

# Chapter 17

## Digital Preservation of Indigenous Knowledge in South African Rural Communities

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### ABSTRACT

*Indigenous knowledge is mainly preserved in the memories of elders, and most of this knowledge is slowly disappearing in rural communities due to various factors such as death, sickness, and memory loss. Digital preservation is regarded as one of the modern methods to preserve indigenous knowledge as it can be shared with others and be passed on to future generations. But how can indigenous knowledge be documented and preserved to benefit indigenous knowledge owners and accessible for future generations? The chapter thus looked into the policy, techniques, and technologies being employed to document and preserve indigenous knowledge in rural communities. Knowledge management frameworks were also used as underpinning theories to guide the study. The findings revealed that rural communities are still relying mostly on traditional methods such as oral tradition, storytelling, and community of practice in sharing their indigenous knowledge in this digital era.*

### INTRODUCTION

Although research in indigenous knowledge has shown enormous growth over the years, most of this knowledge is still found in tacit form. It is thus necessary to evaluate the initiatives and techniques of documenting and preserving indigenous knowledge because of its nature which normally communicated verbally from generations to generations. Govender et al. (2013) describe indigenous knowledge as the traditional, cultural, local and community knowledge produced and owned by local people in their specific communities and passed on from generation to generation through practice and oral channels. This knowledge is generated and transmitted by communities, over time, in an effort to cope with their own agro-ecological and socio-economic environments (Fernandez, 1994). As stated by Ngulube (2002) indigenous knowledge is mainly tacit, unique, non-systematic, derived from local experiments, innova-

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tions, creativity, skills and experiences, and embedded in the minds and activities of communities with long histories of close interaction with the natural environment across cultures and geographical spaces. It serves as the basis for communication, decision-making and teaching in the indigenous communities where it is embedded and it provides basis for problem solving approach for communities (Furutnani et al., 2018). This knowledge is mainly preserved in the memories of elders and shared through oral communication, traditional practices and demonstrations, and each time an elderly person dies it is as if a library has been burned down (Lwoga, Ngulube & Stilwell, 2011).

However, most of indigenous knowledge is slowly disappearing in rural communities due to various factors such as death, sickness and memory loss etc. This knowledge is Africa's identity and it need to be safeguarded at all times, and there is therefore a need for documentation and preservation of this tacit indigenous knowledge as it is at risk of becoming extinct. Documenting and preserving indigenous knowledge will help to ensure that rural communities are not disadvantaged because of the unique beliefs and folkways that pattern their lives (Sithole, 2007). Observations in the 21st century also indicate that indigenous knowledge is an important resource which must be preserved (Chikonzo, 2013). Rosenthal, et al. (2005) described the goal of any digital preservation system as to ensure that the information it contains remains accessible to users over a long period of time. Preserving indigenous knowledge will thus prevent it from getting lost and it will be accessible to the future generation. The growth of the need to preserve indigenous knowledge has also been recognized worldwide. World organisations such as United Nations Educational, International Federation of Library Association (IFLA), World Council of Indigenous Knowledge and the World Bank are also promoting the preservation of indigenous knowledge (Yunnus, 2017). UNESCO (2003)'s charter on the preservation of digital heritage also stated the purpose of preserving the digital heritage as to ensure that it remains accessible to the public and accordingly, access to digital heritage materials, especially those in the public should be free of unreasonable restrictions. Preserving indigenous knowledge means that it could be managed and communicated without dispossessing it from its owners and carrier. The study thus looked into techniques or strategies and technologies used in preserving the indigenous knowledge in rural communities in South Africa.

## **PROBLEM STATEMENT**

Indigenous knowledge is commonly exchanged through personal communication and demonstration, and it gets transmitted from master to apprentice, from parents to children and from one neighbour to the other and so on (Dlamini, 2017). As pointed out by Biyela (2016) global knowledge sharing can help Africa bridge digital divide and thus curb the scores of poverty and other socio-economic challenges. However, indigenous knowledge is disappearing all over the world as a direct result of the pressures of modernization and globalization (Msuya, 2007, Lwoga, Ngulube & Stilwell, 2011). As pointed out by Msuya (2007) one of the pertinent issues with regard to the preservation of indigenous knowledge in South Africa is the threat of indigenous knowledge becoming extinct, and this is because most indigenous knowledge practices are not in written form as knowledge is transmitted orally from one generation to the other. Therefore, much of tacit indigenous knowledge is preserved in the memories of elders, thus gradually disappearing due to loss of memory and death (Ngulube, 2002). As stated by Dlamini and Ocholla (2018) in African countries when an old man dies the entire library dies and this implies that when indigenous knowledge owners die, they die with their valuable knowledge leaving their generation suffering. This challenge need to be addressed because many community members rely on indigenous

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