

# ***Impacts and Considerations for Indigenous Populations using Open Source***

Karaitiana Taiuru

<http://www.Taiuru.Maori.nz>  
@ktaiuru

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This presentation was first presented by Karaitiana Taiuru to the Open Source/Open Society 2015 conference (Indigenous break out session) in Wellington on April 17 2015.

Notes from the presentation will be published separately.

Original source <http://www.taiuru.maori.nz>

# *About Me*

- ◆ Ngai Tahu, Ngati Kahungunu, Ngati Toa
- ◆ From Christchurch
- ◆ Past 20 years in ICT and Web with a focus on Maori, Indigenous and Asia Pacific issues

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@ktaiuru

# *Introduction*

- ◆ An holistic description and comparison of Maori Culture and Society (Te Ao Maori) and Open Source Culture (Te Ao Tino Rangatiratanga).
- ◆ I will conclude each page with a benefit to Maori and other Indigenous Peoples.
- ◆ The aim is to enlighten both the Open Source Community and Indigenous Peoples about each other.

## *My intention...*

- ◆ Open Source community will be able to see how Indigenous Peoples think and therefore be able to offer better solutions.
- ◆ Indigenous Peoples will better understand the need for Open Source technologies.

Whakapapa/Knowl  
edge

# *Geneology/ Whakapapa (1)*

- ◆ Everything in the Maori world has whakapapa including all natural things, buildings, carvings, jewelry, people and places.
- ◆ Whakapapa meant supreme knowledge of the natural environment and how to appease the relevant gods, read the stars.

## *Geneology/ Whakapapa (2)*

- ◆ Open Source has whakapapa in manuals, licenses.
- ◆ Open Source is respectful to Maori as Maori can learn and become tohunga in Open Source
- ◆ Gods or developers?
- ◆ Prayers/karakia Online forums, Manuals.



## *Geneology/ Whakapapa (3)*

- ◆ All Maori Iwi now face an issue of recording genealogies in a cultural sensitive matter
- ◆ IP must fully remain with Iwi
- ◆ Systems must be culturally sensitive
- ◆ Indigenous view that images and names have spiritual connections.

# *Tino Rangatiratanga / Open Source*

- ◆ 1. (noun) self-determination, sovereignty, autonomy, self-government, domination, rule, control, power.(  
<http://www.maoridictionary.co.nz>)
- ◆ I have coined this term for Open Source.

## *Internet - Ipurangi*

- ◆ Internet is equivalent to the whole world.
- ◆ Maori understood there were other parts of the world such as Polynesia but they resided in Aotearoa/New Zealand.

# *Internet from Southern Cross Cable*

- ◆ This is equivalent to Aotearoa/New Zealand
- ◆ Further defined by...

## *Network Providers/iwi*

- ◆ Network Providers are the same as Iwi.
- ◆ Iwi are large groups of related families who reside in the same geographic region.

# *Networks/Hapu*

- ◆ Corporate/Education/Organisation and personal networks are the same as traditional Maori hapu.
- ◆ A Maori hapu is a sub group of an Iwi that comprises of more closely related families in the same geographic region.

## *Web sites/Whanau*

- ◆ Web sites are the same as whanau
- ◆ Whanau is a Maori family of blood connections whom share the same DNA and tangata are the people.

# *Computers / Rorohiko*

- ◆ Computers are the people.
- ◆ Systems and apps are the body parts that make the people
- ◆ Systems and apps need whakapapa and appropriate names.



## *Firewall and AntiVirus / Pa*

- ◆ A pa is a fortified village that protected all members of a family, hapu and Iwi who sought safety.
- ◆ Often more than one and there were traps and decoys to protect the pa.

# ***Social media and crowd sourcing /Marae***

- ◆ A marae is where Iwi, hapu, whanau and tangata met to discuss various topics, catch up with friends and to generally create a large social gathering.
- ◆ Maori culture are accustomed to crowd sourcing and open planning

## *Mobile phone/ Waea Pukoro*

- ◆ Traditional Maori musical instrument called a Purerehua created sounds in the wind and was used for communication.

## *Tohunga/Learned Experts*

- ◆ Every Maori community had Tohunga who were recognised experts in various parts of society such as: Celestial, gardens, spiritual world, medicine and education. Open Source communities have developers and software creators.

Open Source and  
Proprietary  
from an Indigenous  
view

# ***Commercial and Proprietary software and systems***

- ◆ Could be referred to as colonial.

# *Proprietary systems and software*

- ◆ International conglomerates take Intellectual Property that has remained within traditional Indigenous knowledge for centuries.
- ◆ Maori can not understand the environment
- ◆ Help and information are not readily available.
- ◆ A user pays for the right to access their own information

Te reo Maori  
The Maori lan-  
guage



## ***Te Reo Maori/Maori Language***

- ◆ About 100,000 newly created ICT words since 1997
- ◆ Linux distro was the first system to have majority localised into te reo Maori.
- ◆ Translators and experts do not want to share and give away their IP to corporate thus resulting in a lack of new terminology being created.

# ***Newly created ICT terminology***

- ◆ Often come with licenses and personal pressure not to share.
- ◆ Some translators are paid and others are not.
- ◆ New words created in isolation create confusion.
- ◆ Ensure you have a language expert such as Ian Cormack.

## ▣ ***Localization Projects***

- ◆ Historically failed to be successful due to lack of translators.
- ◆ 2015 there is a lack of communication between Indigenous Peoples and Open Source community.
- ◆ There are te reo sources for may projects

Security

## ***Indigenous lead security***

- ◆ Indigenous for Indigenous can benefit all.
- ◆ Perhaps not important for non Indigenous Peoples.

## ☰ ***Maori Diceware Password Generation***

- ◆ Use a Creative Commons licensed publicly available te reo Maori word list of 250,000 words.
- ◆ Striped down to meet diceware phrases
- ◆ *Intention is for an offline javascript html page to generate high entropy diceware passwords using Maori words.*
- ◆ *Premise: 10 ( or more ) Maori words randomly generated from 12,585 word list is  $\log_2( 12585^{10} / 2 ) = 135.19$  bits.*
- ◆ <http://world.std.com/~reinhold/diceware.html>

## ▣ *Pareto Security*

*Designed as a broadbased PHP security fixer class for CMS such as Drupal, Wordpress, Joomla, osCommerce and other content management systems.*

*Written in PHP 5*

*This class can filter requests to recognise malicious values and either call a 403 access denied ( default ), or optionally add the offending IP address to the banned list in the root htaccess file of a website.*

# ***Nga Patai/Questions***

- 1) What does OS mean to Maori communities - Maturanga Maori/Maori Knowledge? (Intellectual property/access)
- 2) How can OS provide an opportunity better connect and engage with Maori/disengaged communities
- 3) What could OS do to open up transparency and decision making in Maori communities?
- 4) What are the current developments taking place in the Maori World that may be of interest to the OS community?