



For Warumungu, a pilot version of the web app, with a small subset of data, has been developed (<https://coedl.gitlab.io/wpd-pilot/>; pictured left). This mobile-friendly web app is generated by a 'data processing pipeline', hosted on GitLab, which continuously re-generates the end product(s) based on changes to data in a Google Sheets document (<https://goo.gl/G5fPYs>). The pipeline is a simplified version of pipelines already in active use (e.g. within the Warlpiri Dictionary Project; 2017–present); note that Google Sheets and GitLab are freely available, collaboration-focussed products.

The essence of this project, then, is not to invent a new, untested method or end-product for delivering language learning materials, but rather to make costly production processes more accessible using only free software, and document the production workflow. For this reason, we will test and refine the usage instructions, first developed through transforming the Warumungu picture dictionary, by subsequently processing the Kaytetye picture dictionary data. Similarly, the usability of the web and mobile apps will also be refined by working with a research assistant familiar with user experience (UX) design and testing procedures.

Under the principle of data interoperability, the picture dictionary data transformed (or newly-collected) will also be automatically rendered into standard formats (e.g. Toolbox, FLEEx, InDesign XML). Consequently, the data may be used to enrich pre-existing projects or later integrated into a more comprehensive lexicography project, for which funding and community enthusiasm may be garnered through an initial smaller-scale, digital picture dictionary project.

As the IAD Picture Dictionary Series, including the illustrations and data template, are existing copyrighted material, we have begun negotiations with IAD Press for their re-use as well as release for non-commercial educational use. Finally, to ensure the continued accessibility of the web app beyond CoEDL, we are also in conversation with the Australian Institute for Aboriginal and Torres Strait Islander Studies (AIATSIS) about a long-term hosting arrangement.

Why this research is of relevance to CoEDL (Max 300 words)

This project aligns with the goals of several CoEDL programs and threads. First, it connects with the Shape program in helping demonstrate—in a particularly accessible manner—the diversity of languages within Australia, and provides a workflow model for similar endeavours for languages elsewhere. Second, it connects with the Learning program in helping provide Indigenous language learning resources which may be more easily and affordably deployed within both schools and language communities. Third, it connects with both the Technology and Archiving programs in that we are developing and helping others adopt modern data-engineering practices within Indigenous language lexicography and, in turn, facilitating the production of interoperable, metadata-enriched, deposit-ready forms of the language data.

The project also complements ongoing work by other CoEDL members and affiliates across a range of locations. First, being based at UQ, and making use of the UX design and testing expertise within the Co-Innovation Research Group (directed by Prof. Wiles), the project offers an opportunity for its members to become even more closely acquainted with the educational and social contexts in which Indigenous languages are used. Second, the creation of interoperable, structured dictionary files will also directly contribute to work being done by Jesse Tran and Caroline Jones (WSU) on simple-to-use software for the generation of dictionary websites from structured dictionary files (i.e. for subsequent, more-comprehensive lexicography projects arising from the picture dictionary data).

As both a trans-disciplinary and trans-organisational project on Indigenous languages, bringing together members and affiliates working across multiple CoEDL programs and threads as well as stakeholders from IAD Press and AIATSIS, this project further provides a well-timed opportunity to publicise globally the unique