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Digital inclusion of the Orang Asli of Peninsular Malaysia: Remote virtual mechanism for usability of telecentres amongst indigenous peoples

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Abstract

Over the last decades, researchers and development practitioners have been experimenting with models, frameworks and devises to meet the needs of diverse users of information communication technologies. Turning to an ICT-based community development known as the Telecentre Programme amongst Orang Asli, an indigenous people groups in Peninsular Malaysia, this paper describes why a remote virtual management devise was invented to encounter challenges related to rugged terrain constraints, which would have directly impacted the planning and the execution of programmes designed at the telecentres. This paper argues as a technological solution, the virtual remote management system has powered an ecosystem, which shored up the digital inclusion of the indigenous communities and in the process enabled the enhancement of local informational capabilities. To this end, it reduced their technological dependency on outsiders leading to the usability and sustainability of the telecentre for local capacity building and socioeconomic benefits for the disadvantage communities.

KEYWORDS
digital inclusion, indigenous peoples, information communication technologies for development, Orang Asli, telecentre usability, terrain constraints, virtual remote management system

1 | INTRODUCTION

Since its emergence as one of the most cost-effective means to address inequalities in the access to, use and benefits from digital technologies, telecentre's usability and sustainability particularly in remote and rural areas has been central in scholarly debates. Foremost is to ensure telecentres remain technically operational and continue to address the need of local target communities. For not easily accessible areas, information communication technologies (ICTs) access via Telecentre is deemed to deliver socioeconomic benefits to rural communities in the form of empowerment, capacity building and development of social capital (Aji, Yusof, Osman, & Yusop, 2010).

Yet in terms of global distribution of ICTs the rural areas in developing countries are the least served section of society. One popular explanation is challenging terrain: they are often located in remote, for examples are mountainous regions with extreme variations in elevation, where it is not advantageous to deploy infrastructure. Therefore, often are without network access, lack of adjacent infrastructure (eg, grid electricity), lack of digital and language literacy, low income and affordability, lack of relevant content and services as well as lack of cultural and social relevance and therefore acceptance. All of this foments a difficulty facing those involved in rural digital inclusion efforts: being caught between two