The Arts & Humanities Research Council (AHRC; Grant ID:AH/W007290/1), United Kingdom Lexical resources for Enggano, a threatened language of Indonesia

Preserving the Enggano Language: A Digital Dictionary Approach

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Background

- Indonesia has more than 600 ethic groups (250 M people)
- 719 mother-tongue language \rightarrow 13 have vanished
- Mother-tongue language:
 - Beliefs
 - Philosophical values
 - Rules
 - Traditions



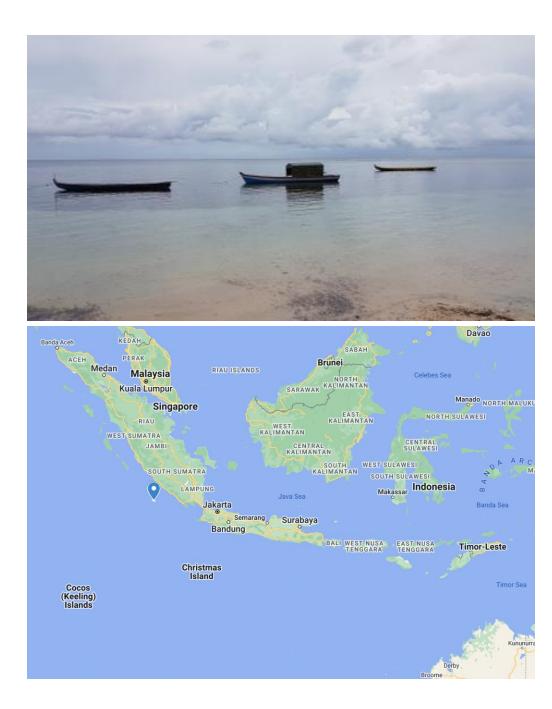
Not only language structural aspect, but cultural and historical knowledge

- Less young generation utilize the mother-tongue language
 - National language
 - Regulation
 - Limited resources



Enggano Language

- Located off the southern coast of Sumatra
- Enggano language is a mother-tongue language that is used by locals of Enggano island
- Enggano is classified as "threatened": only the elder generation are fully competent and fluent speakers.
- Spoken by only 1,500 out of 4,000 people on Enggano Island, off Sumatra's west coast.
- Actively used in three villages: Meok, Apoho, and Malakoni.



Project Aims and Significance

- To preserve, protect, and continue the use of the Enggano language by adopting modern technology that can be utilized by the younger generation
- Not only people that live in Enggano island but also others who live outside the island
- Develop a digital tool to learn, preserve, and continue the language
- Focuses on
 - Developing <u>a knowledge acquisition management system</u> that allows multiple users at the same time to contribute to populating data to the system.
 - Developing <u>a web-based system</u> for historical and contemporary Enggano language
- The extensive use of Information Technologies among people

Problem Statement

- Challenges:
 - Language Extinction: A shift toward Indonesian threatens native language use.
 - Educational Barriers: Schools lack textbooks or materials in Enggano.
 - **Generational Disconnect**: Younger generations find it difficult to engage with their linguistic heritage.
- Objective:
 - Develop a digital dictionary to address these issues and provide a sustainable resource

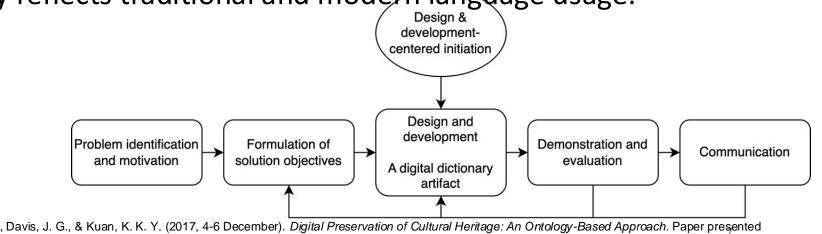
Significance of Digital Dictionaries

- Role in endangered language preservation
 - Accessibility: Enables communities and researchers to explore and preserve lexical resources.
 - **Community Involvement**: Encourages collaborative input for accuracy and relevance.
 - Learning Support: Provides tools to teach younger generations endangered languages.

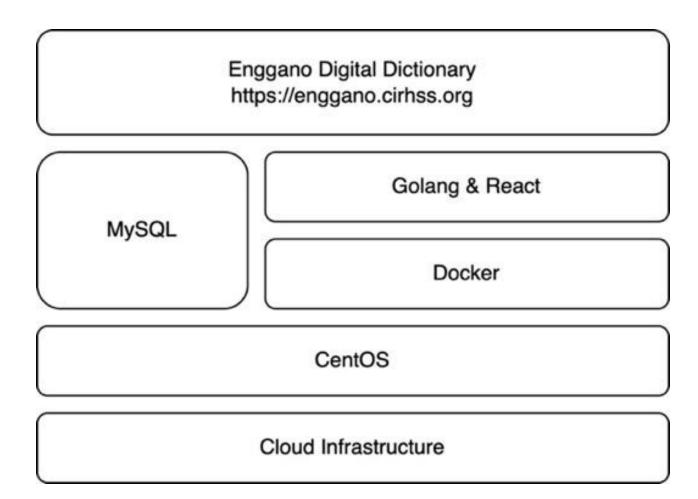
Design Science Research Methodology (DSRM) Approach

- Iterative Design: Develop, test, and refine through multiple cycles.
- **Community Feedback**: Continuous input from native speakers to improve functionality.
- Participatory Design:
 - Engages local speakers via workshops and interviews.
 - Ensures the dictionary reflects traditional and modern language usage.

nce on Information Systems, Hobart, Australia.



System Architecture





Key Features

• Multilingual Support:

• Enggano, Indonesian, English, and German (for compatibility with Kähler's dictionary).

• Interactive Design:

• Search functionality, contextual examples, and word derivation.

• Community Contribution:

• Enables users to add or refine entries, enhancing the database over time.

• Educational Integration:

 Supports learning through features like search optimization and word suggestions.

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Conclusion and Future Work

• Achievements:

- Developed a functional and accessible digital dictionary for Enggano.
- Engaged local communities in the design process, ensuring cultural relevance.

• Impact:

- Promotes language preservation and revitalization.
- Supports linguistic and cultural sustainability.

• Future Directions:

- Develop a mobile based application
- Expand database content and integrate NLP tools for advanced functionality.
- Foster ongoing collaboration with Enggano speakers and linguists.

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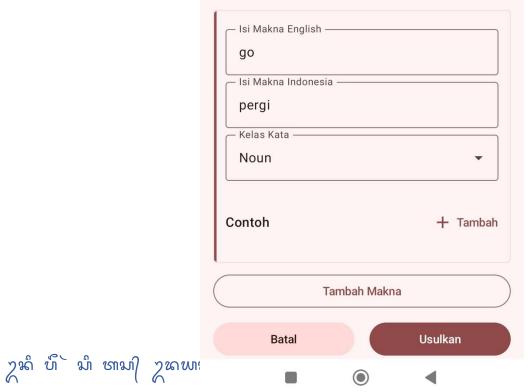
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