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| **Tertiary ICT Excellence Awards Submission Form** |
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| **Submitter Name:**  | Craig Murdoch |
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| **Abstract Title:**  | Tuwhera showcases – enhancing research impact through sustainability and re-use. |
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| **Describe the technology or process that is core to your submission. Please be precise in describing exactly why this should be considered for the awards (max 500 words).**  |
| Tuwhera “Showcases” are an innovation built on top of the DSpace platform on which AUT hosts its institutional research repository. They enable AUT research centres and groups to shine a light on the corpus of their world-class research, grow their impact and foster collaboration, community and investment. Showcases are tightly-focused collections of research designed to appeal to a specific group or community. Showcases allow research centres, schools and more nebulous groups to craft an identity around their research outputs, by separating the content from that of the rest of the repository and customising the user interface. This grants the research context, as part of a dynamic, living research culture, engaged with communities outside the institution.The first showcase released, in December 2024, was for the “Tourism for All New Zealand Research Group” - <https://openrepository.aut.ac.nz/collections/7c74861d-a720-467a-bef2-464286c0224e/home>. It was released to coincide with a significant event involving industry leaders, government and overseas visitors and was extremely well-received.Showcases have been built in a collaboration between Te Mātāpuna the AUT Library, the ICT Application Support team, and the Catalyst.NET Rōpū Kohinga team. There were 3 main goals with showcases:1. Respond to the needs of AUT researchers to see greater impact from their existing research outputs (like journal articles, conference papers, and theses),
2. Utilise a lightweight, easily customisable and re-usable solution, which could be adapted with ease to multiple research centres and groups,
3. Contribute back to the DSpace community enabling others to use and build upon the concept.

While this is a long-term project which will see multiple showcases released over time, we have achieved all three goals since starting out in mid-2024. One showcase has been live since December, a second is about to be released, and 2 more are planned for launch before the end of the year.Showcases build on the “open-source first” approach of the AUT Library, and our successful partnerships with AUT ICT and Catalyst.NET. These enable us to be creative and flexible, both in our response to specific requirements of our university stakeholders, and to Te Kete, the AUT Strategy.We believe this is a great example of creative and sustainable re-use of existing university taonga (in the form of research outputs), and of our contribution to open source communities. As such we submit Tuwhera Showcases as a contender for the Tertiary ICT Excellence Awards. |
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| **Briefly summarise how your submission supports and is valued by your organisation. Describe the customer or business benefits of the technology or process. For example, which key strategies did the enhancement meet, what business problem needed to be solved, or perhaps how does a key customer group benefit from a new or improved delivery process. (max 500 words).** |
| Research groups approached us knowing they had lots of great content available in the AUT repository, but were struggling to realise the full benefits of that content. The existing institutional repository interface created real issues around discoverability, presentation and the ability to make their content stand out from the crowd. They talked to us about their goals around utilising their existing research in ways that increase impact, including:* encouraging funding streams;
* disseminating research outside the institution to practitioners, industry and community;
* establishing an identifiable and attractive “front door”;
* and fostering communication and cooperation.

These goals fit well with AUT’s strategy Te Kete, particularly in the areas of knowledge application and accelerating research impact. Our role as guardian of AUT’s rich collection of research outputs is an important one. The standard DSpace interface allows us to fulfil important requirements such as preservation, storage and management of research outputs, and providing free-to-read access to users. Showcases are in essence a way to extend that base functionality by collecting and displaying content in a way that research centres can proudly assert to funders, communities and government – this contributing to increased impact and application of our research.Te Kete recognises both AUT’s status as a university of technology and our desire to develop creative, innovative and sustainable technology solutions. Our design decisions around showcases were driven by our response to those goals and the added need to be effective stewards of AUT resources. In the process of developing showcases we have been guided by Te Aronui, AUT’s Te Tiriti framework. AUT’s values – pono, tika and aroha – are reflected in the cooperative approach we took, involving not just researchers and our partners, but also the DSpace open-source community and other institutioons. We worked hard to foster the strong relationships we maintain with our partners, and to make showcases as simple as possible to use for researchers and librarians, allowing them to focus on their core work rather than on the technology. |
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| **Describe the broader applicability of the enhancement across different teams, departments, or institutions and how it might support long-term transformation and adaptability in the IT landscape.** |
| Showcases have been designed to be deliberately lightweight to implement and maintain. No server side work is required, aside from specifying a new showcase’s name in one config file. All other customisation is done via the DSpace webadmin interface, primarily using HTML and CSS, and standard content mapping features. This is part of the standard workflow of a librarian working in DSpace and so requires minimal additional learning or technical skills. Showcases are thus sustainable both in terms of staff time and expertise, both in the library and in ICT. They are quick to implement and content is simple to add and maintain using existing University processes including the Elements research management system.Showcase were built by creating a new “theme” which sits on top of the standard DSpace front-end Angular interface. Components were re-used wherever possible, and new components built where necessary. This makes showcases highly sustainable through upgrades and patches as the core code is only lightly modified.The showcase code itself is easily shareable, and will be familiar to any user of DSpace 7 and above, and anyone familiar with Angular. We hope that in future the showcase functionality will become part of the core DSpace code, or be available as a plugin. We believe that our general approach to the showcase development supports long-term growth and sustainability by allowing teams with limited ICT expertise to implement and build upon a successful solution. |

**Describe how the project was taken from vision/idea to delivery, what challenges were met and how they were handled on the way (max 500 words).** |
| While working through the vision for showcases we were fortunate to be involved in a similar project which helped clarify our goals and approach. “~Ia the Rainbow Collection” was, in a way our first showcase. However ~Ia, a standalone collection of AUT’s rainbow research, had:* significant funding
* a requirement to be standalone in order to provide safety to a minority community
* a need to be expandable to allow the addition of non-AUT content in the future
* a significant design requirement
* and as such was built by harvesting content from DSpace into another software platform, VuFind.

The success of ~Ia could have created a rod for our own backs – other groups wanted their own ~Ia, but didn’t have the resources, or realistically the need, to build something as extensive. We worked closely with Catalyst on designing a templated system, built in a lightweight fashion on top of existing DSpace technology, with the goal of achieving as much as possible within existing constraints. Catalyst are experts at listening to their customers and researching, recommending and then building appropriate solutions.The system of charging at Catalyst – essentially pre-purchase of support and development packages – enables us to manage cost effectively and achieve real return on investment. Not just for showcases but for much of our other software requirements we are able to use available funds to cooperatively build solutions, rather than buy multiple, expensive proprietary systems which may only support part of our vision, and which are unlikely to be developed specifically for AUT. As much as open source is a benefit in that sense, it can also be a challenge working with the DSpace community. Like all open source communities it is made of really varied group of committers, developers, planners and users. It can sometimes seem difficult to get understanding and support for a new concept – but the benefits of working closely with the community are extensive. |
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| **Please detail any technologies that were implemented to deliver your enhancement or supply any other information you think may assist your submission (max 500 words).** |
|  Some quotes from Professor Alison McIntosh, leader of the Tourism for All New Zealand Research Group:“Thank you so much for this incredible showcase! Amazing work!”“I would like to extend to you all a huge thank you for helping us promote the Tourism For All NZ Research Group’s work at yesterday’s very successful event. A particular highlight for me was seeing a key industry attendee scanning the QR code!!! [so they could browse the site later]”“Thank you so much for helping us connect our work with our research stakeholders and communities” |
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| **Please supply the name, title and contact details of two people whom our judges may contact as referees. Ideally the referees should have knowledge of the implementation and its benefits from a customer or Institutional management perspective.** |
| Kim TairiKaitoha Puka University Librarian, AUT Universitykim.tairi@aut.ac.nzKathryn TyreeServices Manager, Rōpū Kohinga, Catalyst.Net Limitedkathryn@catalyst.net.nz |
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| **Please list all technology suppliers involved in the project.** |
| **Catalyst.Net Ltd, Catalyst Rōpū Kohinga, DSpace open source community** |