



Digitizing Traditional Knowledge (TK)

Ethical and Policy Considerations



Learning Outcomes

1. Define and provide examples of traditional knowledge.
2. Identify implications for traditional knowledge within the digital content lifecycle.
3. Use the intercultural information ethics (IEE) framework to identify choices for digitizing traditional knowledge.
4. Explore examples of digital traditional knowledge collections using the adapted digital content lifecycle.

Traditional Knowledge (TK)

"Traditional knowledge (TK) is knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity." (WIPO, 2010).

Traditional knowledge is information which has existed over **time**, and is often related to survival, community and the daily functioning of society.

Traditional knowledge is often **informal, oral** and **unrecorded**.

Traditional knowledge has historical, cultural, scientific and economic value (Irawan, 2017).

Characteristics

Knowledge Type	Unique Description	Documented Examples
Traditional Knowledge	<ul style="list-style-type: none">the know-how, skills and practices developed within a community, forming part of its cultural identity, which is passed through generations. Sought for preservation, digitization, archiving.	Rotational farming practices (Tanzania) Medicinal plants and uses (Ghana; India; Hawaii)
Indigenous Knowledge	<ul style="list-style-type: none">culturally embedded knowledge which cannot be separated from its cultural context. Sought for knowledge sharing.	Totem pole carvings (and their meaning to First Nations of the Pacific Northwest)
Local Knowledge	<ul style="list-style-type: none">a dynamic mix of traditional knowledge, combined with media, news and education.	The location of the best water source at various times of the year (often undocumented)

Examples of Traditional Knowledge

Stories	Legends	Folklore	Songs
Recipes	Medicines	Languages	Laws
Rituals	Games	Dances	Symbols
Architecture	Art	Skills	Techniques
Taboos	Proverbs	Tools	Patterns

Digitizing Traditional Knowledge

- Many traditional practices, and non-recorded information, become lost or forgotten in time.
- Younger generations may not value or need the same traditional knowledge needed by older generations.
- Communities may disperse geographically and be less able to share traditional knowledge.
- Traditional knowledge collections are not always *open*, and can be *restricted* to respect the needs and rights of ownership for the community (example: [Traditional Knowledge labels](#)).
- There have been examples of exploitation of traditional knowledge by commercial actors.

Ethical Considerations for TK

- The lens through which a professional views a collection is likely partial and situated.
- Those who are not part of the community may not fully understand the meaning, significance, harm or value in a set of materials.
- Not all collections should be made available as open collections if there is potential for exploitation or harm.
- Ethical care is used to examine all stages of the lifecycle: are voices erased? Is the ownership based on colonial legacies? Is the community considered to be “other”?
- Standard practices which are a barrier to developing relationships with the materials are reconsidered or discarded.

Policy Considerations for TK

- Copyright
- Patents
- Trademarks
- Designs
- Confidential information

Real Life Example:

The Traditional Knowledge Digital Library project from India contains public knowledge related to Ayurveda, Unani, Siddha and Yoga for patent examiners to prevent granting patents to products developed using TK (Anderson, 2010).

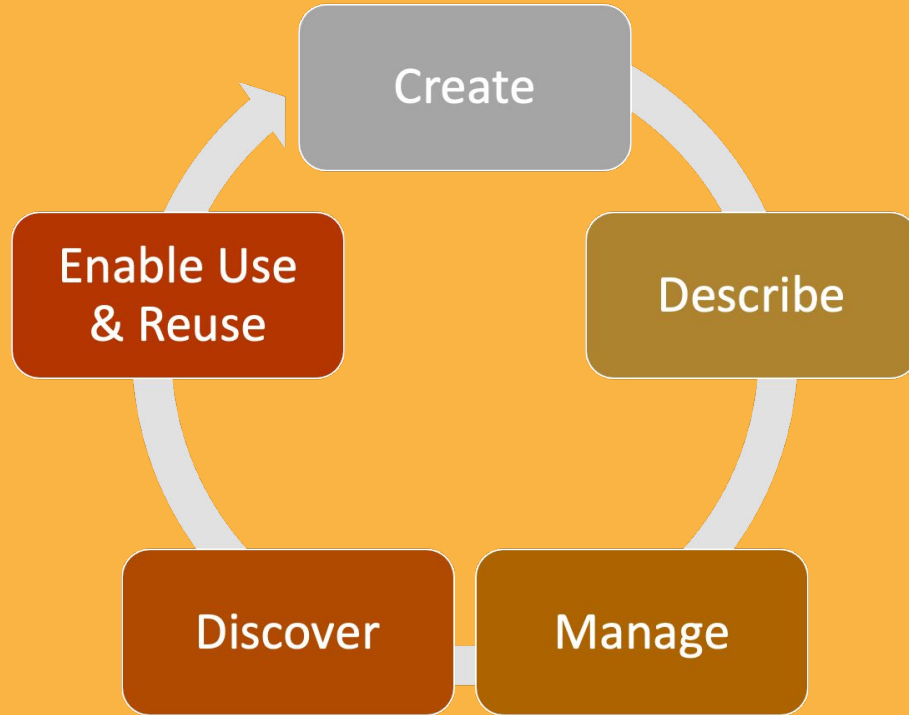


Image above from Pixabay,
<https://pixabay.com/images/id-304941/>

Intercultural Information Ethics (IIE)

- Originating in Africa, IIE is an ethical framework which addresses the ability of information and communication technology (ICT) to alter local ways of being (Bielby, 2015) .
- Capurro (2008) describes IIE in two dimensions:
 - Narrow: IIE focuses on the impact which information and communication technology (ICT) has on different cultures, as well as how issues are understood from different cultural traditions
 - Broad: IIE addresses intercultural issues raised by ICT
 - IIE aims to facilitate **conversations (dialogue)** between those in the community impacted by ICT innovations, and scientists, policymakers, leaders as a strategy to achieve intercultural harmony.

Digital Content Lifecycle



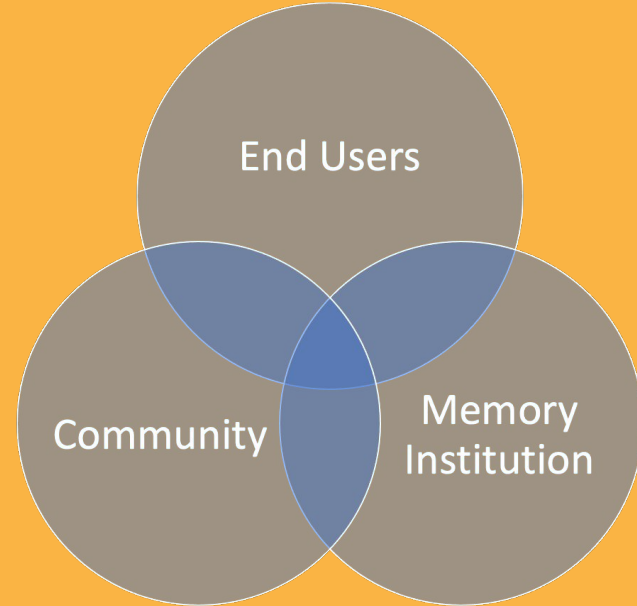
Adapted from the digital content lifecycle, <https://digitalnz.org/make-it-digital>

Key Stakeholders in a TK Project

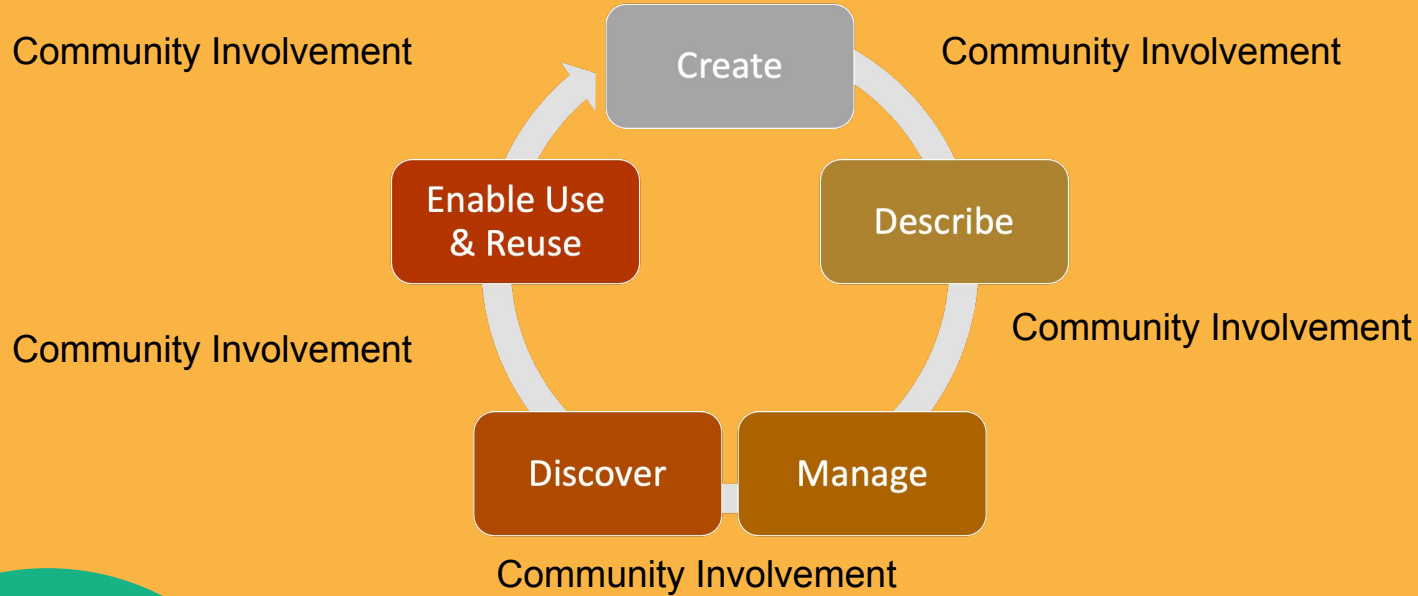
The stakeholders for the community include the end users, the memory institution, and the community (the most important stakeholder when working with traditional knowledge). The community should also be considered an end user and partner of the memory institution.

Cultural checks and community involvement (prioritizing the concerns of the community) are important when working with traditional knowledge.

Dialog between stakeholders ensures fair policy development and reduces harm.



Adapting the Digital Content Lifecycle for Traditional Knowledge



COMMUNITY CONNECTIONS

Consideration of ownership, permissions to use (example: [Memoranda of Understanding](#)), cultural rights and consent; engaging the community in dialog related to the content (interviews, peer review for accuracy)

Ethical and Policy Choices

Create	The content is created in usable file formats (accessible on mobile), with quality imaging without damaging the items and preserving the integrity and value of the item. Credit to the photographer could be added.
Describe	Metadata is used which includes local descriptions, local language, as well as scientific language. Descriptions are relevant to the community and accurate. Use of thesauri and subject headings representing the community (example: Maori Subject Headings).
Manage	Policies are created and technology chosen which ensure access, define collaboration and use of consultation for development of the collection. Hierarchical classification shows relationships between groups (example: Law of Indigenous Peoples in the Americas Classification Scheme or the Brian Deer Classification System)
Discover	The community is aware of the collection and its content, and receives training to use it.
Use and Reuse	Copyright, creative commons or knowledge labels are applied to the content to prevent exploitation of knowledge.

Search results

Search all endangered archives

Archive type

- Project (434)
- Collection (7,096)
- File (184,977)
- Item (220,866)
- Web page (18)

Content type

- Photograph (188,667)
- Newspaper (69,005)
- Manuscript (32,729)
- ...

Grid view List view

Showing 1 to 15 of 413,391 results

 <p>Digitisation of pre-Independence herbarium in Ghana Project</p>	 <p>19th-century documents from the Peruvian asylum el Manicomio del Cercado Project</p>	 <p>Recovering Peru's agrarian archive for the bicentennial Project</p>
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Endangered Archives Programme

<https://eap.bl.uk/>



Hawaiian Ethnobotany Online Database

Search for:

Sort By Name: [Hawaiian](#) | [Scientific](#) | [Vernacular](#)

Hawaiian Name	Species Name	Vernacular Name
'a'al'i	Dodonaea viscosa	none
a'e (<i>Sapindus</i>)	Sapindus saponaria	soapberry
a'e (<i>Zanthoxylum</i>)	Zanthoxylum (4 species)	none
'ahakea	Bobea (4 species)	none
'āheahea	Chenopodium oahuense	none
'ahu'awa	Cyperus javanicus	sedge
aiea	Nothoctrum (4 species)	none

Hawaii Ethnobotany Online Database

<http://data.bishopmuseum.org/ethnobotanydb/ethnobotany.php?b=list&o=1>

References

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<https://ndsa.org/2017/03/15/digital-preservation-ethical-care-and-the-tribal-stewardship-cohort-program-an-ndsa-interview-with-kimberly-christen.html>

Bielby, J. (2015). Comparative philosophies in intercultural information ethics. *Confluence: Journal of World Philosophies*, 2, 233-253.

Capurro, R. (2008). Intercultural information ethics. In Kenneth E. Himma & Herman T. Tavani (eds.): *The Handbook of Information and Computer Ethics*. New Jersey: Wiley, 2008, 639-665.

Kasih, D. P. D., Dharmawan, N. K. S., Putra, I. B. W., Sudiarawan, K. A., & Rakhima, A. S. (2021). The Exploitation of Indigenous Communities by Commercial Actors: Traditional Knowledge and Traditional Cultural Expression. *Journal of Ethnic and Cultural Studies*, 8(4), 91-108.

Sustainable Heritage Network. (2014). Memoranda of understanding.
<https://sustainableheritagenetwork.org/digital-heritage/mou-moa-template>



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