A Visual Ethnographic Exploration of Knowledge Creation in the Context of Indigenous Elders: A Dialogic Inquiry

Jelina Haines¹, Jia Tina Du¹, Gus Geursen¹, Jing Gao¹, Ellen Trevorrow²
¹School of Information Technology and Mathematical Sciences, University of South Australia
²Ngarrindjeri Land & Progress Associations, Camp Coorong, South Australia

Abstract
This paper is part of an ongoing South Australian research project examining the knowledge creation and sharing practices of Indigenous people. This paper details the theoretical aspects underpinning a pilot study conducted with four senior Indigenous Elders and one young participant between the months of January and June 2016. A visual ethnographic approach following community-based participatory research principles was used to record the collaborative sharing of their knowledge ethically. Data collection consisted of video and audio dialogue interviews. There is little known about Indigenous knowledge creation and sharing practices in a traditional context and retrieving this knowledge is under-researched. The results show the effects, and the issues faced when knowledge is lost when Elders passes. Findings will contribute to greater understanding of Elders’ knowledge creation develops and offer a new lens for understanding the importance of their stories and experiences in a way that is relevant to the information community.

Keywords: Indigenous people; knowledge creation; dialogic inquiry; visual ethnography; community-based participatory research


Copyright: The authors hold copyright

Acknowledgements The authors deeply acknowledge the contributions of the Ngarrindjeri Elders and the community at Camp Coorong and the Ngarrindjeri Land and Progress Association for welcoming us to the community. Sincere thank you to Joanne Evans - the first author’s PhD co-supervisor, Aunty Ellen Trevorrow and Aunty Alice Abdullah as first author’s PhD cultural mentors and advisors. To Malcolm Haines for his valuable comments, proofreading, editing to improve the readability and coherence of the paper.

Contact: jelina.haines@my.unisa.edu.au, tina.du@edu.unisa.edu.au, gueursing@hotmail.com, Jing.Gao@unisa.edu.au, ellen1955.et@gmail.com

1 Introduction
Knowledge practices have become a key strategic asset of information systems that drives our social interactions and engagement. Agrifoglio (2015) stated that understanding knowledge creation and sharing practices are an important facet of knowledge management within the information community. Nonaka & Von Krogh (2009) had highlighted the importance of tacit and explicit knowledge as well as social interaction as key drivers for innovation in creating and acquiring new knowledge. In principle, tacit knowledge is understood as being difficult to transfer to another person, uncodified knowledge held by individual compared to the explicit knowledge that is articulately codified and verbalised in written text.

Indigenous knowledge creation (IKC) is a continuous self-transcending transference of knowledge processes and experiences enhanced through social interactions among individuals, organisations and the environment they live in (Akhavan, et al., 2012). Despite the growing attention to Indigenous research from academia, there is little recognition of the importance and value of Indigenous Elders’ knowledge to information science. There is evidence of disproportion in the written literature relating to Indigenous knowledge creation and sharing practices in a traditional context. Thus, the need to research Aboriginal knowledge creation and sharing practices present in storytelling, ceremonies and everyday life activities is essential. Such research will offer insights regarding Indigenous peoples’ information practices within the traditional context for a broader audience of readers (Sumner,
personal communications June 17, 2006). Battiste (2005) pointed out that Indigenous knowledge is inherently tied to the land. Marinova and Raven (2006) and Sumner (personal communication, June 17, 2016) described that the best way to understand Indigenous knowledge practices is to view Aboriginal traditions holistically through the kinship systems that tie together every element of knowledge (Hill, 2001). A study involving Indigenous people as participants should reflect their values and beliefs and their intellectual contributions should be acknowledged (Lambert, 2014). As Tobias, Richmond and Luginaah (2013) suggested, this approach necessitates community partnership throughout the duration of a project. The pilot study, within the Ngarrindjeri community in the Lower Murray River Lakes and the Coorong areas in South Australia, focused on working with four Indigenous Elders who hold knowledge and expertise of both past and present traditional stories and one young participant, whom they teach. Ethical knowledge sharing and the gaining of informed consent were carried out in collaboration with the Indigenous community. Our primary focus is to place emphasis on employing culturally appropriate research instruments. Some of the data we collected contained sensitive stories and therefore needed further consent from individual participants. The empirical questions that guided this paper include:

- **RQ1**: What are the common methods of passing Indigenous knowledge to the younger generations before European colonisation?
- **RQ2**: At what age were the Elders allowed to listen to stories? Whether there was a specific time and place in which these stories were shared?
- **RQ3**: What are the ethical issues involving Indigenous people in academic research?

2 **Research Design and Methods**

The pilot study was designed to define suitable methodologies and data gathering instruments for achieving a shared and truthful outcome for information collected from research participants. The research was a qualitative guided by the principles of community-based participatory research (CBPR) and theoretically grounded by the visual ethnographic approach. Both CBPR and the visual ethnography method offer a participatory basis for the ethical and collaborative gathering of information from research participants. These principles provide for reciprocated and informed consent, ensuring confidentiality and transparency of information gathered and underpinned equal partnerships between the researcher, the community and the academic institution (Minkler et al., 2003). The CBPR principles allow research partners to build relationships and trust by ensuring that the formative study is conducted with an eye on the potential and practical use of data results (Rhodes, et. al., 2010). The outcomes of this research and their application will potentially advance Indigenous knowledge preservation and the management of Elders’ stories for future generations. (Rhodes, et. al., 2010). The aim of this research was to offer a mutual benefit between the research participants and the researchers. This approach encourages co-learning and equal empowerment in the research process; participants contribute to the progress of the implementation of the study, for example, in our research, we have two Senior Elders as cultural advisers as well as mentors. Visual ethnography (VE) is a new form of information gathering and is designed to use visual images, storytelling and cultural activities to retrieve information held by research participants. VE does not investigate the whole culture of a participant; rather it investigates a specific aspect of research participants’ knowledge experiences and cultural practices (Pink, 2013). Using VE allows the capture of the visual characteristics of research participants’ knowledge practices associated with knowledge creation.

2.1 **Ngarrindjeri Country and Study Participants**

The Ngarrindjeri people are the custodians of the land around the River Murray, Lower Lakes, the Coorong and adjacent areas in South Australia. Ngarrindjeri culture is a knowledge system based on creation stories, oral traditions and experiences passed down through generations. (Tendi et al., 2007). They see their homeland as a cultural landscape that was shaped during the creation of Ancestral beings. Their historical and cultural stories are detailed documents of the ecological changes of the
Ngarrindjeri nation over hundreds of years (Tendi et al., 2007). Study participants come largely from Camp Coorong (Figure 1), situated about 200 kilometres south-east of Adelaide. Camp Coorong is a community-based education centre and tourism enterprise managed by Ellen Trevorrow on behalf of the Ngarrindjeri Lands and Progress Association (NLPA). NLPA was founded in 1985 as a place for South Australia’s children to come and learn about Ngarrindjeri culture and history with the long-term aim that this experience will contribute to reconciliation between Indigenous and non-Indigenous Australians.

![Figure 1. Study Location, Camp Coorong Meningie South Australia](http://ourriverourfuture.org/the-living-murray/lower-lakes-coorong-and-murray-mouth/)

2.2 Pilot Study Implementation

The pilot study was conducted with four Ngarrindjeri Elders (three females and one male) between 60 and 74 years of age and one young female participant in her early 20’s. The participation of the younger participant is very significant because she is the only one interested in being part of the research and she is being mentored by the Elders to be the next generation of knowledge keeper.

The framework in Figure 2 was used as a guide to continually evaluate, review and revise the design research tools as appropriate and informed the progress of final data gathering (Du et al., 2015). The open cyclical form of the framework provides the research participants with the opportunity to engage in the dialogue process. The progression of ‘reflecting, evaluating, and revising’ the methodologies employed creates a truthful partnership between the community and the researchers. Through this framework, research participants were encouraged to share their opinions and ideas that could be useful for the study.
2.3 Dialogue Interview and Video Recording

The dialogue interview (Figure 3) was employed as an ethical communication strategy. This method of data gathering was more effective and allowed us to updates our questions about concerns and issues raised during the interview. The Elders were more engaged during the dialogue process compared to the individual interview whereby participants only answer the question being. The questions were also designed to respect Ngarrindjeri cultural protocols, customary laws, traditions, and racial sensitivity in the local content (Du, et. al., 2015; Witzel, 2000). The discussion also shows Elders’ ability to use metaphor and past stories to engage with the questions relevant to their upbringing. The dialogue conversations were audio recorded and verbal, social interactions between each other were recorded on video. Video records the same data information, but the captured footage adds another dimension to our research. The recorded video shows their information behaviour non-verbal communications such as subtle as eye movement, facial expressions, mannerisms and body gestures in expressing their responses to the questions being asked, including moments of silence. Silence did not mean that the Elders do not understand the questions being asked, rather the point was to contemplate and gather their thoughts. At this juncture, the researcher paused a moment and joined the silence until the Elders were ready to continue. The video recording provides us with accuracy and accountability when capturing Elders’ emotions and feelings towards the importance of understanding their knowledge creation and sense of connection to the land and country. The knowledge sharing during the field video interview expanded our visual ethnographic data results (Garrett, 2011).
2.4 Procedures and Data Analysis

Community consultation was ongoing. Informed consent relevant to the participant’s circumstances and needs was also emphasised. Participants had been carefully selected and identified as being an Elder and having a role in the community. We consulted the senior Elders of the community first, to seek advice and guidance about the best strategies for encouraging participation in the research. The first author then collaborated with the community through six, monthly, visits in early 2016. The third visit focused on working with three female Elders and the young participant. Data collection was divided into two parts; the dialogue session, which lasted 1–2 hours with frequent coffee breaks and conversational discussion relevant to the research. The second part was a video recording of visits to places significant to the research participant’s knowledge creation. Both audio and video recordings were transcribed and open coded. The coded data were examined for categories and themes which are the base for the development of Elders’ knowledge frameworks. The word ‘Aunty’ and ‘Uncle’ in this study refers to the Elders and is a term the community uses to show respect for their status. Also, this research highlights the ethical process of involving Indigenous people in academic research and their significant contribution to the research as co-researchers. Therefore, the word ‘Indigenous’ and Elders are capitalised as referring to as a person rather than a subject of the research.

3 Preliminary Findings and Discussion

3.1 RQ1: What are the common methods of passing Indigenous knowledge to the younger generations before European colonisation?

Results from recording show that Elders’ knowledge evolved along with a deep connection to the land - their association with the place, the environment and the knowledge it holds. According to Aunty Ellen Trevorrow, ‘before European colonisation, the way of passing the knowledge was to walk on the land, listen to the Elders’ stories, and participate in ceremonial and cultural activities such as basket weaving’. She added that the ‘knowledge we gained from our Elders’ is part of how to survive on the land and part of that survival was understanding ... how the environment works’. Results from the recording show that knowledge sharing practice is an integral component of the preservation and continual existence of Elders’ knowledge. Aunty Ellen emphasises that the ‘importance of passing this knowledge right now to the younger generation be crucial before it is lost when an Elder passes’.
Dialogue responses from Aunty Ellen Trevorrow and Aunty Noreen Kartinyeri tell that:

“We are closely netted family in every way, the teaching, the discipline, the stories, living on the land, the responsibility around the family line. We shared what we have. However, over time, there has been a significant change for all of us...most of the changes happened through the education system, and it had a major impact on us, and now our Elders are dying at a young age. Today, we peace another challenge, the movement of families is a major problem, and the stolen generation is an ongoing issue, it had a significant impact, we had major changes in our education, along with our family lines, the welfare...you know. Most of our knowledgeable Elders are gone, and they took their knowledge with them”.

Ngarrindjeri knowledge is transmitted almost exclusively by oral transmission; an approach that has been practised for thousands of years, as affirmed by Aunty Alice Abdulla:

“Our ancestors create our stories as survival tools. The creation stories guide our beliefs. We were allowed [to] listen to Elders stories when I [was] eight when was allowed to listen the stories and storytelling are shared during basket weaving or feather flower art making. During that time knowledge is passed down characteristically separate from women and men”.

3.2 RQ2: At what age were the Elders allowed to listen to stories? Was there a specific time and place in which these stories were shared?

Results show that Indigenous knowledge creation is an interconnected, continuous, transmission of shared knowledge preserved by cultural practices and the traditions of storytelling and ceremony. Living Elders are recognised as having earned their status by living on the land long enough to acquire their knowledge and as having provided services for the benefit of the community (Council on Aboriginal Initiatives, 2012). Elders who participated in this study hold immense knowledge and to carry the information for the next generation to inherit. Their wisdom and guidance are valued for the wealth of practical, historical and cultural knowledge they possess (Maina, 2012). Also, their proficiency in applying knowledge concerning the land and country has become an important facet in the process of Indigenous knowledge recovery (Isese, 2013). Aunty Alice stated that the ‘loss of traditional knowledge is accelerating, due to the untimely passing of many Elders in the past few years. Aunty Ellen and Aunty Noreen added that this loss ‘creates a significant impact on the community and the next generation’.

Figure 4: Elder’s Knowledge creation conceptual framework
In a dialogic conversation, Aunty Alice and Aunty Ellen stated that ‘we were eight years old when we were first allowed to listen to the Elders’ stories’. Uncle Moogy Sumner further explained that the reason for a specific age was because ‘it was the age of which children were able to remember the stories and make the connections to the land’. He added that most of the stories were shared ‘during the smoking ceremony, cultural activities such as feather flower making, fishing, hunting and picking rushes for weaving and still practised now’. Aunty Ellen added that the ‘impact of environmental change and the sudden passing of Elders during the past few years are ongoing issues faced by the Ngarrindjeri community’. For this reason, the question of successful transmission of their knowledge to the younger generation casts an uncertain light on the future knowledge preservation. In the Ngarrindjeri community, there are only a few Elders who hold considerable knowledge. Ellie Wilson (the young participant) asserts that:

“I was fortunate ... to listen to stories since as I can remember and I always treasured my time with my Papa [Grandfather]. The memorable one for me, when Papa took me to Bonney Reserve and teaching me all the plants and their usage. I never remember all the scientific name, so yeah, it has been hard for us because of his no longer around” (Wilson, personal communication, March 15, 2016)

3.3 Cross – Gender Knowledge Sharing

The conceptual framework for Elders’ knowledge creation shows Aunty Ellen’s family lines of generations of female weavers (Figure 4). Aunty Ellen’s knowledge of weaving was obtained from Aunty Dorie. She gained values, beliefs and practical experience from her grandmother, and political experience from her husband and through her social interactions with other communities via her weaving workshops. The results also show evidence of contemporary cross-gender knowledge sharing as seen in Aunty Ellen’s family line whereby she taught basket weaving to all her children, including boys and girls. According to Uncle Moogy, ‘boys are only taught to weave for the purpose of weaving their tools for hunting and fishing’. He added that the women are still prohibited to fish or hunt unless it is part of social teaching. The young participant, Ellie Wilson, has indicated that ‘my Papa [grandfather] would share his knowledge stories during our walks, around the fire, ceremonies and cultural events, for example, the ‘Ringbalin’ ceremony’.

3.4 Elders Knowledge and Experiences Shared in Practice in the Traditional Society

In this study, we also investigated the roles of participants’ implicit and explicit knowledge stories. Nonaka and Takeuchi’s (1995) theory of collective knowledge creation called SECI provided a useful model for enabling us to design a framework that will provide an alternate way to present the four components of participants’ stories visually. We have identified four distinctive characteristics of stories and codified them into categories and themes based on the SECI model: (1) personal, (2) cultural, (3) communal and, lastly, (4) trivial (see Figure 5).
The framework of socialisation, externalisation, combination, and internalisation (SECI) developed in this paper is an attempt to integrate the four characteristics of stories held by the participants into a single coherent framework. The personal story is a distinctive characteristic where tacit to tacit knowledge lies with individual participants and often can be difficult to retrieve or codify as the information is shared to select people only. The internalisation of cultural stories from tacit to explicit means that values and tradition can now be categorised accordingly. Though, some stories such as the Dreaming stories still awkward to codify. The combination of communal stories of explicit to explicit knowledge means that cultural activities such as basket weaving, ceremony and storytelling hold value and significance, based on generations of stories passed down by Elders. Communal stories are shared during cultural activities, such as ceremony, basket weaving, hunting or fishing. Trivial stories are shared during field trips, such as watching kids play football or food shopping. It shows how the four levels interact to shape the learning and innovative capabilities of communities.

3.5 RQ3: What are the Ethical Issues Involving Indigenous People in Academic Research?

When conducting ethical and reciprocated studies in an Indigenous context, researchers must stipulate the benefits that the community will gain from the research. The research must be designed with respect, open communication, ongoing consultation, and consent in mind, as well as the recognition and protection of both oral and written stories gathered from the research. Lambert (2014) emphasises that data acquired from research participants must build aptitude to create innovation and change, and challenge imperialism and hegemony in traditional academic thinking. Furthermore, Lambert (2014) indicated that the investigation sustainability must acknowledge the community as partners and collaborators, and it needs proper consultation and permission as well as support from the community before the research begins. This ethical method needs to be understood by researchers and education institutions for the purpose of implementing participatory and reciprocated research that will contribute to Indigenous community empowerment and self-determination (Lambert, 2014). Ethical research involving Aboriginal people and Torres Strait Islanders requires maintaining trust, respect, integrity, responsibility and reciprocity. These guiding principles will encourage transparency and honest dealing, eliminate cultural differences and build a sense of pride and dignity within the guidelines of human
research integrity (NHMRC, 2003). Castleden et al. (2010) stated that the value and practices of acknowledging significant Indigenous intellectual contributions to the research must be recognised to make the decision not to repeat the same mistakes of performing unethical research that may have been conducted by past researchers. Community consultations with the Ngarrindjeri Elders are ongoing to gain better inputs from the community. This is to ensure research data were collected and shared by participants’ views and protocols. Another important aspect of ethical research is to recognise reciprocity. Reciprocity may be addressed through exchanges of the exchange of information, data results, experiences, community mentoring, or monetary compensation, and needs to be further developed. The principal author of this paper has dedicated more than 15 years to gaining Ngarrindjeri communities’ trust and respect. The sharing of information, experiences and the time devoted are part of my reciprocity and commitment to make a difference in the Indigenous community. Following the CBPR principles, ‘honorary’ authorship is recognised in this paper, and research participants’ intellectual contributions to the study (their views) are acknowledged appropriately (Castleden et al. (2010).

4 Conclusion and Further Research

Preliminary results suggest that telling a story activates memories for both the storyteller and the listeners and creates a personal connection between narrator and audience. In this study, we found that dialogue storytelling helps to generate more information and strengthen the bonds between storytellers (Elders) and listeners (Researchers). The preliminary results also suggest the importance of storytelling as integral to the continuing process of knowledge creation in the sense that knowledge creation evolves as the research participants interact with each other (Nonaka, I., & Toyama, R. (2003). The conceptualisation of knowledge creation as a dialectic process in this study suggests that oral traditions preserved through storytelling, cultural and ceremonial activities can be recognised as a form of knowledge structure held by Elders (Haines, et. al., 2015), that provides a deeper understanding of knowledge creation. Findings also suggest that knowledge creation is a self-transcending, ongoing process of learning shaped by each Elder’s stories, influenced by their upbringing, beliefs, ways of knowing, and the depth of their connection to the land, manifested through their convictions and responses to the changing environment. The preliminary results also suggest that the young female participant appeared to retain more knowledge from her grandfather. This idea opens the possibility of the new phenomenon of cross-gender knowledge sharing.

This article provides preliminary information on Indigenous knowledge creation and the process of how Elders knowledge is shared. The results show that Indigenous Elders knowledge is richly woven fabric of texts. In the strongest sense, the Elders in this research are the custodians of culture, keepers of tradition and teachers of knowledge. Elders’ stories and practical experiences directly reflect of group history, which is also a reflection of their cultural identity as Indigenous people. The preliminary results will guide us to improve our data gathering procedures and to update data questions as our research progresses and conducting follow-up interviews with our current research participants.

5 References


Council on Aboriginal Initiatives (2012). Elder Protocol and Guidelines, University of Alberta
Edmonton, AB, accessed 01 August 2015

people’s information practices and internet use: a Ngarrindjeri perspective. In Proceedings
Electronic Library.

Progress in Human Geography, 35(4), 521-541.

through narrative storytelling and creative activities. Paper presented at the 2015 Indigenous
Content in Education Symposium (Vol. 1, No. 1).


Iseke, J. (2013). Indigenous storytelling as research. International Review of Qualitative Research,
6(4), 559-577.

the Behavioural Sciences, Salish Kootenai College Press, Montana

Maina, C. K. (2012). Traditional knowledge management and preservation: Intersections with


research: implications for public health funding. American Journal of Public Health, 93(8),
1210-1213.

NHMRC (2003), Guidelines for Ethical Conduct in Aboriginal and Torres Strait Islander Health
Research, accessed 21 August 2015, from

the dynamics of innovation. Oxford University Press.

Nonaka, I., & Toyama, R. (2003). The knowledge-creating theory revisited: knowledge creation as a
synthesizing process. Knowledge management research & practice, 1(1), 2-10.

Nonaka, I., & Von Krogh, G. (2009). Perspective-tacit knowledge and knowledge conversion:
Controversy and advancement in organizational knowledge creation theory. Organization
science, 20(3), 635-652.


new and not-so-new approach to HIV/AIDS prevention, care, and treatment. AIDS Education
and Prevention, 22(3), 173.

Tendi, N., Ngarrindjeri Heritage Committee, & Ngarrindjeri Native Title Management Committee.
(2007). Ngarrindjeri Nation Yarluwar-Ruwe Plan: Caring for Ngarrindjeri sea country and
culture, Ngarrindjeri Land & Progress Association, Camp Coorong, South Australia

(CBPR) with indigenous communities: producing respectful and reciprocal research. Journal of
Empirical Research on Human Research Ethics, 8(2), 129-140.