

Satellites and silence: a tale of recordkeeping in Antarctica

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When I first started the role of Information and Records Manager at Antarctica New Zealand, a few questions were running through my head, but strongest amongst them was whether or not I would be able to improve the staff “buy-in” to records management in the agency.

This is possibly what every Information and Records Manager is thinking. But then you add a phrase commonly heard in our office - the ‘Antarctic factor’ - into the mix, and things become a little more complicated.

Antarctica New Zealand is the government agency responsible for carrying out New Zealand’s activities in Antarctica, supporting world leading science and environmental protection. Its main office is based in Christchurch, and the other is at Scott Base.

I have been privileged to go to Scott Base. Going south helped me to understand why we do what we do. Antarctica is a masterpiece, an incredible untouched world, where silence becomes a drug. You go outside at 11pm because you don’t feel like sleeping, it feels like 6pm due to the position of the sun. You wander around, walking across a frozen sea that will thaw in a few months and have seals and whales bobbing up where you are currently walking. The ice is crunching under your heavy extreme-cold-weather boots. That is the only sound you might hear. Or perhaps a mother seal popping up through a hole in the ice to sleep or birth, or groaning to her pup. You might hear a flag frantically flapping or whistling in the wind. But otherwise eerie silence. And it is addictive.

Where else can you experience that? Okay... so maybe some of that silence you might find in certain locations in New Zealand. But this is different. Maybe it is the knowledge that you are almost all alone. Aside from your fellow base members behind you, and the McMurdo United States’ base just over the hill, there is not much between you and absolute isolation and ... the idea of loss, or of death. You recall Scott’s never-to-return expedition to the South Pole. The memorial cross on Observation Hill above you echoes this: ‘To strive, to seek, to find, and not to yield’.

The magnitude of the place, the extreme cold, the vast landscape, it draws you in and makes you want to keep coming back to get that same feeling of being small in a large world. I imagine it's a little bit like what it must feel like looking back at earth from space. It gives you some perspective on the unimportance of the mundane and trivial worries of daily life.



Figure 1: A walk across the frozen sea after dinner, © Antarctica New Zealand, photograph by Anita Kerr

This same isolation and remoteness comes with some limitations for Scott Base staff managing all of the logistics of science, engineering, and media events on ice each season. In an ideal world we would be using Microsoft Teams to help our teams and contractors to collaborate and share, and capture information. We currently use SharePoint on-premise as our Electronic Documents and Records Management System (EDRMS) and intranet. Teams and Microsoft 365 is on the long-term cards, but currently, because we are working in one of the most remote locations on earth, this is easier said than done. The same is to be said about any cloud platform.

Until recently, we had the very low bandwidth of 2Mbps (most NZ households have about 60Mbps!) That was recently increased to 6Mbps - and is delivered over a satellite data link that acts as our transmitter of all of our science data and information back to New Zealand. Due to the small connection, the latency, and naturally occurring sun outage, this can limit our access.

This limitation is part of what I would call the ‘Antarctic factor’ when trying to wrangle the records created in a remote location.

On starting my new job at the beginning of a busy new Antarctic Season (October-February), I realised I had a bigger task ahead of me than I had understood - I found myself in the middle of an IT Team, responding to SharePoint support requests in a frantic help-desk manner at a stressful time right at the start of the season. I was about to deploy to Scott Base to train new staff, to get an understanding of how my role would support those at Scott Base, and to set things up for the season ahead.



Figure 2: The NZ flag flies outside of Scott Base at sundown, © Antarctica New Zealand, photograph by Anita Kerr

In order to capture information on our EDRMS, and indeed to share it with the other office, we require a ‘replication’ tool. The tool takes data at one end (e.g. Scott Base), and transmits a copy to the other end (our Christchurch office), and vice-versa. We were previously using a replication tool that was outdated, had daily errors and data loss, and had changed so much that the current team weren’t sure which information was replicated and which was the only version existing at one end. It was challenging for staff seeking the ‘one source of the truth’ to do their work, but also for an Information Manager who was trying to ensure that same information was accessible, not duplicated, managed in context, and disposed of appropriately. We were also using an old version of SharePoint which was due to lose support from Microsoft.

My first project was to lead, in conjunction with IT, the upgrade of SharePoint and to implement a new replication tool. This was a huge success and we now have a fairly stable system, with only occasional data loss in some documents. This loss might occur if the data link is particularly overloaded, and someone at one end opens a document, edits information and saves it, while someone in the other office opens the same document before the changes have replicated and saves their work. The last person to save will 'win', and any data not successfully replicated in time will be overwritten by the last modified version. This is rare, but it can have an impact when the data relates to important logistics or engineering systems with requirements for our day to day functioning.

User buy-in is a complex subject, because it isn't often in relation to just one system, and the user needs and requirements across teams and systems may vary too. It is even harder to encourage buy-in when users don't trust your core records system, and will try to find work-arounds such as e-mailing documents back and forth (in our environment that only puts additional burden on the datalink, creating more issues).

Training new staff each season is a must and a core part of my role. This also makes the other hat I wear in my role - as the intranet administrator - a useful tool in directing staff to the right procedures or information that can support them in their good information and records management practices.

Many who work in the records-sphere will know all too well the throw-away comments like "Oh I just put my documents in Dropbox and share them that way". For a government agency this is not only a headache, but a challenge to find good alternatives. I am still hearing these comments, not usually directly. It is understandable that system users will try to do what is easiest and quickest to get their work done, so it happens. If we don't ourselves "buy-in" to what is required by our users, we will lose their engagement altogether as they go off and source other options, and then we either lose access to the information, or lose control over it - or both.

Then there are the risks that can come with the cloud services users often seek: access controls, security, compliance requirements like jurisdiction, and restricting the sharing of sensitive government records. Often these cloud tools enable sharing at the click of the mouse. All of these factors mean that we can often lose sight of the records (literally) as we (as an agency) try to make everything work better for the system users. It is a delicate balance.

There had previously been some embedded distrust about the SharePoint system, and perhaps still is. Because we also use it as an intranet, the overlay pointing to the pages and libraries beneath needs to be very clear. This is improving, but is an ongoing challenge.

A key piece of work I have supported was deciding on the best system to manage our health and safety reporting. I ended up designing and establishing a new system with the Health and Safety Manager, and with the help of an external developer. We created a SharePoint-based service, which works well for us in our remote environment. Any user can log in, click a button on our intranet home page, and log an incident, a near miss, or a hazard. All of the health and safety reports are immediately replicated back and forth so that we have a clear understanding of issues that need action either in Christchurch or Antarctica. These are then quickly communicated to staff in each office via a workflow and an e-mail triggered by the health & safety assessors of the reports.

You might wonder what a traditionally file-management based role would be doing delving into the business-analyst sphere, but as many of you will know, this is how it is for Information Managers these days. We must become the master of many systems, and have a solid understanding of much legislation; Health and Safety Privacy, OIA, Copyright, Official Information Acts, and any other legislation that dips into records management requirements).

My main focus has been on improving the clarity and usability of SharePoint as our central EDRMS, by mandating no more paper records, and encouraging that all records - including important e-mails (via Harmon.ie) - are uploaded into the system with related records. It has also been important to have strong Information and Records Management policy and procedures. I have focussed on improving our core tools such as the health and safety reporting, a contracts management system, and policy and procedure libraries to act as one-stop shops where drafts and approved versions can be captured and easily accessed. I have also established a basic travel booking system, an engineering change management system, a training application system, created workflows to enable approvals, and have centralised our master templates which are now usable across all of our libraries.

Many development projects later, including a SharePoint upgrade and intranet makeover, and we are certainly in a better place today, but we are not there yet. Another focus has been using the government's template - the Information Asset Catalogue (Register) as a way to capture what records we have, including those that are outside of our core EDRMS. I was recently handed a USB stick that had some important data on it that had been captured at the end of a previous relationship/project we had with a now defunct Agency. This was the first time I had been made aware that we 'owned' this content. It had been in someone's desk drawer. Metadata about this reference material is now captured in the Register.

It also won't be news to any of you that I am at times still trying to locate old contracts (when requested) and other information that appears to have been "lost". There is a gap between the proliferation of electronic records that started building pace in the 1990s (and was being captured on hard-discs, CDs, and random databases), and around 2005. The then new Public Records Act legislation required better management of public records, and put strength into the need for a dedicated Information/Records Manager role, and dedicated systems to capture born-digital records appropriately.

My latest project has been a managed Electronic Disposal project. In the last year I have managed to cut over 100 (out of some 900) document libraries from the system, and to destroy over 12,000 items which had previously been deleted by our users. We had retained these not because we had to, but because we had no managed electronic disposal process. This disposal work is still underway, to close our old project libraries, and prepare the records for ongoing, manageable disposal. This work, along with ongoing development of functional intranet home pages is helping to make our documents easier to find, reference, and more importantly - to capture.

The previous system was deterring our staff from engaging, or even knowing where to engage. It is better now and hopefully always improving. Microsoft Teams and Channels might be a lifesaver in terms of improved engagement, though I am well aware of the new challenges that will come with that and I will likely be learning from all of my colleagues who are already going through that process in other agencies.

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Whilst I do not have everything under control in the record-sphere (and I imagine many of us feel this way) - every step sees further progress towards our goals. The job of managing information and records is never done, especially not in a world of increasing data.

A records colleague said to me “you can’t control all of it, all you can do is embed good process into the culture”. I wrote that down on a post-it note (I am a good Records Manager) and have tried to remember it since.



Figure 3: Anita Kerr on Observation Hill, Mt Erebus in the background,
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