ICT Project Nomination Form 2011

The teams choose projects based on this short description. There is no guarantee that your project will be taken, make it sound as interesting and as educational as possible.

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**Project Title:**
Marine Community Profile Metadata Entry Tool

**Client retains Intellectual Property:** No – but would like to licence under Creative Commons BY

**Confidentiality Agreement required:** No

**Project Description:**
Discovering data over the internet can be a complex and long-winded process. To get precisely what you want depends on the ‘discoverability’ of the data or datasets. ‘Discoverability’ means the data originator has to provide sufficient information about the data for search engines to pinpoint the data you are searching for, and ignore data not of interest.

The Australian Ocean Data Network (AODN) is a project run out of UTAS which aims to provide Australian marine scientists with a ‘one-stop-shop’ for marine-related data. To do this all data put up to the internet must be readily discoverable. The information describing a dataset is called metadata (or ‘data about data’).

The Australian marine data community utilises a standard for metadata called ISO19115 (see http://www.aodc.gov.au/index.php?id=37). Good metadata allows for parties to find out how to access, view and reuse data. Metadata is also a vital component for good data management practices.

The AODN utilises the open source technology Geonetwork (http://geonetwork-opensource.org/) catalogue for the AODN Mest (Metadata entry and search tool) (http://mest.aodn.org.au/geonetwork/srv/en/main.home) to harvest metadata records from other parties, and to also document any other datasets and other elements – using the ISO19115 metadata profile. Whilst the geocatalogue allows for users to create metadata, the interface to do so is not very easy to understand.

This project would require students to build a metadata entry tool that is compliant with the requirements of the ISO19115 marine community profile which creates metadata records that can be ingested by the AODN Geonetwork catalogue. The end product would need to be open sourced, and able to be deployed at other institutions (thus stand alone) – such as parts of this university, or Australian Government Agencies.

There are some similar tools available, but none have been developed for the marine community profile, and they are also not very easy to use. See ANZMet lite (http://www.osdm.gov.au/Metadata/ANZLIC+metadata+resources/ANZMet+Toolkit+%28final+draft+-+07.2009%29/default.aspx)

The tool itself would allow for very easy entry of metadata, with appropriate links and descriptions to terms and definitions as determined by the Marine Community Profile. It will allow for minimum (mandatory) metadata entry (as set by the standard), but will also allow
the end user to write full metadata records. To ensure accuracy, the tool will allow parties to write records, but which will require a different individual to check the record before it can be published into the AODN Geonetwork catalogue. As a part of this process, the tool will automatically check for mandatory content, and only allow for the subsequent checking of records that have reached the required level of information.

The tool will contain look-up definitions so that records can be pre-populated as required for particular elements. For example, once an author has completed a record, their details can be re-used again, without re-entry. Records will be allowed to be cloned, so that minor modifications can be made and new records created. Licence conditions will be pre-populated with the set of creative common licences.

The end product will need to be thoroughly documented, and available on the internet, with appropriate user and installation guides and properly described definitions (see similar http://gcmd.nasa.gov/User/difguide/difman.html).

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**Project Technical Information:**

XML, Xpath, Geonetwork, web services, user interfaces, (possibly web application if they choose to implement this as an online version).

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