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User acceptance of Tamil technology in postcolonial Tamil Nadu

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Abstract— Technology has made considerable advancements over the last few decades. With over 70 million native speakers, Tamil could be classified as a world language. There have been researches specifically on the attitude of native Tamil speakers towards Tamil language and within the domain of Tamil computing. The predominantly native Tamil speaking regions of Tamil Nadu and Puducherry within the Indian Union, Sri Lanka, Singapore and Malaysia have had a colonial past. This research paper aims to present an empirical observation on the colonial influences towards user acceptance of technology in Tamil through a quantitative methodology and attempts to present the prevailing mindset of Tamil speakers and argues how it might influence the user acceptance of technology or software in Tamil which is the original contribution of this paper. This research paper uses the philosophical approach towards technology in the context of postcolonial Tamil Nadu to explore the acceptance of technology in the Tamil language.

Index Terms—Tamil , British, colonialism, technology, Philosophy. (key words)

I. INTRODUCTION

Technology increasingly intersect with social systems (Eseonu, 2014). In our previous research experiments, we focussed on the attitude of the native Tamil speakers on Tamil computing. The results of the previous experiments provided an empirical evidence of an 'unconsciously' favourable attitude towards English in the usage of technology. In this paper, we aim to approach the user acceptance of technology in Tamil from the philosophical point view with key focus on colonialism and whether there is any influence of the colonial attitude and language in the post colonial Tamil Nadu. The quantitative data was collected from participants residing in Tamil Nadu and a quasi- statistical evaluation was done to establish the relationship between some of the variables such as proficiency in a language, social attitude towards a particular language, economic opportunities of that language and user acceptance of a technology in the target language.

II. LITERATURE REVIEW

Tamil is spoken as a native language in Tamil Nadu, Singapore, Sri Lanka and Malaysia. These south east Asian

countries were colonised by the British for over two hundred years and therefore, the diaspora research suggest that the diaspora Tamils show a greater affinity and fluency in English than their native language (Das, 2011). Anita (2013) in her research on linguistic anxieties on the impact of English on politics, mother tongue and creative writing in India clearly expresses her position on the perception that the natives possess in the post- independence. Her research reports that the colonial master's language, English 'naturally' dominates the country which the natives on one hand view as a threat to their language but on the other hand, the colonial tongue has positioned itself in the economic front not just globally but also within the Indian Union. The author concludes that the natives, as a result of colonisation for many centuries have indigenized English despite their bitter experience during the colonial days and dislike for the language. According to Fanon, post colonial experiences could be quite traumatic and the transition may not be very easy (Asgharzadeh, 2003). In the research on Language, Education and Development: A Southern case studies, the author draws attention on how colonisation has totally destroyed the native language and culture. The natives without their knowledge submit to the colonial tongue even after decades of independence. In the case of the Ghana, the Ghanaian authorities argue that English is perhaps the only language through which they could unite the country the country that speaks over sixty different languages (Asgharzadeh, 2003). The author echoes Fanon's argument on the dominance of colonial language. The author states that the colonial languages such as French, English are largely viewed as 'progressive', 'impartial' and 'civilised' languages compared to the native tongues. The coloniser has achieved the agenda of subjugation and Fanon argues that the first attempt of the coloniser is to make the oppressed feel that the master's language is 'superior', 'better' and more 'civilised' than their own. And Fanon explains that they achieve mainly through economic value of the language. For instance, the French was given more prominence and economic value in Algeria. With reference to the Ghanaian society, in the post independence context, where English was viewed to be 'neutral' and a 'link' language, they have in the process unconsciously undermined the potential of their own language and culture and without their knowledge, submitted not the British but to their language which Fanon refers to as a 'psychological' trauma. Whilst the colonial powers used the language to their advantage, the oppressed, firmly believed in what was implanted by the colonial powers (Asgharzadeh, 2003). During the British rule,

English was the language of education, commerce and the symbol of 'civilised' – a term that Fanon uses to indicate that the coloniser attempts to subjugate the natives by referring them 'barbarians' and 'uncivilised' and by projecting the coloniser's language and culture to be more civilized. Post independence, the Tamils saw opportunity in English- of course a colonial tongue but, like the Ghanaian society, the non Hindi speakers especially the Tamils viewed English not just a 'neutral' language, but also to use it against the Hindi hegemony. In the early sixties, Nissim Ezekiel and Parthasarathy have hailed Ramanujan- a Tamil Brahman poet who used English as the main language to write- as the best poet in Indian English (Ramazani, 1998). It is interesting to note that English- a language that was met with stiff resistance before 1947 was more or less accepted as an indigenous language by the 60s. (Lionnet. 1993) presents an interesting study on Mauritius which has a history of multiple colonisers and a predominant Asian population. The majority of the Mauritians bow not only speak Creole but also to some extent their 'native' language like Tamil, Bhojpuri etc. The author cites that the first priority of official language and preferred use of language is English and French followed by their own native languages, which is reflective of influence of the colonial powers not just in the language policy but also towards the attitude towards one's own mother tongue.

There is perhaps very little or perhaps no literature or research in relation to how

III. METHODOLOGY

This research chose a quantitative approach. Twelve questions around language, proficiency and technology were framed based on the literature on postcolonial studies. The questionnaire was anonymous and no personal details were captured anywhere in the form. The quantitative data collection adhered to the university ethics policy and ensured fair treatment to all the participants to the best possible extent. The questionnaire was designed on google forms and the link was e-mailed to the target audience. A variety of questioning technique were used. Once the questionnaire was filled and submitted, the participant had no option of editing the response. All the questions were in English and extreme care was taken to ensure that the jargons (if any) were explained. The e-mail of the main author and co-authors were provided for any clarifications they may have. All the questions were made mandatory for the participants to answer however, the participation in this quantitative questionnaire was made totally optional to the participants and in order to capture credible responses for analysis, answering all the questions was a prerequisite.

Pilot questionnaire suggested that the filling up the questionnaire by a participant would take less than a minute as the questions designed were around participant's language proficiency and interaction with technology. The literature from post colonial studies formed the basis of framing the questions.

Once the response were obtained, the data was classified and the chi-square value was determined using the IBM's

SPSS software to establish the relationship between the target question- Does factors such as first language, language of instruction at school, social value of language to name a few, influence the user acceptance of Tamil technology in Tamil Nadu? Although, Tamil Nadu is a multi-cultural state, the focus on this research is English in the context of colonial and its influence in post colonial Tamil Nadu. Therefore, for the purpose of this research study, internal imperialism and colonialism before the British were not taken into account. The questionnaire was aimed at the target audience of Tamil Nadu residents and their thought perception of the language

A. Observations

- The response rate was quite poor.
- A total of thirty seven responses were received against the minimum requirement of thirty.
- There were no concerns or queries raised by the participants at any point despite the opportunity of doing so.

B. Sampling and selection of participants

The questionnaire itself was targeted at Tamil Nadu residents with Tamil as first language however, it was decided not to make it explicit on the questionnaire. The sampling technique used was 'convenient' sampling due to lack of time.

IV. AND DISCUSSION ANALYSIS

An overwhelming people who responded to this questionnaire were the youth whose age ranged between 18 and 25. 97.3% of the total respondents reported their mother tongue as Tamil. 78.4% of the total respondents claimed that they had close to excellent or excellent proficiency in Tamil. 59.5% of the respondents answered that they studied in a school where the language of instruction was Tamil. 29.7% said that they studied Tamil as a 'second' language. 75.7% opined that Tamil was perhaps the most useful language in Tamil Nadu. 81% of the respondents felt that one could survive with working knowledge of English in Tamil Nadu. 83.8% of the respondents either strongly agreed or agreed to the statement relating to ease of use of technology in English than Tamil. 73% of the respondents answered that it the technical feature that mattered most to them over other options such as price, availability pot technology in Tamil. 24.3% said that availability of technology in Tamil mattered most to them.

There were reasonably large delays in getting the responses from the participants and quite often needed reminders and follow ups. A Pearson Chi-Square test of exact significance (2 sided) was computed using the SPSS software, IBM's SPSS software is a predictive analysis software that offers advanced techniques and facilitate statistical analysis.

The question on using Tamil on technological devices was chosen as the target question. The relationship of this question was being explored with other variables such as gender, first language, social importance of language to name a few. Our

previous quantitative and qualitative experiments suggested that there exists a relationship between variables such as social importance of a language, first language, opportunity to use that language in the given geography, economic value of that language to name a few. However, there was no statistical evidence to prove or disprove the inference which is why a statistical approach was adopted in this experiment.

There exists relationship between using Tamil on technological device and gender, language of instruction in school, usefulness of Tamil in Tamil Nadu, priority accorded to language whilst buying a technological device and a language's social value. The Pearson Chi-Square values obtained are 0.001, 0.001, 0.004, 0.005 and 0.004 respectively. If the value is less than or equal to 0.005, then it suggests that there exists a relationship between the target question and the variables that were associated with the target question. If however, the value is greater than 0.005, then it suggests that there exists no relationship between the target question and the chosen variable.

Variables that fetched values greater than 0.005 against the target question of the using Tamil in technological devices are age group, first language, Tamil proficiency, English proficiency, Tamil as a second language and ease of usage in Tamil. The values obtained were 0.014, 0.024, 0.025, 0.025, 0.019 and 0.010 respectively which suggests that there is no relationship between using Tamil on technological devices and the variables for which the values were obtained. It is interesting to note that one of the most common reasons given by the participants in qualitative experiments for not using Tamil on technological devices was 'ease of use of the language' and from the values obtain, we could safely argue that ease of use of a language, Tamil in this case, has very little impact on the 'actual' usage of the language in the technological devices. (Eseonu, 2014) argument of public engagement with the language and the intersection of social systems with technology and innovation is reasonably applicable in this particular case. In the popular TAM methodology, external variables influences the perceived usefulness which in turn influences the attitude towards using the system. (Sheppard, 1988) claims that there is considerable evidence that the intention to perform a behavior predicts that actual behaviour.

From the results obtained, 81% of the thirty seven respondents either strongly agree or agree that working knowledge of English is sufficient to survive in Tamil Nadu. This is quite consistent with Fanon's argument of the psychological trauma that the society goes through in a post independence scenario. The response from sample population, particularly on their choice of language and usefulness of English is a reflection of their submission to the colonial construct.

In a response to the question on self rating proficiency in Tamil and English, almost one hundred percent of the respondents have rated their proficiency ranging from average to excellent which is in contrast to the observational studies on the attitude of Tamil speakers towards Tamil Computing which showed a heavy element of code mixing (Raj et. Al,

2015). The of majority of the respondents of this questionnaire – 62.2% of the thirty are male. The Chi- Square test show that there exists a relationship between gender and the use of language in technological devices. It also shows the gender bias in the data and that the results and inference from the obtained data cannot be applied to a larger sample population from the same geography but could predict the possibilities of similar observations in the target region.

From the Fanon's approach of viewing the colonial tongue as indigenous so as to accommodate the colonial master is evident from the literature where the Western world and language continues to motivate and dominate the natives (Fuller et Al, 2010) (Kalpagam, 2005). The responses from the sample population seem to be in agreement with the literature where the respondents have preferred English, a colonial language over Tamil as their most preferred language on the technological devices.

V. CONCLUSION AND LIMITATIONS

The analysis and results do suggest a relationship between various parameters such as gender, language of instruction in school, social value of the language and so on. This could provide some amount of direction and may possibly explain the inability to gain a wider acceptance and usage of Tamil language in technology. This research paper's original contribution lies in establishing a relationship between the target question of using Tamil in technology and other variables primarily around the perceived usefulness of Tamil language in Tamil Nadu. The statistical results provide reasonably convincing evidence though with a very small sample population, the reasons why social factors needs stronger consideration whilst dealing with technology especially in languages and societies that has had a colonial past. The results and experiment could be extended to any linguistic society that has had a colonial past. We are of the opinion, that perceived usefulness of a language within a society plays a critical role in shaping the requirements of a language based technology such as the speech to text or speech recognition which in turn is influenced by the colonial policies that the society would have already 'submitted' to. Therefore we opine that any technology involving a language with colonial history needs greater and finer attention to the social behavior towards the language and how those may affect the acceptance of a technology in the target language.

This experiment was carried out with extremely limited number of sample population. We believe that we have laid a foundation, facilitating 'socio technological' research involving both the aspects of social science and technology. This was an anonymous questionnaire and therefore, it is probably hard to comment on the possible region from where the participants belonged to as our primary interest was towards Tamil speaking residents of Tamil Nadu and therefore, more needs to be done so as to provide a region specific or generic conclusion. The data values needs to be further classified for a more detailed analysis and possibly include a larger sample size. The limitations shall be worked upon in our future

experiments and research. Obtaining responses from a huge sample size that we initially intended, was extremely challenging which in our opinion to an extent contributes to the bias in the responses received.

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