

CASE STUDY

AHRC implements a fully automated EDRMS, using AI and machine learning.



**Australian
Human Rights
Commission**

CUSTOMER PROFILE

Australian Human Rights
Commission

INDUSTRY

Federal Government

SIZE

150+ Employees

TECHNOLOGY USED

Records365

Machine Learning Module

SharePoint Online

AUSTRALIAN HUMAN RIGHTS COMMISSION IMPLEMENTS INTELLIGENT RECORDS CLASSIFICATION

According to the National Archives of Australia (NAA), the Commission is the current thought leader of records management in Australian Government. Through a corporate partnership with RecordPoint the Commission implemented an electronic record and document management system (EDRMS) on SharePoint Online with RecordPoint Records365, utilizing RecordPoint's AI and machine learning technologies to classify records without the need for staff input.

SURVEYING THE LANDSCAPE

Australian Human Rights Commission (the Commission) is Australia's national human rights institution. An independent statutory organization in the Attorney-General's portfolio that promotes and protects human rights. Although a small agency, AHRC has a reputation for early strategic adoption of new technologies. In recent years AHRC has been a leader in government with their migration to Microsoft Office 365 and Azure.

Prior to this new EDRMS solution, in production since February 2019, the Commission was drowning in a sea of duplicates, tangled in nested folders and perplexed by lost documents. Funding shortfalls and other challenges saw the Commission unable to implement an EDRMS solution that was viable.

Researching options, the Commission headed by Ron McLay, Chief Information Officer and Ryan McConville, Information Manager, incorporated the Department of Finance's study into the failings of the traditional EDRMS. In particular, the report suggested that records management should be automated, rather than a being a manual task for public servants. Inspired by the report, the Commission set out to implement a fully automated EDRMS, using artificial intelligence (AI) and machine learning. This would form the basis of RADICAL – Record And Document Innovation & Capture - Artificial Learning.

RADICAL is the first project of its kind in Australia.

An EDRMS implementation with AI addresses key problems faced in running an effective EDRMS. AI reduces the scope for human error, while increasing the volume, accuracy and consistency of records classification. The simple user interface has driven high user uptake and is seen by staff as a useful tool rather than a burden.

The Commission avoided customization and add-ons for RecordPoint and SharePoint Online, focusing on configuration instead. A common problem agencies have experienced is in the customization and use of third-party add-ins to suit existing or outdated business processes. This often resulted in systems that were difficult to use, inefficient and unreliable, and hard to upgrade with user uptake suffering accordingly.

Harnessing the native functionality of RecordPoint and SharePoint translated to improved business processes. The Commission also incorporated simple navigation for easy browsing of records, supported by a powerful search feature in Records365. The RADICAL solution has been in production since February 2019 and are currently staging deployment across the organization.

OUTLINING A SOLUTION

RADICAL will greatly increase the efficiency of the Commission's work through streamlined and digitized business processes, improved corporate reporting, better retrieval and reuse of their information, and ensuring timely, compliant disposal of dated or low value records. These efficiencies will allow the Commission to deliver better service to the Australian public as the Commission conducts its human rights compliance, education and public awareness activities.

The successes seen with the Commission's project RADICAL also demonstrates to other government agencies that AI/Machine learning is a viable, affordable option for automating records management in the public sector. This is significant, as historically the high costs of implementing AI-based systems has been beyond the reach of most government agencies.

RADICAL also aligns with the key outcomes of the Digital Transformation Agency's (DTA) Digital Records Transformation Initiative, namely to:

- make effective use of the smart technology that has emerged, but not yet been incorporated, into records management practices;
- improve productivity using automation;
- increase the re-use of information assets across Government; and
- increase compliance with regulations for the management of Australian Government records.

Before RADICAL, the Commission managed its corporate records in paper files and electronic file shares. The paper file was considered the primary file, while electronic copies of those files were kept for ease of reference and sharing.

The process of creating and sentencing paper files was time consuming and relied on staff members with limited experience, and often no interest in records management, to make accurate decisions about the retention and disposal of valuable corporate records.

When planning RADICAL, a key goal was to remove records management decisions from staff and allow them to focus on their core work. RADICAL needed to provide 'transparent records management' and limit the potential for inaccurate or inconsistent classification.

Many commercial EDRMS platforms are feature rich but can be difficult to use and these features may not align with actual business needs. Agencies will often compensate for these shortcomings through customization and add-ins.

The Commission's approach was 'configuration over customization' as recommended by the DTA, focused on human-centered design. Staff were consulted extensively on current needs and pain points. When possible, native Records365 and SharePoint functionality was preserved, limiting the need for end user training and burdensome change management.

APPROACHES TO IMPLEMENTATION

The project methodology followed the National Australian Archives' (NAA) recommended approach to implementing an EDRMS. The initiation phase consisted of an exhaustive review of the Commission's existing information management environment. The review included:

- an assessment of the Commission's information management policies and procedures
- a review of the Commission's 2003 agency-specific records disposal authority
- the documentation of gaps in practices in comparison with the NAA's Digital Continuity 2020 Policy, with the assistance of the Check-Up 2.0 self-assessment tool.

The Commission developed a business case that defined how an EDRMS could:

- improve record and document management practices
- comply with the Digital Continuity 2020 Policy (DC2020)
- engage with stakeholders
- engage the Executive level staff as major stakeholders
- create and utilize a steering committee
- staff the project team with the appropriate skills and knowledge, including an experienced records manager
- identify and address risk associated with implementing the solution
- mitigate the risks such as change management/user uptake and technology failure through extensive stakeholder consultation and testing and avoiding customizations and use of third-party products.

Previous attempts to launch an EDRMS within the Commission failed for a variety of reasons, including resourcing issues and failure to gain Executive support. When planning RADICAL, the Commission secured the sponsorship of the Chief Executive and ensured that a senior executive was assigned to the project.

Taking a human-centered design approach to the project ensured:

- ease of use really was the overarching principle of the implementation and not a mere project cliché
- no mandatory actions or metadata would be required by users
- no use of third-party products or system customizations
- records management was automated and transparent to the user, utilizing rules and machine learning
- users were extensively consulted to ensure that the system met their business needs, improved processes and enhanced corporate reporting
- extensive piloting of the new system

Consulting with NAA and the Department of Finance regarding their proposed solution, and with several other agencies to identify their points of pain and lessons learned, the Commission built their system to avoid these pitfalls wherever possible.

The implementation phase involved:

- a detailed analysis of existing systems and record holdings
- developing a new information governance framework and agency-specific records disposal authority
- developing and implementing a records migration strategy
- extensive collaboration and testing with the RecordPoint AI developers
- development and testing of the SharePoint platform that Records365 manages
- working with a specialist change management facilitator
- training end users and providing ongoing support on go live
- implementing an agreed security model
- gaining agency-wide approval for the system including the business rules and for use of the machine learning algorithms
- training the machine learning algorithms
- implementing and rolling out the system

RETHINKING TRADITIONAL RECORDS MANAGEMENT

Records classification involves categorizing records by function and activity as set out in the Administrative Functions Disposal Authority (AFDA Express).

Traditionally, the classification process has been performed manually by records officers. The manual element of classification can be time consuming, can lead to inaccuracy and can be disruptive to staff. Previous methodologies to automate records classification uses rules trees that classify records based on their metadata and saved location. However, rules trees need to be built and maintained by experienced records officers and rely on end users to apply accurate metadata and save to specific locations.

Leveraging AI in this process solves many of these problems by combining a minimal rules tree with a machine learning model. If a record cannot be categorized by a rule, the machine learning model classifies the record based on its contents. This system eliminates the need to maintain complex rules trees, the reliance on metadata and record location.

The RADICAL project team worked with RecordPoint's AI developers to create a statistical model that can classify records against AFDA Express and the Commission's agency-specific records disposal authority.

The statistical model is developed by taking a set of records that have been manually classified and applying Natural Language Processing techniques to normalize the document content into vectors. The model is then trained using algorithms.

After an initial training period, the RADICAL statistical model can categorize individual records with an accuracy of 80%. The Commission expects this accuracy will increase over time. RADICAL also re-categorizes records each time they are edited, ensuring the classification is always current.

Although the machine learning model will initially work in conjunction with a rules tree, as the accuracy of the model increases the rules will be gradually removed and the Commission will rely solely on machine learning to manage their corporate records.

RADICAL provides multiple, tangible benefits to the Commission such as:

- automated records management that is accurate, consistent and compliant
- compliance with DC2020
- document versioning, which reduces duplication
- enhanced collaboration and sharing
- streamlined handling of Freedom of Information (FOI) requests
- Power BI reports for senior executives
- reduction in staff time spent on records management
- effective and efficient records search and retrieval
- real-time video transcription
- automated image cataloguing

EARLY RESULTS

As most Australian Government agencies share the same records management requirements, the Commission feels that the machine learning model provided by RecordPoint and used by RADICAL is a 'genuine game-changer' and will allow other agencies to experience equivalent 'gains in efficiency, productivity and cost reductions.' The Commission sees themselves as trailblazers in government for the use of AI in records management and are excited to share their experiences as the current thought leaders of Australian Government records management.

RADICAL has had a positive impact on the Commission and its stakeholders by:

- delivering upon the objective of 'transparent records management'
- increasing the accuracy and compliance of information management practices by reducing the scope for human error
- reducing the time and costs associated with responding to FOI requests through improved search and retrieval
- gradually reducing physical storage costs, currently averaging \$17,000AUD per annum
- reducing digital storage costs
- increasing collaboration between Commission business units through shared document libraries and the establishment of an 'open by default' information access policy, where access to records is restricted only to protect personal privacy or sensitive information
- improving business processes through electronic workflows, document versioning and automated metadata tagging
- minimizing the impact of potential data breaches through regular scheduled records disposal

Initial estimates by the Commission suggest that staff using RADICAL are seeing at least a 5% increase in productivity. Additionally, the accuracy of capture and classification by the algorithms is improving, and by estimates 'it already exceeds the accuracy of our manual classification.'

Lastly, the Commission showcases that a technologically advanced solution can be implemented without significant costs. 'We estimate that a traditional EDRMS would have cost the Commission 3 or 4 times as much as RADICAL.'

CHALLENGES AND LESSONS LEARNED

The Commission consulted extensively with other agencies on their EDRMS projects, which was invaluable in helping avoid similar mistakes. These consultations influenced their choice of a human-centered design approach and highlighted the importance of not attempting to recreate old business processes in a new system.

A 'greenfield' implementation was a strategic advantage to the design and change management process. RADICAL presented an opportunity to use an advanced AI-driven platform to deliver an easy, modern and powerful platform without staff preconceptions and complex data migration.

Compiling a training dataset for the machine learning model proved to be another challenge. In order to provide a learning dataset for Record365's learning algorithm, a minimum of 1,000 electronic records was needed, individually classified against each class in AFDA Express and the Commission's agency specific authority.

As the Commission's primary files are paper, no electronic records had been previously classified. While a problem at first, this was also an advantage as the Commission could ensure the dataset had been classified accurately and consistently, in turn increasing the quality and accuracy of their model.

Another challenge was that the model accurately classified records according to their content but cannot yet factor in the context in which they are created. For example, a legal advice about a procurement process will be classified under the AFDA Procurement function rather than Legal Services, as its contents primarily concern procurement. Additionally, where the model identifies the correct function, identifying the correct disposal class often requires a subjective assessment beyond the capability of the Commission's current model.

However, in working with the RecordPoint team, the Commission was able to address these scenarios and have several promising options to test.

NEXT STEPS

With the Commission's full backing of Project RADICAL, a prioritized rollout schedule based on risk assessment and mitigating operational impact is underway.

In conjunction with completing the rollout, the next steps including the machine learning model

- testing machine learning enhancements with RecordPoint including the use of deep learning algorithms
- digitizing paper-based processes including Commission Meeting papers
- making greater use of Power BI to visualize and monitor key business information for senior staff
- reducing storage of paper files, either through digitization or regular sentencing.

The Commission is also looking for opportunities to further leverage Microsoft's machine learning technology to improve the accessibility of its records. For example, the Commission has been testing machine learning services to transcribe audio-visual records to text, and to translate some publications to Easy English.

Already a reference agency for cloud adoption, the Commission looks to share their knowledge and experience from Project RADICAL with other agencies.



ABOUT RECORDPOINT

Founded in 2009, RecordPoint is a global records management and compliance solution provider and pioneer of cloud-based record keeping. As recognized by Gartner in 2018, RecordPoint is leading the way in the content services segment and providing organizations with the ability to truly manage records from across multiple services and platform using a single, federated solution.

With support for Office 365, SharePoint, File Shares, E-mail, Box, Dropbox, G-Suite and many other applications, RecordPoint is demonstrating how easy federated compliance can be with a modern, trusted cloud solution.



AMER - Seattle
Phone +1 425 453 1461

APAC - Sydney
Phone +61 2 8006 9730

EMEA - London
Phone +44 117 318 0540

For inquires
sales@recordpoint.com
partners@recordpoint.com
support@recordpoint.com

