



It's not quite Wakanda:  
preserving indigenous cultural  
heritage augmented and  
virtual reality environments

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## Overview

Efforts to “preserve” indigenous cultural heritage using augmented / virtual reality present challenges to librarians and researchers, despite the history of use of new media for this purpose and complicated by legacies of colonial “salvage anthropological” efforts as well as problems of maintenance that emerge with the rise and fall of digital platforms.



# Outline

- Cultural heritage items, used to transmit information about indigenous culture, are an information technology.
- The maintenance of platforms for indigenous and cultural heritage are often disrupted by their reliance on information technology that has emerged out of colonial and imperial contexts.
- Augmented and virtual reality offer benefits for capturing indigenous cultural heritage, but similar to film and digitization projects, preservation often is not one of them.
- Resources in digital humanities funding must be used to support indigenous-led technology projects across their lifecycles.



## Indigenous definition

- “Colonialism is primarily defined by exogenous domination. It thus has two fundamental and necessary components: an original displacement and unequal relations.” (Veracini, 2011)

# The ideal: the metaphor of Wakanda

- Advanced technology built by and for Wakandans with Wakandan values embedded.
- Technology developed outside of imperialism since Wakanda was never colonized.



(Disney/Marvel Studios)



New media technology solutions are almost certainly not better than whatever people were doing to keep their intangible cultural heritage preserved to this point.

UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage 2003 recognizes a variety of craft and performance arts as cultural heritage and that the best way to preserve them is to keep these practices alive.

# Virtual and Augmented Reality

- Virtual reality
- Augmented reality
- Photogrammetry

Photo credit: Megan O'Donnell





# Advantages of virtual and augmented reality for indigenous cultural heritage

- 3D
- Ability to incorporate place with GIS technology
- Getting easier every year
- Opportunities for immersive experiences that center indigenous knowledge



# Preservation and intangible cultural heritage

- Why are we preserving content?
- Who are we preserving content for?
- For how long?
- Is preservation supposed to keep the content the same, or is it supposed to translate content for new audiences?



# Challenges of AR/VR technology

- There are limits of technology itself, including accessibility, internet access, file sizes, “sim sickness,” and design.
- “Using studies on the preservation of other forms of art as a guide conservators of AR and VR may choose to maintain obsolescing technology and software, document the experience’s function, purpose and design, or choose instead to emulate or re-interpret it, based on the experience’s ‘work-defining characteristics’” (Allen, 2016).



We cannot ignore how technology being used to “preserve” indigenous cultural heritage has occasionally gone obsolete.

- Library of Congress Ancestral Voices Project
- Ongoing issue for smaller museums and historical societies with oral history collections
- Who watches the watchmen?

# AR/VR platforms must avoid Mukurtu's mixed messages

“Mukurtu is a Warumungu word meaning **‘dilly bag’ or a safe keeping place for sacred materials**. Warumungu elder, Michael Jampin Jones chose Mukurtu as the name for the community archive to remind users that the archive, too, is a safe keeping place where Warumungu people can share stories, knowledge, and cultural materials properly using their own protocols...”

About. (n.d.). Retrieved May 14, 2019, from Mukurtu CMS website: <http://mukurtu.org/about/>

From FAQ's “How does Mukurtu CMS fit into our larger digital preservation plan?”

“With that in mind, **you want to ensure that your preservation masters are suitably backed up outside of Mukurtu.**” recommends Sustainable Heritage Network.”

Faqs. (n.d.). Retrieved May 14, 2019, from Mukurtu CMS website: <http://mukurtu.org/faqs/>



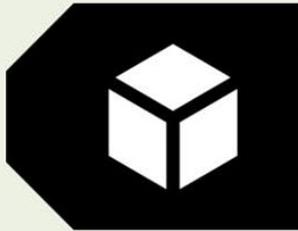
Determining who has responsibility for curating digitized indigenous cultural heritage presents a variety of legal and ethical challenges.

- Intellectual property law
- Indigenous items held by universities and museums should have ownership retained by indigenous communities
- Funding available for institutions creating content that will be available for free online



Disney/Marvel Studios

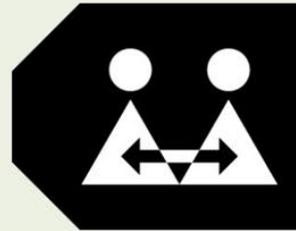
# Traditional Knowledge Labels and Licenses



TK Secret / Sacred (TK SS)



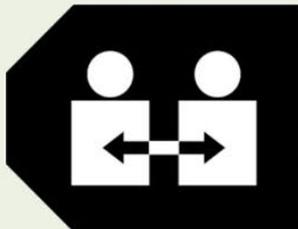
TK Women General (TK WG)



TK Women Restricted (TK WR)



TK Men General (TK MG)



TK Men Restricted (TK MR)



TK Non-Commercial (TK NC)



TK Commercial (TK C)



TK Community Voice (TK CV)

# Virtual and augmented reality projects can learn from “e-patriation”.

“If the digital is so good, why don’t you keep it?”

- Jim Enote, Director of the A:shiwi A:wam Museum and Heritage Center



Bell, J. A., Christen, K., & Turin, M. (2013). After the Return: Digital Repatriation and the Circulation of Indigenous Knowledge Workshop Report. *Museum Worlds*, 1(1).

Solly, M. (2017, September 11). This replica of a tlingit killer whale hat is spurring dialogue about digitization. Retrieved May 21, 2019, from Smithsonian website: <https://www.smithsonianmag.com/smithsonian-institution/replica-tingit-killer-whale-hat-spurring-dialogue-about-digitization-180964483/>



# Avoiding salvage anthropology when developing immersive experiences

- “Anthropologists of the late nineteenth and early twentieth centuries collected everything from material culture and linguistic data to songs and ethnobotanical specimens in the belief that Native societies were disappearing.” (Warren and Barnes, 2018).
- This act of “salvage” reflected Social Darwinist beliefs that at once erased the active nature of white colonial genocide against indigenous peoples as well as redefined indigenous cultural memory for white audiences.

# Capturing the “past” at what cost: Nanook of the North.

- Flaherty wanted to preserve the cultural traditions of the Inuit by recording it with the new media of the time: film
- Inuit collaborated to help create the film and scenes were shown to them for approval and suggestions
- Scenes were staged for the film to emphasize differences between Inuit and Western lives



Screenshot from Nanook of the North found on Ihle, J. (2014, May 24). Mostly movies: criterion #33: nanook of the north. Retrieved May 14, 2019, from Mostly Movies website: <http://movielistmania.blogspot.com/2014/05/criterion-33-nanook-of-north.html>

Duncan, D. W. (1999, January 12). Nanook of the North. Retrieved May 15, 2019, from The Criterion Collection website: <https://www.criterion.com/current/posts/42-nanook-of-the-north>

The people able to get funding are not always the most qualified to tell the story.

- Virtual Vaudeville aimed to solve technological challenge of preserving performance through virtual reality and motion capture with 900k NSF grant (Sutherland, 2014).
- Blackface - a major point of contention within the Virtual Vaudeville project (Sutherland, 2014)



Warner Bros. Pictures [Public domain]



# Who has the money? Example: Open Heritage 3D

- “Open Heritage is an initiative to provide free access to high resolution 3D data of cultural heritage sites across the world. It is a joint project between CyArk, Historic Environment Scotland and the University of South Florida Libraries” (“Open Heritage 3D FAQ” n.d.)
- Google Arts and Culture

# Lack of reliable funding will send an otherwise promising project to an early grave

- Digital humanities projects = startups of academia (Kansa, 2016).
- “Grants can be seen as a type of no-interest venture capital loan” and “Success means a project (and its associated institution) has enough continued income to grow via non-grant sources of support” (Kansa, 2016).
- Virtual Vaudeville got enough funding to prove it could be done but never enough to sustain it onwards (Sutherland, 2014).



## Digital humanists/organizations wanting to feel useful create conflicts of interest.

- Conflicting goals with universities and institutions want to create the next JSTOR and indigenous communities wanting to preserve their cultural heritage (Kansa, 2016).
- Locking indigenous communities into a platform or software as a service for preserving their cultural heritage is problematic even if the platform is designed with their needs in mind (Kansa, 2016).
- Documentation often the last part of these projects to be created and using digital humanities tools meant to involve training and support from the people behind the projects (Dietrich, 2019).



There are ways we can avoid the mistakes of earlier media projects as we develop AR/VR technology.

- The Sustainable Heritage Network is one model of a role that universities and government institutions can play.
- Cherokee Nation: Four Worlds Curriculum - language learning DVD
- Indigital - an indigenous AR/VR startup

Cushman, E. (2013). Wampum, Sequoyan, and Story: Decolonizing the Digital Archive. *College English*, 76(2), 115–135.

About The Sustainable Heritage Network. (n.d.). Retrieved May 15, 2019, from <http://sustainableheritagenetwork.org/about>

indigital. (n.d.). Retrieved May 15, 2019, from indigital website: <https://www.indigital.net.au>



## Lessons learned summary:

You are not preserving the past by making a virtual reality / augmented reality experience out of it

If you're making that claim you probably haven't really thought through what you're saying

Use money for infrastructure not just to startup projects

Support indigenous-led technology projects



Thank you!