

The Impact of the Information Age on Remote Indigenous Communities

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Indigenous peoples are remarkably diverse—in excess of 5 000 distinct groups situated in some 90 countries, comprising more than five percent of the current population, nearly 400 million people (UN News, 2014). Indigenous Australian communities, native to a country that boasts one of the highest Information Communication Technology (ICT) penetration rates in the world, once suffered from significantly lower levels of participation (Lenoy, 2001). In the late 20th Century and early 21st Century, there were growing concerns that Indigenous knowledge systems were to be destined to suffer from substantial suppression as a result of the incessant growth of the Information Age. This argument examines the integration between modern technological systems and remote Indigenous Australian communities. It exemplifies the ongoing impact of these technologies upon the members of these communities, making evident the reality that engagement with ICT is crucial in regards to the preservation of culture. Indigenous communities in the remote regions of Australia'once greatly disadvantaged due to their severe disconnection from mainstream society'have come to benefit substantially from the proliferation of technologies emanating from the advent of the Information Age. In particular, there are invaluable insights to be gained from the usage of broadband technologies by the Ngaanyatjarra people, home to the Ngaanyatjarra lands of Western Australia (population 1 606) and the adoption of mobile technology by the residents of Wujal Wujal (population 282), a remote township located in far North Queensland (Australian Bureau of Statistics [ABS], 2016b, Ormond-Parker et al., 2013; ABS, 2016c). A salient element to be observed from the case studies of these communities, as well as evident in the historical lack of technological engagement amongst Aboriginal peoples, is the significance of ICT in the lives of the individuals belonging to 21st Century Indigenous communities.

With the installation of some 400km of fibre optic cable across their lands in the year 2007, Yarnangu (Ngaanyatjarra people) had, for the first time, become firmly involved with modern technology (Ormond-Parker et al., 2013). Among Yarnangu, ICT participation is commonly perceived as being able to encourage cultural regeneration, with the existence of online educational, heritage protection and cultural platforms being the most significant enabling factors. In 2002, Ngaanyatjarra media had a computer system installed in the community of Irrunytju to support communal access to Ngaanyatjarra heritage protection website Ara Irititja. The website has since received numerous contributions from Irrunytju users in regards to traditional Ngaanyatjarra knowledge'skills and practices developed, maintained and transferred, within the Ngaanyatjarra community, from the elders of one generation to the youths of the next (Ormond-Parker et al., 2013; World Intellectual Property Organisation, n.d.). Ara Irititja enables young people to gain a deeper

understanding of Ngaanyatjarra spirituality, strengthening cultural ties and fostering the prolonged existence of the Ngaanyatjarra people. The individuals who have come to benefit most substantially from the existence of the Ara Irititja online database are those who own, or have regular access to, some form of internet-enabled device. As of 2016, the percentage of Ngaanyatjarra households with home internet connection was 45.6% (ABS, 2016b).

January 2008 signified a considerable transformation concerning ICT participation among the residents of Wujal Wujal, an Aboriginal community in Cape York, along with numerous other communities in the Cape. A Telstra 3G mobile broadband network was introduced into the Cape York Peninsula (Ormond-Parker et al., 2013). The mobile technologies that have since been adopted by the Indigenous communities of the region have fostered increased social engagement between individuals belonging to these groups. In particular, mobile phones had come to occupy a critical role in facilitating communication between individuals and their family and friends. Mobile technology allowed people to be well-informed in regards to the happenings of their loved ones via the usage of instant messaging services. This becomes ever-more critical upon considering the fact that, with no local high schools, families residing in Wujal Wujal often have to send their children to boarding schools. However, as a result of mobile technologies, contact between families is still frequently maintained (Ormond-Parker et al., 2013). In turn, the convenience of instant communication afforded by mobile technologies serves to strengthen the connections between individuals, promoting a stronger sense of community and the continuity of culture. Although, it should be noted that the remote nature of Cape York can serve to be a hindrance of effective mobile technology usage and as such, the benefits of mobile device usage are not experienced uniformly throughout the region.

The suggestion that Indigenous Australians are largely unrecognised in regards to ICT still remains a primary concern in regards to the matter of ICT participation in Australia. The Patterns of Internet Access in Australia report, published in 2006, detailed that individuals belonging to Indigenous groups were 69% less likely than non-Indigenous Australians to reside in a household with an internet connection. In addition, 52% less likely to have broadband access (ABS, 2006). While at the turn of the 21st Century until the mid 2000s the matter of accessibility was pertinent, more recent literature has come to detail the positive impacts of ICT enjoyed by Indigenous peoples and the ever-increasing rates of participation they have come to experience. ICT has been identified as being the most effective medium for the preservation and passing down of traditional knowledge for Indigenous Australians (Van Der Meer et al., 2015). As per the 2011 Census, it was observed that a significantly greater proportion of Aboriginal and Torres Strait Islander households reported having an

internet connection. 63% of these households attested to having household internet access, illustrating a significant increase of 40% from 2006 (ABS, 2011). Moreover, as observed in the 2016 census, 83.2% of Australian dwellings had an internet connection, providing further evidence to support the notion that geographical isolation plays an increasingly insignificant factor concerning ICT participation rates (ABS, 2016a).

Australia is considered to be one of the most technologically-advanced countries in the world, with a significant portion of this credential being attributable to the widespread integration of ICT in educational and professional contexts. Despite the fact that arguments concerning the recognition of remote Indigenous Australian communities in the nation's digital landscape will continue, these very same communities have come to benefit substantially from the advent of the Information Age. The usage of broadband by the Yarnangu of Western Australia has directly fostered the continuation of the Ngaanyatjarra people, with the Ara Irititja heritage protection website allowing youths to acquire a more profound understanding of Ngaanyatjarra spirituality/strengthening cultural ties. Moreover, the adoption of mobile technologies by the communities of the Cape York region of North Queensland has also sought to promote the strengthening of bonds shared between individuals and their friends, family and wider community. In a broader context, the foundation of Australian identity lies in the culturally-rich Aboriginal peoples of this expansive continent. As such, the encouragement of ICT participation among these peoples will not only serve to preserve the identity of their individual cultures, but also Australian identity in its entirety.

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