

Digital Inclusion and Lifestyle Transformation among the Orang Asli: Sacrificing Culture for Modernity?

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Abstract

In the Digital Era, being part of the digital society is no longer an option particularly for those living in the urban areas. Caught by the e-wave and the onslaught of sophisticated information and communication technologies (ICT), most urbanites are e-savvy unlike those living in rural locations, particularly the indigenous groups. Is there a need for simple, rural folks to embrace digital literacy and be e-inclusive? Hence, the objective of the study is to assess the level of literacy and computer literacy amongst the indigenous people or natives living in a rural area of Perak, Malaysia. Cross-sectional research design with purposive sampling was employed and the instrument used was a survey form. The findings revealed that 30.8% of the respondents were illiterate and only 5.2% who were computer literate thus, substantiating the myth of digital inclusion among the minorities. With the government's transformation plan to have connected citizens through broadband access, the dilemma was the motivation for this research and inherently, substantiated. Although native minorities in Perak, Malaysia formed the sample size for this study, the implications provide justification for policy analysis on socio-technological inclusion among other disadvantaged groups as culture remains strongly ingrained in their every day existence. However, with time, the new generation may revolutionize the outlook of the indigenous group towards modernity and ICT. A change champion together with a positive, political environment would retard the myth and rhetoricism in promoting e-access for social inclusion and citizen development.

Keywords: culture, indigenous, digital inclusion, digital divide, e-literacy, Malaysia

1. Introduction

Driven by the Digital Era, the Malaysian government's goal of a knowledge or computer literate society by the year 2020 is the foundation of this study. In addition, the Prime Minister's immediate focus or key thrust called the 1Malaysia (One Malaysia) concept of 'People first, Performance now' (Razak 2009) strengthens the need for the conduct of the research. Repeatedly, the government's quest for a knowledge society and ultimately, digital inclusion, has been part of the national plans such as annually tabled budget and prior to that, the Tenth Malaysia Plan (Razak 2010). The successful implementation of country priorities is crucial to all government projects as emphasized by the Deputy Minister of Malaysia's Energy, Water and Communications Ministry where all ongoing programs on closing the digital divide in Malaysia has to be completed by 2010 (Li, 2009). With a decade left to Malaysia's goal of achieving a developed nation status, time and citizen participation in embracing and supporting the government's initiatives must be all-encompassing. By closing the digital divide, social inclusion through information and communication (ICT) can be achieved. Alternatively, being digitally inclusive is not an easy process as minorities, particularly the indigenous people or "*orang asli*" would have to sacrifice some aspects of their culture or lifestyle.

Getting the citizens to be digitally inclusive is not a new initiative. This has been mentioned since 1997 when Malaysia's Multimedia Super Corridor was launched by then Prime Minister, Datuk Seri Dr. Mahathir Mohamed. A specific project called the e-government flagship would ensure inclusion and citizen participation besides automating all government-based processes for efficiency and effectiveness. Regardless, where government-initiated projects are concerned, politics will interfere at the initial implementation stage (Hashim 2008), thus slowing down the success rate. Currently, the irony of the situation is more rhetoric from being

hyped by politicians – it is in fact a paradox. For example, the vision of broadband access for rural areas is slow in materializing where the 2011 national broadband penetration rate is only 81% for those living in the metropolitan areas (Bernama, 2011). What then is the penetration rate for the minorities living in rural and remote areas of Malaysia?

Doubtlessly, surfing the internet requires users to be able to read but literacy rate is also low in the rural areas. With the current population of 28.25 million (Department of Statistics Malaysia, 2010), eight percent of Malaysians are illiterate as reflected in the total adult literacy rate of 92%; this is equivalent to the percentage of persons aged 15 and over who can read and write (UNICEF, 2010). This means that approximately 2.3 million citizens are not able to read or write and as such are automatically excluded in the social-economic development (Edzan, 2008). This is an alarming situation and will not brook well for the country's national vision with less than ten years to go. Therefore this study is timely as the assessment on the level of computer literacy among an indigenous group living in a rural area of Malaysia would support the Prime Minister's directive of 'People first' while simultaneously, providing the political leader of the constituent with enough empirical evidence to contain the situation and inherently indicate the act of 'Performance now'.

1.1 Background of Problem

As previously mentioned, the objective of this study was to determine computer literacy among a specific indigenous group of Malaysia. Sufficient education and computer usage would denote information and digital inclusion which would thereon lead to e-participation or e-democracy. The choice on the scope of the study was a perfect fit as there were limited literature on the topic. Furthermore, this minority group was seldom focused on for political and cultural reasons.

1.2 The Indigenous Group – the Semais of Perak

The focus minority group for this study are the indigenous group or locally referred to as 'Orang Asli' Semai living in a small village called Kampung Bukit Terang, which is located in Kampar, Perak. To describe this group, the work of Nicholas (1997) is quoted:

"The Orang Asli are the indigenous minority peoples of Peninsular Malaysia. The name is a Malay term which transliterates as 'original peoples' or 'first peoples.' It is a collective term introduced by anthropologists and administrators for the 18 sub-ethnic groups generally classified for official purposes under Negrito, Senoi and Proto-Malay. They numbered 105,000 in 1997 representing a mere 0.5 per cent of the national population. About 40 per cent of the Orang Asli population - including Semai, Temiar, Che Wong, Jah Hut, Semelai and Semoq Beri - however, live close to, or within forested areas. Here they engage in swiddening (hill rice cultivation) and do some hunting and gathering. These communities also trade in petai, durian, rattan and resins to earn cash incomes".

Furthermore, as shown in Figure 1, the Semaian are only found in parts of Perak and the neighboring state of Pahang. Suffice is to say that the research project focusing on the Semai tribe comes at an opportune moment. Brief conversations and observation of the village have shown that the Semaian are ready to embrace modernity and technology but the crux of the matter still lies in their interest to be educated and achieve a commendable level of literacy. Sowing their interests and motivating them require the interference of the political leader of that constituent to champion such a noble cause.

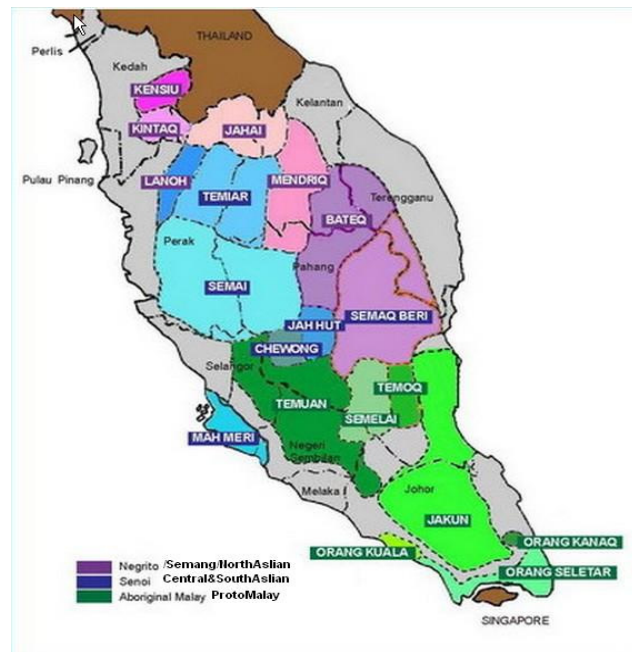


Figure 1. Distribution of natives (orang asli) in west Malaysia (source: orang asli affairs department, 2010)

1.3 Information and Communication Technology (ICT) in Malaysia

Information and communication technology strategic roadmap for Malaysia was developed by the the National Information Technology Council (NITC) (MOSTI, 2007) with the objective of transforming Malaysia's economy to a knowledge-based one. Current ICT prominence is focused on e-democracy initiative through e-participation of Malaysians for nation building. In fact, the country's annual national budgets have always emphasized the need for digital literacy and internet usage among the citizens. One of the initiatives is the Universal Service Programme (USP) undertaking amounting to RM600 million that is focused on increasing communications infrastructure in rural areas nationwide (Li, 2009). Also, the recent tabulation of Budget 2011 evidenced the importance of ICT which is the sixth National Key Economic Area (NKEA) from the twelve strategies (Razak, 2010) announced by the Prime Minister. It is hoped that the expansion of the ICT infrastructure across the country will reduce the digital divide and subsequently, benefit all segments of the populace. To re-emphasize, "ICT development is seen as an important strategic driver for positioning Malaysia as competitive K-based economy and global ICT and multimedia hub." (MOSTI, 2007). This is noted, yet realistically, it is not a feasible project because of the the high cost of implementing such a sophisticated infrastructure (Bernama, 2010) and the margin of people who are not computer literate is still significant. Nevertheless, it Malaysia's quest to have an inclusive and computer savvy society, such plans have to be continuously enforced (Rekhari, 2009).

1.4 What Is Digital Inclusion?

To put it in simple form, digital inclusion is the positive response to narrowing the digital divide (Jaeger et al, 2012). Digital inclusion encompassess three areas which are access, technology literacy and content services. A society that is digitally inclusive is one that has been embraced by the government's development programs where the community, residents, small business and non-profit organizations are equally provided for. In addition, digitally inclusive community programs (Cushman & Klecun, 2006) will level the playing field of opportunity with disabilities, at-risk youths, immigrants/refugees and relevant others (Letch & Carroll, 2008; Helpser, 2008; Cushman & McLean, 2008).

Under the Malaysian government's four pillars of transformation, a digitally inclusive society falls under the One Malaysia (1Malaysia) motto of "People First, Performance Now", the Economic Transformation Program (ETP) and the 10th Malaysia Plan. Within these three transformation agenda, information and communication technology have been emphasized as the enabler for a connected community (Hashim et al, 2011) and citizen participation through online government initiatives such as e-government and e-participation (Venkatesh, 2012; Yazdanifard et al, 2011; Al-Jaghoub & Westrup, 2008).

2. Method

The research design employed for the study was a cross-sectional survey with double-stage sampling. For the first stage of the general selection of probability sampling, stratified sampling was deployed, that is, identifying the location of the population. The second stage was convenience sampling where 40 sets of questionnaires were distributed to 40 units of analysis – the Semaian. The minimum respondent number ($n=40$) was determined on the basis of the total population of 26 families living in the small, rural village of a minority tribe in the state of Perak, Malaysia. An average of 4 – 5 members make up a nuclear family, that is, the approximate number of villagers is between 104 to 130 ($N=130$) people. Thus, at $n=40$, 30% of the population was reached. The sample size is considered sufficient as the goal as well as the reporting of the research is for descriptive purposes (Wolfer, 2007; Naing et al. 2006).

It important to note that the completion of the questionnaire was aided by students from the Faculty of Administrative Science and Policy Studies, Universiti Teknologi MARA (UiTM) Shah Alam. The students were at the location because of their project called the Ethnic Outreach. With a bag of gifts to tentalize a respondent, each students approached a Semaian and assisted them in completing the questionnaire. This act was extremely helpful as some of the respondents are illiterate. Consequently, this allowed for a highly credible response rate. Data analysis was executed using SPSS version 18 for descriptive statistics and ANOVA.

Also noteworthy is the limitation of this study. As evidenced from the scope, only one indigenous group was focused and generalizability of findings is restricted.

3. Results

From the forty questionnaires distributed, 39 (97.5%) completed ones were collected. The summary for the demographic profiles of respondents are showcased in Table 1.

Table 1. Description of respondents' profiles

Profile		Frequency	Percent (%)
Gender	Male	12	30.8
	Female	27	69.2
Age	Less than 16 years	11	28.2
	17-25 years	8	20.5
	26-35 years	6	15.4
	More than 36 years	14	35.9
Education	Primary 6	15	38.5
	Form 3 (Lower Secondary)	5	12.8
	Form 5 (Middle Secondary)	5	12.8
	Form 6 (Higher Secondary)	2	5.1
	Never went to school	12	30.8

Table 2. Computer ability among respondents

Item	Scale	Frequency (%)
Use e-mail	Don't know	30 (76.9)
	Weak	2 (5.1)
	Mediocre	7 (17.9)
Use word-processing software	Don't know	30 (76.9)
	Weak	3 (7.7)
	Mediocre	5 (12.8)
	Good	1 (2.6)
Able to name computer parts	Don't know	28 (71.8)
	Weak	3 (7.7)
	Mediocre	6 (15.4)
	Good	1 (2.6)
	Very good	1 (2.6)

Ability to use the mouse	Don't know	26 (66.7)
	Weak	2 (5.1)
	Mediocre	5 (17.9)
	Good	3 (7.7)
	Very good	1 (2.6)
Ability to surf the Net	Don't know	28 (71.8)
	Mediocre	10 (25.6)
	Good	1 (2.6)
Ability to use search engines	Don't know	28 (71.8)
	Mediocre	9 (23.1)
	Good	2 (5.1)

4. Implications and Discussion

It is important to critically evaluate the implications of the study. First of all, certain limitations have to be taken into account when considering the study and its contributions as some of these limitations can be seen as fruitful avenues for future research under the same area.

This study focused on the existence or non-existence of digital inclusion of an indigenous segment of society. Clearly, this represents a challenging task at hand regardless of ripple effect of specific interests that the study may have. In this study, the complex phenomenon has been studied from a rather narrow empirical perspective through the selection of a single population or case study. The design naturally brings forth limitations as far as the generalisation of the results of the study is concerned. Thus, the empirical setting, the Semaian from Kampung Bukit Terang, Kampar, Perak should be seen as a kind of pilot context on research pertaining to digital inclusion. On the other hand, this also represents the whole idea of making a case study.

Globalization has resulted in ICT being ubiquitous, but the unparalleled power of the Internet for communication and information is restricted to those with access and capability (Tsatsou, 2011). In achieving set targets and performance criteria for the nation, the government should not lose focus on aspects of culture and ethnocentrism, especially if they involve minorities like the *orang asli*. The fact that these indigenous people still live deep in the jungles and other remote locations, require the implementation of central plans to be sensitively treaded. The results are indications of social exclusion particularly in education where 30.8% never went to school and 38.5% studied up to primary (elementary) school. But at what level did they stop schooling? Consequently, this disadvantaged situation is mirrored in Table 2 where more than 28% are digitally illiterate. From here, significant transformation needs to take place. In fact, what is required is a change champion, one who is sincerely concerned about the *orang asli*'s well-being and social justice. Nonetheless, it is now clear that digital exclusion has grave implications for Malaysia. Given this information, policy makers should continue to promote digital inclusion by targeting resources and programs for specific dimensions (Yazdanifard et al, 2011; Salman et al, 2012; Wong et al, 2009), for example, ensuring a television set in each home.

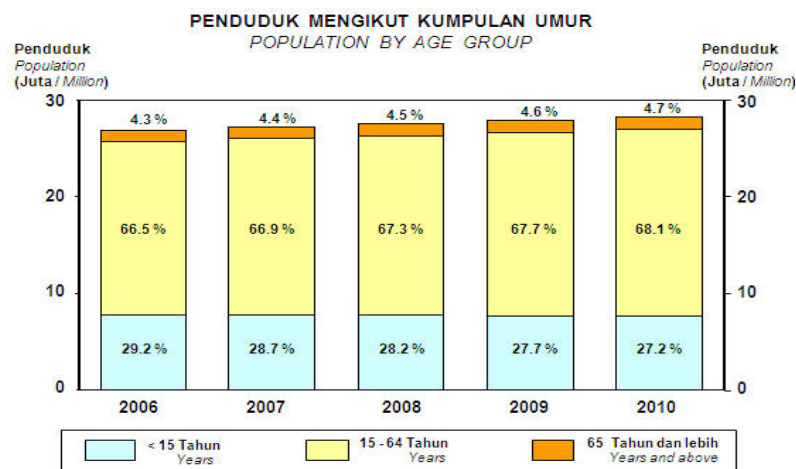


Figure 2. Population of Malaysia by age group (source: department of statistics, Malaysia 2010)

Table 3. Statistics on education in Malaysia (source: adult literacy - united nations educational, scientific and cultural organization (UNESCO), including the education for all 2000 assessment)

Youth (15–24 years) literacy rate, 2003–2007*, male	98%
Youth (15–24 years) literacy rate, 2003–2007*, female	98
Number per 100 population , 2007, phones	88
Number per 100 population , 2007, Internet users	56
Primary school enrolment ratio 2003–2008*, gross, male	101
Primary school enrolment ratio 2003–2008*, gross, female	100
Primary school enrolment ratio 2003–2008*, net, male	99
Primary school enrolment ratio 2003–2008*, net, female	99
Primary school attendance ratio 2003–2008*, net, male	-
Primary school attendance ratio 2003–2008*, net, female	-
Survival rate to last primary grade (%) 2003–2008*, admin. data	99
Survival rate to last primary grade (%) 2003–2008*, survey data	-
Secondary school enrolment ratio 2003–2008*, gross, male	66
Secondary school enrolment ratio 2003–2008*, gross, female	72
Secondary school enrolment ratio 2003–2008*, net, male	66
Secondary school enrolment ratio 2003–2008*, netm female	72
Secondary school attendance ratio 2003–2008*, net, male	-
Secondary school attendance ratio 2003–2008*, net, female	-

5. Conclusion

The conclusion as well as the limitations of this study also bring forth some fruitful and interesting possible avenues for future research that might be needed in relation to the theme of the study. The most important avenue for future research obviously lies in continuing the elaboration of the elements of the market process. A more thorough understanding of the market from the buyer's perspective could be achieved by considering the connections, hierarchies and interplay of the market process elements more explicitly. However, in this research the decision was made to explicitly separate the elements so that they each could be examined individually. This detachment can be seen to provide a first step towards developing a model for understanding the emerging market from the industrial purchasing perspective. The next step would be to identify the interconnections between the elements and to model the actual market process progress as an interplay of these elements.

From the results, it is deduced that the *orang asli* Semai are digitally excluded compared to other societies in Malaysia. The findings confirmed the existence of educational divide as well as digital divide. With the former, it is difficult for the government to pursue any ICT-based projects as these natives are socio-economically disadvantaged. However, the government can still reach out to the indigenous people as Malaysia's land area is small (328,657 km²) compared to the United States (9,158,960 km²) and Australia (7,682,300 km²) (Wilson et al, 2003). Socio-economic inclusion is possible with time, training and consistent enforcement (Shaffril et al, 2010; Rahim et al, 2011). This is where the concept of "People first, Performance now" should be practiced. By continuously compounding the benefits of education, the mindset of the *orang asli* can be adapted to accept that times have moved on and that the flora and fauna can no longer sustain their livelihood.

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