact that students have been raised on a diet of highlighting-key-points-on-printed-documents: one of the most common questions from students is still “How do I print it?”

Erika has been experimenting with the EdX Open Source learning management system (LMS) for this course and because the text is in an open format, she can embed the Wordpress textbook right inside the LMS. This means she can see which chapters get the heaviest use at which times; she can even see how long an individual student has spent on a page! 1:00 a.m. seems to be the optimum time for her students to access the text and 3:00 a.m. is not uncommon when an assignment is due. Given the aims of the project, one of the most encouraging outcomes has been a dramatic increase in local examples cited by students in assignments; previously they tended to come up with US-centric examples, since students tend to learn behaviours from their textbooks. Now, through the use of the open platforms,

current, topical and local examples can be quickly shared with the entire cohort.

The next step is to evaluate how the content is working in practice with real, live students. Then the plan is to run a second hack sometime in 2016 to improve the design, fill gaps in the content and increase the local content, such as developing some more content with a Pacific focus. The experiment in open resources and hacking has proven not only useful to students locally and globally, but also to the staff that took part – links have formed between academics, students, postgraduates, librarians and designers who might otherwise have never encountered each other. The Media Text Hack has become the seed of a wider community of scholars pursuing interests in more open models of research, teaching and scholarship.



The Computer Science Field Guide

By Tim Bell, Department of Computer Science and Software Engineering, University of Canterbury Te Whare Wānanga o Waitaha

Imagine as a high school teacher needing to teach a subject that you have barely heard of, has never been taught before in schools and it counts towards a student's graduating assessment!

This happened to many teachers in 2011, when New Zealand became one of the first countries in the English-speaking world to offer Computer Science as a formal topic in high school. As in many other countries, prior to this computing had been taught in a way that viewed students as users rather than developers. However, due to New Zealand being an early adopter, there were very few resources available for teachers, and those that were available were disparate, generally being pitched at a level that was too high (e.g. university courses) or too low (e.g. the CS Unplugged activities for primary school children).

In response to this, the Computer Science Education Research Group at the University of Canterbury (also known as the 'Department of Fun Stuff') started work on the *Computer Science Field Guide*, an online 'textbook' to serve as a resource for high school students and a guide for teachers. The demand for the resource was so high that it was already getting heavy use while it was still being developed, to the point that we now just call it a 'beta' release, and are constantly working to improve it.

The online book has been designed to be engaging and give a quirky approach to the topics, making good use of genuinely interactive activities to enable students to experience the concepts first-hand. It generally uses a constructivist approach, where we aim to lead students through experiences that enable them to construct concepts in their own minds, rather than us simply giving them information. We have developed short videos for the start of each chapter to raise some of the questions that the topic addresses, usually in a humorous way, and presented by a Computer Science student so that the material is authentic and approachable.

Following in the footsteps of its sister site Computer Science Unplugged, which is intended for primary-aged students, the CS Field Guide does not require the students to do any programming. This is to prevent learning programming being a barrier for students to engage with the exciting and surprising ideas in Computer Science; in fact, for some students, finding out what Computer Science is will be a motivator to learn to program.

The guide is licensed under a Creative Commons Attribution-NonCommercial-ShareAlike (CC BY-NC-SA) licence, so users are welcome to take copies and modify them. The material is produced using the Open Source Sphinx system, which was originally designed for writing Python documentation, and works from plain-text source files using the reStructuredText format (although we are in the process of changing to a more manageable format). The interactives are written using JavaScript and HTML5, and the videos are released on Vimeo

so that teachers can download them. All of these components are released with the Creative Commons licence so that the entire book can be reconstructed independently. Many people have contributed to different parts of the guide with videos, interactive activities, images and ideas, although most of the writing has been done by just a few people, which has kept it more consistent and coherent.

The guide is currently presented as a website, and the various components are carefully configured to work on as many systems as possible, especially bearing in mind that some schools operate using very old computer labs or old versions of software, while others may primarily use tablets, which places a lot of restrictions on the technologies that can be used effectively. Often if a teacher encounters something that won't work, they need to apply for new software to be installed, and even if it's approved it may take some time, so our goal is to put in as few barriers as possible.

The system we're using can also generate pdf and ebook (epub and mobi) versions of the text. Teachers appreciate being able to print a copy (although this obviously loses the video and interactive components). The ebook versions are still under development as our priority has been to fill out the online web version first.

There were several reasons for choosing to keep the resource as open as possible:

- Open Source is natural for the Computer Science community. Programming languages tend to be open source, or at least available at no cost. From a teaching



point of view, this means that students can use the resources on any computer and at home without restriction. Teachers and students come to expect Computer Science resources to be free, and any that aren't may be overlooked. The approach we're taking is modelled after (and in cooperation with) the Runestone Interactive project, which offers several interactive open-source Computer Science books.

- We have limited resources (both time and money), and don't want the book to be limited by our capacity, yet we needed to get something out quickly.
- It's important for the resource to be adaptable. New Zealand has been leading the world in Computer Science in high schools, and there is strong interest in our resources, so by making it open it can be readily adapted for overseas contexts where the curriculum may be similar but not exactly the same. This also makes translation simple – no special permission is required.
- We can use other open resources as part of the guide; for example, some xkcd comics relate well to the topic, and can be used in this context.
- Being open gives teachers security that the resource won't go away or date, since someone else can pick it up if we are unable to continue with it.

Teachers have reported copying sections of the guide to their own local school pages, and making selected parts available to students to help them focus; being open gives the

flexibility for them to customise it for their students, or simply use it as it is.

Writing a school 'textbook' with shared authorship and open content creates a number of challenges.

One of these is how to deal with 'secret' parts of the book. Many textbooks have a teachers' version that includes answers to questions. Teachers appreciate having these answers available so they can be sure they've got things right and then help stimulate discussion about the question. Openness brings the concern that a student might download the teacher version and subvert their own learning by simply reading off answers instead of thinking through the questions. Our approach has been that the teacher version contains a lot of material that teachers value but students would find uninteresting, and the hope is that students won't be interested in delving into it for the wrong reasons. In the end, students need to realise that the goal is for them to learn, rather than to look smart in class or annoy their teacher.

The teacher version is generated from the same source file as the student version, which makes editing and consistency a lot easier than having two versions. The Sphinx system has commands for the conditional use of sections of text; this can be expanded in the future to accommodate other versions, perhaps for slightly different curricula or year levels.

Another challenge is keeping the resource consistent. Authors have a remarkably wide variety of styles, and we have gone for a slightly quirky and constructivist style.

Another author might see the constructivism as not giving all the information, and in an Open Source environment could come in and ‘fill in the gaps’, inadvertently undermining the pedagogy. Everyone has opinions on how education should be done, and if the material ends up being done ‘by committee’, then it’s hard for it to be vibrant and have character. Also, the author needs to understand the audience (in this case, Kiwi teenagers and their teachers).

To date, diverse authorship hasn’t been a major problem, because all the writing has been done within a small close-knit group, but it’s possible that other versions may fork from ours. Our hope is that if a new version is better it will flourish, and if not, it will have been a useful experiment.

Translation of open books is also a challenge that we have yet to tackle properly. An Open Source textbook can be copied by others who want to add a fork in the content. If the original guide is changed, the copy becomes out of date. The same applies to translations of the guide, since each translation is also a new version, and later updates may need to be re-translated. This is a wide challenge in open publishing – for example, until recently, Wikipedia simply allowed different translations of articles to appear independently, so inevitably they would get out of sync.

Another challenge is that the software behind a site needs to be open to make the content truly open. In our case, the main text processing is all done by open-source software, but there are elements (such as the video production) that use proprietary software. The sister site, CS Unplugged, has a

similar issue, where currently the source of the main book is available in MS Word. The content is open, but users are forced to use proprietary software to edit the document. They could use OpenOffice, but the formatting gets badly messed up. Of course, the document is available as a pdf as well, but that can't be edited easily. Ultimately we may revert to a similar system to the field guide, a plain-text markup language as the source, and then many different formats generated from it.

Developing an open source 'textbook' has many challenges, but the benefits of getting it to schools quickly and giving teachers confidence that they can have some control over the content (in principle at least) has been worthwhile.

The Waikato Independent

The Waikato Independent is an online newspaper produced by journalism students at the Waikato Institute of Technology (Wintec). All stories published on the site are made available under a Creative Commons Attribution-NonCommercial-NoDerivatives Licence (CC BY-NC-ND).

The Waikato Independent is edited by Charles Riddle, Lecturer in the School of Media Arts. Charles explains, “We use the *The Waikato Independent* as a teaching tool. What we’re really interested in is getting our students’ work published as widely as possible.

“We put their work up under an open Creative Commons licence so that any of the community newspapers or websites that like the work can feel free to republish it, as long as they acknowledge the student as the author.

“The idea was that other media would pick it up, because the more widely a student can get published, the better it looks on their CV.”

Other media are paying attention. In February 2013, a story about a local talent show contestant, written by Caitlin Wallace, was picked up by Hamilton News Live; that story, in turn, was picked up by *The New Zealand Herald*, New Zealand’s largest newspaper. “It can have that knock-on effect that we’re not even always aware of.”

Another example of reuse was a story about a local Motocross rider, written by Corey Rosser, which was republished in *SunLive*.

Faculty at Wintec's School of Media Arts have introduced Creative Commons licensing as part of their wider focus on media law and copyright, specifically in their third-year Web Media course.

Most students, Charles says, are happy to give their work an open licence. Occasionally a photographer will want to maintain 'all rights reserved' copyright; otherwise, Charles says, "We keep everything open."

But what about when students graduate? Charles notes that his students may not always have the choice to use open licensing, especially if they work for more conventional news organisations. "But if they're going to end up in Public Relations, using Creative Commons makes a lot of sense, really. We have quite a few that go into that. I would expect that they would write under Creative Commons."

While noting that Creative Commons licensing is still a new concept for many, Charles points out that the licences have been a success for Wintec's journalism students. "It works fantastically for us."

New Zealand's Open Educational Resource Foundation and Universitas

by Wayne Mackintosh, Founder, Open Educational Resource Foundation

The Open Educational Resource universitas (OERu) provides free learning opportunities for all students worldwide using courses based solely on Open Educational Resources (OERs) and Open Access materials with pathways for learners to earn credible degrees. The OER Foundation, headquartered in New Zealand, is leading an international innovation partnership of accredited universities, polytechnics and community colleges committed to providing more affordable education for learners currently excluded from the formal higher education sector.

OERs are materials used to support education that may be freely accessed, reused, modified and shared by anyone.¹ Creative Commons licences are enabling an international network of accredited universities and polytechnics to widen access to more affordable degrees. The OER Tertiary Education Network, the driving force behind the OER universitas collaboration, have adopted the Free Cultural Works approved licences (CC BY and CC BY-SA) as the default for OERu courses.

With OER, the marginal cost of replicating digital learning materials is near zero, and sharing development costs improves cost efficiencies. Consequently, an international network of

¹ www.downes.ca/post/57915



accredited institutions can create significant savings in the cost and time required for the assembly and maintenance of OER courses, combined with significant efficiency gains when operating at scale. Moreover, OER provides a viable solution for educational institutions to respond to their educational mission of social inclusion.

The scale is guaranteed because of the unsatisfied global demand for higher education. Researchers at UNESCO and the Commonwealth of Learning conservatively predict that over the next 15 years the post-secondary education system will need to provide for an additional 100 million places. The conventional model of higher education provision is simply not able to respond to this level of demand for education.

The confluence of these economic and digital technology enablers provide fertile ground for designing a sustainable open education ecosystem whereby institutions can provide free access to learning opportunities. Building on Professor Emeritus Jim Taylor's 2007 ideas to provide assessment on demand, the OERu concept was conceived.

Individuals are free to learn from digital materials hosted on the open web. The problem is that learners who access digital OERs on the web and acquire knowledge and skills either formally or informally, alone or in groups, cannot readily have their learning assessed and subsequently receive appropriate academic recognition for their efforts.

OERu learners gain free access to high-quality courses that are designed for independent study using OER. OERu learners receive student support through a global network of volunteers

and peer support using social software technologies. Students can be assessed for a fee by participating institutions and earn a credible credential. Using OER it is possible to build a parallel learning universe to provide more affordable education for learners currently excluded from the formal education sector.

With a healthy dose of our Kiwi “can do” attitude, which favours pragmatism above pretence, in November 2011 the OER Foundation convened an open meeting of founding anchor partners to plan the practical implementation of the OERu. With funding support from UNESCO, this landmark meeting was streamed live on the internet, modelling open participation and collaboration on a global scale. Five tertiary education institutions in New Zealand have embraced their responsibility to ensure more sustainable education futures by joining the OERu network as founding anchor partners. Nelson Marlborough Institute of Technology Te Whare Wānanga o Te Tau Ihu o Te Waka A Maui, NorthTec Tai Tokerau Wānanga, the Open Polytechnic Kuratini Tuwhera, Otago Polytechnic Te Kura Matakini ki Otago, and the University of Canterbury Te Whare Wānanga o Waitaha are the New Zealand institutions that are leading open education futures in Aotearoa. The OERu network, now numbering 20 contributing institutions, can accredit OER learning on five continents mapped to the credentialing frameworks of 20 different countries.

The vision of the OERu collaboration became reality in 2012 with the launch of the first OERu course, Regional Relations in Asia and the Pacific (AST1000), developed by

the University of Southern Queensland (USQ). Professor Jan Thomas, Vice Chancellor and President of USQ, noted that: “USQ is proud to give students worldwide the ability to access university-level courses and where cost has been removed as a barrier to learning.”

University leaders and administrators are concerned with how to ensure sustainability of OER initiatives on campus. Indeed, if OER projects are managed as an add-on to existing operations, the sources of funding to sustain OER projects can be a challenge. However, the strategic solution is to embed OER development as an integral component of business as usual.

From an investment-decision perspective, participation in the OERu does not require new money, but rather a reallocation of existing staff time to releasing selected development outputs under open content licences for the OERu network as part of mainstream operations. The OERu model anticipates that no more than 1% of existing budget time would be required for release under open content licences. The institutional costs of assessment and credentialisation services are recouped on a cost-recovery basis from student fees and/or other sources.

Consider for example that the average tuition fees for a four-year bachelor degree at a public university in the United States is US\$26,312, excluding accommodation and textbook costs. At Otago Polytechnic, the full tuition cost of a four-year degree equivalent is approximately US\$19,452. The summative assessment and credentialing services for the first OERu prototype course would equate to a four-year bachelor

degree costing US\$6,759. As the OERu network grows and begins to leverage economies of scale, it is feasible that further cost reductions can be implemented.

The OERu network has succeeded in shifting the strategic focus of open education from how to achieve sustainable OER projects to how institutions will remain sustainable without the mainstream adoption of OER.

The OERu model is inspired by the concept of “smart philanthropy”. While the OERu is primarily designed to widen access to learning in higher education through the social inclusion and community service agenda, our approach encourages member institutions to reintegrate the lessons learned into mainstream operations. Tacit knowledge and capability gained through the OERu’s open design and development model can be reinvested back into the core business operations to improve effectiveness of the higher education sector and generate new business opportunities now possible with the OERu model. The OERu network is an exemplar for low-cost, low-risk, but high-impact innovation.

Otago Polytechnic

Otago Polytechnic Te Kura Matatini ki Otago is a publicly subsidised vocational education and training organisation located in Dunedin, in the South Island of New Zealand Aotearoa. It provides a range of vocational courses, offering certificates, diplomas, degrees and postgraduate studies in everything from Travel and Tourism, through Automotive Engineering, to Midwifery.

Taking an open view of teaching, learning and research, Otago Polytechnic has reconsidered its stance on access to educational resources, then governed by traditional views of ownership and intellectual property. Stakeholders were consulted in a 2008 review, the resulting feedback from which said that the institution needed to be more open to support creative thinking and the application of theory to practice. This culminated in the announcement in March 2008 that Otago Polytechnic was releasing its training materials under Open Access terms on Wikieducator.

As stated in its current intellectual property policy: “Otago Polytechnic wishes to foster research and development that advances knowledge and scholarship; and to support projects where that leads to marketable products or services. The Polytechnic:

- has a preference for the open sharing of information, knowledge and resources;
- recognises that intellectual property (IP) is owned by

the creator, unless there are specific agreements to the ownership of IP by others; and

- wishes to foster the empowerment of individuals in their endeavours in a protective and/or promotional framework for individual creators associated with Otago Polytechnic.”

Otago Polytechnic now offers its Open Access courses under the Creative Commons Attribution (CC BY) licence, with the application: “Creative Commons Attribution (Author name) for Otago Polytechnic”.

Individual lecturers own their own intellectual property. Encouragement and support is given by the institution to use CC BY for copyright statements. Where the Polytechnic is used to publish or promote work, a CC BY licence is applied wherever possible. Exceptions are made for works where third-party content is not or cannot be cleared. Other restrictions (if any) are time-based and explained.

Encouraging open content licences at Otago Polytechnic by way of its intellectual property policy has assured employees and contractors that they are free to use and develop open content, and that they are free to participate in Open Educational Resource development initiatives. Many staff have now developed independent skills in publishing and managing their own content, as well as locating and reusing third-party open content, and collaborating in content development. The proliferation of open content and associated practices has helped to promote the Polytech as well as the

expertise and services of the individuals in its employ. A more independent and participatory culture within the organisation is beginning to develop.

Free and open source software first inspired thinking about free and open source educational content. The success of Wikimedia Foundation projects proved the idea viable. Support from many individuals and initiatives such as Wikieducator has made it possible.

Otago Polytechnic decided to adopt the CC BY licence so as to ensure a maximum amount of freedom and flexibility for itself and for people and organisations sampling its content. Restrictions like ShareAlike and NonCommercial were not an option as they would have compromised or complicated this position.

Creative Commons in New Zealand Schools

Imagine if every teacher in New Zealand – all 100,000 of them – could make, share and adapt open educational resources and that all these resources were available in a single place. We would no longer see teachers wasting time re-inventing resources that have already been made. Instead, every teacher would have easy access to the collective intelligence of the entire teaching profession, waiting to be localised, adapted and improved.

Sounds good, doesn't it? The only problem for New Zealand teachers is that their employers – usually, their Board of Trustees – hold first ownership of copyright works produced in the course of employment. As the Ministry of Education's information portal, Te Kete Ipurangi, points out, this means that, "unless agreed otherwise, the school will own the copyright in any teaching materials that teachers (employees) create during the course of their employment."

Simply put, this means that teachers who share resources may be infringing their school's copyright.

To solve this problem – and to actively encourage the use of open educational resources – some New Zealand schools have chosen to implement Creative Commons policies. These policies allow and encourage the use of Creative Commons licensing for their school's teaching resources. In essence, they make it legal for teachers to share.

As of mid-2015, over 100 New Zealand schools have adopted a Creative Commons policy. This includes some of

our largest high schools, such as Hutt Valley High School and Burnside High School.

Kiwi teachers have always shared, remixed and reused their resources but they haven't always done so in a sustainable way. With Creative Commons licensing, and online repositories and sharing portals like Wikieducator and the Network for Learning's Pond, the potential pool of legally reusable resources is becoming much, much larger.

The Albany Story

One of the first schools to adopt a Creative Commons policy was Albany Senior High School on Auckland's North Shore, in 2012.

Former Deputy Principal of Albany Senior High School, Mark Osborne, says that the policy allows, and even encourages, teachers to, as Mark puts it, "share the family silver".

"Sharing resources," he notes, "is something teachers have done since teaching started...and most people don't realise they're breaking the law by doing that."

The Albany Creative Commons policy ensures that teachers "feel free to contribute to Open Educational Resources projects without having written permission from our Board of Trustees". The Board itself saw the advantages of students and teachers joining the growing international OER community.

As Osborne says, "When we were putting our vision for the school together, and our vision for our students, we knew that there were real opportunities. We wanted collaboration, sharing and community."

Mark Osborne hopes that other schools have a look at the resources available online, and begin a conversation with their Boards of Trustees about formulating their own Creative Commons policies. As more schools participate, the OER movement will enjoy what Mark calls a “network effect” – the exponential benefit of having thousands of New Zealand teachers building and sharing Creative Commons-licensed resources.

“The big change taking place,” Mark says, “is that teachers are collaborating more, and they’re also involving their students in the development of those teaching and learning resources. This is quite different from what happens in most schools.”

“Why Aren’t You Doing This?”

Warrington School is a small primary school in Otago’s Blueskin Bay. With five teachers and around fifty students, Warrington has embraced both open source software and Creative Commons licences.

Warrington’s former principal, Nathan Parker, came to Creative Commons licences through open software like Ubuntu, Linux and Open Office. Wayne Mackintosh, of the Open Educational Resources Foundation, noticed what Warrington was doing, and invited Nathan to start sharing teaching resources on Wikieducator.

Hosted by Otago Polytechnic, Wikieducator is a platform for teachers across the world to share, remix and reuse educational materials. Dozens of schools around New Zealand



are using the wiki through New Zealand's Open Educational Resources portal.

However, as Nathan quickly discovered, the school's Board of Trustees held the copyright to all resources produced by Warrington's teachers. "We soon realised," Nathan says, "that we couldn't put our resources on the wiki, because we as teachers don't own it." By sharing their teaching resources on Wikieducator, the teachers of Warrington School were breaking the law.

In order to prevent copyright violation, the school "needed to formalise the change through a Creative Commons policy". As was the case with Albany Senior High School, Nathan found that his Board of Trustees was "very happy" to give advance permission for teachers to share their resources. The board saw that "being able to share ideas and allowing other teachers to improve or add to our teaching resources was a smart move for education".

Warrington School also runs its own radio station, Blueskin Bay FM. The station hosts student and community programmes, and plays music with Creative Commons licences. As Nathan explains, "If we play copyright music, we have to pay licensing fees. Using Creative Commons music, we don't need to ask permission, and we don't need to pay, and the radio station just ticks along."

After moving to open source software and Creative Commons licensing, Warrington has found a greater awareness of copyright and open licensing in the students, the teachers, and even the wider community.

“When I look outside at other schools, I think, why aren’t you doing this?”

Getting on Board with Open Education

Taupaki School’s Board of Trustees (BoT) passed its Creative Commons policy on 20 February 2013, giving permission to Taupaki’s teachers to share and collaborate, legally.

Paula Hogg has been the chair of the Taupaki BoT since 2012, and oversaw the passage of the Creative Commons policy. As Paula explains, the idea for the policy was initially introduced by the school’s principal, Stephen Lethbridge. While the BoT didn’t have any specific expertise on copyright or intellectual property, Stephen ensured that they had all the necessary information.

“We got a great letter from Stephen outlining all the issues, and, following that, we put it on the agenda for the next meeting. Stephen provided a lot of information for us to read prior to that meeting, so we felt quite well prepared.”

Nevertheless, copyright and intellectual property were new issues for the BoT. As Paula says, “Creative Commons was something we’d never heard of – it wasn’t even on the periphery. While we were aware of copyright laws, we were not as well informed around exactly what was Board- and teacher-owned.”

Stephen Lethbridge introduced the idea of the policy after noticing that, as he put it in a blog post, “Teachers were sharing more and more resources online and connecting with a great many schools who were visiting us. It would have been

a nightmare to seek permission from the Board, more likely the school principal, every time a teacher or student wanted to share information.”

As Paula points out, the policy is also strongly aligned with the school’s existing vision. “Our school’s vision strongly encourages collaboration, and we encourage sharing, so it was a bit of a shock to learn that we needed to have a policy for teachers to share legally.”

“The Creative Commons policy was very aligned with our thinking as a board. There was no dissonance in our discussion. The main issue was that everyone was surprised to discover that this isn’t normal practice.”

According to Paula, the Creative Commons policy passed because it supported the fundamental mission of the school – improving student outcomes. “We knew from the documentation Stephen provided, and from other background reading, that professional development is actually one of the best ways to lift student outcomes. And a big part of professional development is sharing best practice, including resources.”

Paula also points out the importance of BoTs aligning their schools with existing government policy. While the New Zealand Government’s Open Access and Licensing framework encourages schools to use Creative Commons to release copyright works, relatively few schools are aware that the policy exists.

Given the number of policy and procedural issues confronting schools, it’s also unlikely that BoTs will seek out additional policy changes that aren’t brought to their attention.

“It’s important that Boards don’t just view this as a legal obligation and stop there. It does encompass a lot more than that, and it’s important that Boards are aware of that.”

Stephen says, “School leaders need to revisit their intellectual property documentation. Creative Commons in Schools isn’t about abdicating responsibility and a ‘copy anything’ approach. It is about acknowledgement, respect and attribution where the licence is determined by the creators of amazing information, resources and ideas within our schools.”



WikiHouse New Zealand

WikiHouse is an ambitious global project that aims to allow anyone to design, download and 'print' houses and components from standard sheets of construction-grade ply, using a computer-driven router. These components can be assembled with minimal formal skill or training.

The philosophy behind WikiHouse is thousands of years old: a community of people work together to build a house that is affordable. They share labour, tools and food. Then they work together to build the next one, and so on...

In Western countries, that's been made much more difficult by increasingly complex building regulations, the high cost of consents, labour and materials, and a drift away from community to individualism. Against that, communications technology has made it possible to collaborate across countries and to share many phases of a project. Just as open source software has become a major force in computing, so WikiHouse – an open source construction system – is set to become a major force in housing. Many designers across several countries are collaborating to make it simple for everyone to design, print and assemble beautiful, low-energy homes, customised to their needs.

WikiHouse had its beginnings in the United Kingdom in 2011, when architect Alastair Parvin and design partner Nick Ierodiaconou were invited to do an exhibition piece in South Korea about open source design communities. Alastair had been writing a book that looked at ways of scaling self-build as

a response to the UK housing crisis. Their immediate response was that rather than talk about open design, they should just try to do it with an experimental project. This open source house ultimately generated great interest worldwide.

Prior to this, English engineer Martin Luff and Australian architect Danny Squires – both now resident in Christchurch – started chatting via Twitter about the lack of innovation and poorly conceived temporary housing solutions being proposed for Christchurch following the disastrous earthquakes that had hit the city in 2010 and 2011.

As Martin puts it, “Danny and I were trying to find a solution to a whole number of different issues in the build environment. We spent about six months researching different systems. During that process, a friend tipped us off to the WikiHouse project.”

After the Canterbury earthquakes, over 6,100 businesses were displaced from the central city. “Few of those have gone back to their original location,” Martin says. “The rest needed to relocate somewhere else. We were looking for a system whereby, in the worst-case scenario, within a few weeks you could relocate your business and be back up and running.”

Martin and Danny were also keen to empower the local community. “A lot of people down here in Canterbury are stuck in limbo because they are dependent on a whole hierarchy of other agencies before they can get on with things like repairs and replacement housing.

“One particular thing we were looking for was a system that allowed people to be involved right from the get-go, through

the whole design process, right the way to implementation. One of the really nice things about WikiHouse is that the people can really assemble the things on the ground themselves, as well as being involved in the whole design process along the way. One of the main things we were looking at was empowerment.”

They quickly realised the WikiHouse project had the potential to meet all the needs they had identified, plus some. They contacted Alastair and the UK team to propose forming a New Zealand hub to develop a ‘lab’ here, and from early 2012 began working intensively to develop the WikiHouse system, gather support and put in place a scalable management and supply system to support the level of scaling which they envisaged.

Martin and Danny also wanted to ensure that what they produced was healthier, stronger and more environmentally friendly than the current housing stock. “We wanted it to be world-class in terms of its ability to stand up to seismic resistance. We also wanted it, longer-term, to go beyond sustainability to something that could be restorative to our environment.”

Creative Commons licensing is a core part of WikiHouse. Martin explains, “There are ten core principles, and principle number one is be lazy like a fox. Don’t reinvent the wheel. Copy, adapt, give credit and share.”

Creative Commons licensing enables WikiHouse teams from around the world to collaborate and improve on each other’s designs. By way of example, Martin explains that the initial WikiHouse design “had a lot of mechanical fixings in

it. A collective design effort quickly eliminated the need for those. The system we've got at the moment can be put together without power tools, by unskilled people in a very short length of time. There are no mechanical fixings in it, no bolts or screws or glue."

By May 2012, the New Zealand team had presented at a Sustainable Habitat Challenge workshop and picked up the first award for WikiHouse for commercialisation of sustainable buildings. Soon after, they were given a commendation from New Zealand Institute of Architects regional branch for a Canterbury Pavilion concept. In the UK, the WikiHouseUK team were presented with the Royal Institute of British Architects President's gold award for research. As a consequence, WikiHouse received significant global exposure and positive reviews in a variety of media channels, including CNN, Wired, Forbes, The Guardian, Engadget, and Popular Science. This led up to Alastair being invited to give a TED talk in spring 2013 which gathered a million viewers worldwide.

A major step forward came when Martin and Danny, along with other members of the WikiHouseNZ team, unveiled the first full-sized proof of concept structure during Makertorium, an event at Te Papa, Wellington, in May 2013 which was billed as "a showcase of Kiwi ingenuity".

This was the first full-scale WikiHouse frame on the ground in the Southern Hemisphere. The frame itself was cut on a router at the Fab Lab at Massey University in Wellington and later shipped to Christchurch. Primarily for the purposes of physical testing and engineering assessment, it is also a showpiece

for various organisations and individuals and will provide a platform for further work and development of applicable cladding and lining systems, along with the other elements required for a livable 21st-century dwelling.

The Te Papa event was capped by the Mayor of Wellington, Celia Wade-Brown, making the capital city the first to write WikiHouse into its official housing policy.

Further design development has been carried out in Christchurch, and a large team of mostly volunteers is working hard towards the next goal, a fully consented “BackYarder” show home. WikiHouseNZ was granted funding of \$300,000 from The Canterbury Community Trust to realise this project, which it is hoped to have erected in the latter part of 2015.

While New Zealand is one of the two most active hubs internationally, worldwide there is now a loose community of approximately 500–600 people, 10 chapters and roughly 40 people working full- or part-time on WikiHouse projects.

Going forward, Martin sees WikiHouse taking off through a series of local projects, “probably neighbourhood-based manufacturing plants, where local people can drop in, not just to build buildings, but all sorts of other things as well”. This global network of community-based organisations is where Creative Commons licensing becomes important.

“We really see this as a social enterprise, and it’s only going to work if we can deliver on scale – very large scale. One of the workshops we’re setting up in the WikiHouse project is in Rio. The global perspective on the project is that in the next 40 to 50 years, if the projections hold true, we’ve got to have built as

much urban development globally as currently is in existence. This is mind-boggling. We can't do that with conventional building techniques or without openly working together on solutions."

"As I see it, if you're shutting away that information, the things that you learn, it's essentially a waste-stream. It seems critical that, as far as possible, you're open. If you take the bigger picture, it can seem a bit petty to fence that knowledge away, and charge people to access it; especially since any new idea only ever builds incrementally on all the knowledge and wisdom that went before. Creative Commons seems like a great way to acknowledge that."

Open source hardware, however, is still a new concept, especially for highly-regulated industries like construction. "It's much trickier to get the globally distributed network right, especially when it's a mix of professionals and amateurs."

But despite the challenges – perhaps because of them – the team are working hard to develop adaptable housing designs that will empower people to create their own communities, with the aim of giving people the ability to create their own high-performance living environments, to suit their own purposes.

Acknowledgements

All books are the work of many people and this one is no exception. Firstly we would like to thank Jax Goss, Megan Kelly and Natalie Lyon, students of the Whitireia publishing programme, for their tireless efforts in producing both the print and ebook versions of *A Quiet Revolution*.

Huge thanks and a big shout-out to everyone in the Creative Commons community in Aotearoa for all the wonderful work you're doing, have done, and will hopefully continue to do in the future. We really would be nowhere without you.

Grateful thanks to everyone who pledged to our crowdfunding campaign to make this book a reality:

Amy Watling, Tim McSweeney, Keitha Booth, Ross Stevenson, Paul Tobin, Mike Kay, Zeborah, Julian Carver, Allison Brown, Melanie Wittwer, Anna Kirtlan, Peter Hewett, Robin Sheat, Judith Carnaby, Jim Tittsler, Michaela Joy Hart, Stephanie Morton, Candy Jill Elsmore, Helen Varley Jamieson, Jaya Mangalam Gibson, Maggie, Siobhan Leachman, Bill Heritage, Lincoln University Library Teaching & Learning, DG, Danyl Strype, JSM, Sarah Powell, Kirsty Adam, Tim Bell, Danny Adair, Barbara Hay, Eliot, Anne-Louise Robertson, Mark Crookston, Miriam Ross, Bevan Shortridge, Sue Goodin, Tracey Rudd, Heather McCorquodale, Garin College Library, Chris Wilson, Martin Burley, Marion Dowd, Abigail Willemse, Diane Friis, Saj Sivers, Stanley Frielick, WikiHouseNZ, Melissa Laing, Adrian Kingston, Cam Findlay, Barry Polley, Sarah Gallagher, Eloise Wallace, Mark McGuire, Karen Leahy,

Bronwyn Holloway-Smith, Nigel Robertson, Lyn Granshaw, Alex Collins, Clare Forrest, Nicole Nogoy, C L Gordon, Deborah Rolland, Natasha, Wellington Girls College, Fiona Fieldsend, Diane Baguley, Kurt Lenfesty, Dianne Smith, Cathy Aronson, Louise Mary Saunders, Sharon, Maggie Dyer, Harry Chapman, Kay Jones, Lee Rowe, Matt Turner, Hamish MacEwan, David Powell, K Wehipeihana, Mark Caunter, Margot Bowden, Anton Angelo, Norrie Mailer, Amanda Curnow, Matt, LIANZA, Nicola Zaaïman, Fern Campbell, Louise Mortland, Sienna Latham, Lhizz Browne, Floyd Wilde, AKO Takayuki, Craig Young, Kat Jenkins, Jo Booth and Erin Trethewey.

In particular, thanks to those who pledged to donate a print copy of this book to a New Zealand library:

Elisabeth Balderston, Penny Carnaby, Diane Baguley, Elisabeth Vaneveld, Kristina Hoepfner, Sabine Weber-Beard, Kevin Double, Helen Rickerby, Kathryn Parsons, Stephanie Soper, Katerina Beu, David Nind, Bevan Rudge, Amber Carter, Bing Turkby, Fiona Milburn, Reid Perkins, Wheelers Books, Chris South, Lorraine Johnston, Dave Lane, Bonnie Mager and R Stewart-Allen.

Thank you all so much for your support. We are also grateful to our funders, InternetNZ and Land Information NZ.

Further Information

Find out more about Creative Commons licensing:
creativecommons.org.nz

Find over one billion Creative Commons licensed works:
search.creativecommons.org

Read more about NZGOAL: bit.ly/nzgovtoal

Download free resources to help you use Creative Commons at work: resources.creativecommons.org.nz

Investigate the institutional research repositories of New Zealand's tertiary institutions: nzresearch.org.nz

Search over 29 million New Zealand digital heritage materials: digitalnz.org

Join in the conversation about the Commons in Aotearoa:
nzcommons.org.nz

Any questions? Get in touch with Creative Commons Aotearoa New Zealand: admin@creativecommons.org.nz



Frequently Asked Questions

What is copyright?

Copyright is a form of intellectual property that is granted by the law automatically upon creation of a work. It prevents people other than the creator from making copies of (including adapting, sharing or performing) that work without the creator's express permission. Copyright applies online and generally lasts for the life of the creator plus fifty years.

What is a Creative Commons licence?

It is a way of giving others permission in advance to copy and reuse your works under certain specific conditions that you choose.

Do I have to pay or register to use Creative Commons?

No, the licences are free to use and are unregistered.

What does 'NonCommercial' mean?

CC's NonCommercial (NC) licences prohibit uses that are primarily intended for or directed toward commercial advantage or monetary compensation. This definition does not turn on the type of user: if you are a non-profit or charitable organisation, your use of an NC-licensed work could still run afoul of the NC restriction, and if you are a for-profit entity, your use of an NC-licensed work does not necessarily mean you have violated the term. Whether a use is commercial will depend on the specifics of the situation and the intentions of the user.

What does Creative Commons Aotearoa New Zealand (CCANZ) do?

We are the kaitiaki of the New Zealand Creative Commons licences that enable the voluntary sharing of copyright material in Aotearoa. We're a Kiwi remix on an international movement toward Open Access licensing and are here to support the use of Creative Commons licences in New Zealand.

How do I get a licence?

Visit creativecommons.org.nz and click 'Get Your Licence'. It's easy and completely free.

Creative Commons Licence Elements

There are four Creative Commons licence elements: Attribution, NonCommercial, NoDerivatives and ShareAlike.



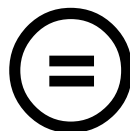
Attribution

This means that others must credit you as the original creator of the work. All Creative Commons licences require users to provide attribution.



NonCommercial

This means that others may not share, adapt or reuse use your work if their use is primarily intended for commercial advantage or monetary compensation.



NoDerivatives

This means that others can share your work, but they must not change it. Note that users still have the range of Fair Dealing rights granted to them under the Copyright Act 1994.



ShareAlike

This means that those who adapt or remix your work must use the same Creative Commons licence on any derivative works.

These four licence elements combine to make six Creative Commons copyright licences. They are free for anyone to use. If you want to know how to license your work using a Creative Commons licence, visit our website: creativecommons.org.nz.



Attribution

This licence lets others distribute, remix, tweak, and build upon your work, even commercially, as long as they credit you for the original creation.



Attribution-NonCommercial

This licence lets others remix, tweak, and build upon your work non-commercially with credit to you (their new works must also be non-commercial).



Attribution-ShareAlike

This licence lets others remix, tweak, and build upon your work even for commercial purposes, as long as they credit you and license new creations under identical terms.



Attribution-NonCommercial-ShareAlike

This licence lets others remix, tweak, and build upon your work non-commercially, as long as they credit you and license their new creations under the identical terms.



Attribution-NoDerivatives

This licence allows for redistribution, both commercial and non-commercial, as long as your work is passed along unchanged and in whole, with credit to you.



Attribution-NonCommercial-NoDerivatives

This licence is the most restrictive of our six main licences, only allowing others to download your works and share them with others as long as they credit you, but they can't change them in any way or use them commercially.