

# AI Summaries Samples

## Designing Digital Solutions for Preserving Penan Sign Language: A Reflective Study

DOI: <http://doi.org/10.1155/2016/4174795>

KEYWORDS: Oroo' signs; Long Lamai; Long Kerong; Community members; Lamai community; Sign language; Toro journey;

ACRONYMS: Participatory Design (PD) ;

Sign language: [Sign language] A sign language is a language which chiefly uses manual communication to convey meaning, as opposed to acoustically conveyed sound patterns. This can involve simultaneously combining hand shapes, orientation and movement of the hands, arms or body, and facial expressions to express a speaker's thoughts. Sign languages share many similarities with spoken languages, which is why linguists consider both to be natural languages.

### Summary (300 words)

Indigenous peoples have the right to revitalize, use, develop and transmit to future generations their histories, languages, oral traditions, philosophies, writing systems and literatures, and to designate and retain their own names for communities, places and persons. Besides spoken and written languages much less documented and well-known are the sign and secret languages of rainforest inhabitants, which are made out of combinations of twigs, leaves, and other jungle products. Penans' sign language Oroo' is one of the examples. Oroo' is an extremely sophisticated asynchronous signage language of the nomadic Penans in the rainforests of Malaysian Borneo. Through different combinations of signs, various messages and narratives are constructed, such as call for help, warnings of danger (snakes, old branches, and enemies), instructions (meeting points and times), and information about whereabouts of food, animals, humans, and houses. According to Moseley, "The loss of indigenous languages is also detrimental to biodiversity, as traditional knowledge of nature and the universe, spiritual beliefs and cultural values expressed in indigenous languages provide time-tested mechanisms for the sustainable use of natural resources and management of ecosystems, which have become more critical with the emergence of urgent new challenges posed by climate change". In 2014, the Institute of Social Informatics and Technological Innovations (ISITI), Universiti Malaysia Sarawak (UNIMAS), and Long Lamai community with the support of Information Society Innovation Fund Asia (ISIF/APNIC) initiated a project to digitalize and preserve the Oroo'. The authors present the background, research method adopted, and the reflective analysis of the documentation and digitalization of Oroo' signs project. The first part of the paper discusses a background of the partner communities and the Penan sign language Oroo' (hereinafter referred to as "Oroo"). The authors then provide the research and project context as well as our documentation and digitalization efforts of Oroo', the sign language of the Penan.

---

## Highlights

- *Who? Where? When?*

Tariq Zaman et al. from the Institute of Social Informatics and Technological Innovations Universiti Malaysia Sarawak , Kota Samarahan Malaysia, have published the paper: [Designing Digital Solutions for Preserving Penan Sign Language: A Reflective Study](#), in the journal: *Advances in Human-Computer Interaction* of 30/Mar/2016

- *What?*

In this paper, we present the research process and reflections of a multidisciplinary community-based research project on digitalizing and preserving the Oroo' sign language. The study has been guided by Long Lamai and Long Kerong, remote and rural Penan villages in upper Baram region of Malaysian Borneo. The project introduces the important traditional knowledge of the San about the migratory movements of wild animals accessible by means of handheld portable computers. The project has also led to a significant decline in poaching.

- *How?*

As a methodology for project activities we are employing Participatory Action Research in Software Development Methodology Augmentation. Besides spoken and written languages much less documented and well-known are the sign and secret languages of rainforest inhabitants which are made out of combinations of twigs leaves and other jungle products. The Oroo' signage is made out of rainforest materials such as twigs branches and leaves. The system was evaluated as a collaborative learning tool in the village where 6 family groups consisting of respectively an Oroo' conversant parent and a child.

- *Future work...?*

There is general consensus in the community that new approaches and measures that combine traditional and modern tools/methods in an appropriate way can address this challenge of cultural extinction.