Impactful social reach to indigenous communities

Abstract

Indigenous community's basic unit is indigenous family. Providing impactful social service to such people with a culture and language is the real issue. In this paper, we propose a theoretical model to embed in such a society, which helps document indigenous culture, ideas, events and language of indigenous community. Hence, it provides a basic facilitation unit for other government organizations, and policy maker in the world to understand, educate and facilitate such people.

Background:

Indigenous languages are dying, and according to UN reports, one of reason is that native people of a language are shifting to areas where socio-economically better languages communities are progressing. Education, health and career are three key mobility factor of people, hence, impacting the indigenous language and the communities. It is important to preserve the language community, supporting culture and history.

A novel idea is to embed an interactive artificial intelligence framework to educate on key dimensions of education, health and employment issues in the indigenous language speakers.

Introduction:

UNESCO expert in a report expose nine factor of vitality and endangerment in measuring the level of endangerment of the world languages. Out of those nine, three are directly involved with the interaction and behavior of the community individuals. We argue that these are primary internal factors.

Intergenerational language transmission

"Our forefathers were good at indigenous language we spoke at home. Since I have married outside of family, and out of my hometown, I can not say that for myself". Life is busy and intergenerational language transmission is getting poor day by day. We see that availability of mobile and internet access to masses has further escalated the distance within the families. Two or three decades back, the head of family ,here in the region, tends to be very strong headed. Strictness and rules were for all and abide by all the family members.

Their focus was more on family unity, reunions and sharing. Therefore, more quality time spending with the family hence the tie with the culture and language. It's not true any more.

Absolute numbers of speakers

The number of speakers are reducing in the community, and as we know that most of communities, town and cities are unplanned, there is no direct way to target an indigenous community speakers. Immigration of people for better facilities are one of the other causes here. The reverse is hardly seen, that is, a smaller community is joined by a member outside the community. It makes sense if we say the growth may come majorly from within the community. For example, inter societal marriages with dominant gene coming of the indigenous community.

Community member's attitude towards their own language

There is no sense of direction, a collective thinking process, a political and social representation in the community. The people may become indifferent to what is happening to their cultural, traditions, and language in a slow and unconscious level.

Proposed Model: Educate mother, child and young

Family units in the society grow together. Building a health, education and employment facility for the community is the first step toward providing a direct impact for the society. The second step is to provide interactive staff who are native language speakers. Third step is to engage mothers, children and young to understand, preserve, and document their language by using Artificial intelligence.

Approach to maximize interactivity

The health care support for mothers is required for any community. Frequent visits to health facility is a necessity, and hence a more interactive session for the native medical specialists to carry on for language assessment. Conversations in native language helps rapport building with the patient. It can be an opportunity for the speaker to contribute for language preservation and recording culture history.

Knowledge Levels To achieve:

Interacting with these people who have certain specific language skills is extremely tricky, and we may able to fail. If we fail to engage them, we will lose the opportunity to gain three levels of knowledge areas we want to learn about the indigenous languages and communities. Whether endangered or not, there will be no way to document the language. The culture and traditions of community will diminish with time.

Level 0: Health, Education and Employment Information Facility

A basic level, we assume that we do not have enough information about our community. What are there issues regarding health, education, and employment. And we want to provide a baseline knowledge on the active issues in the society. A center which can provide a basic set of information about health concerns,check ups, appointments for doctors and advance medical referring. Similarly, a zero level information center of education and employment facility.

Level 1: Health, Education and Employment Basic Care Facility

Knowing from the level 0, we can setup a basic care facility which can provide services such as outdoor patient facility, educational mentoring, career oriented skill or life long learning skills.

Level 2: Health, Education and Employment Advance Care Facility

We can share the knowledge, and help all of the communities on life long medication and health care, job hunt, and advanced career mentoring in special cases.

Artificial Intelligence Driven Approach to Education Facilities:

We present a basic model, an ai driven health information system embedded in such a region that can help in decimate information on education, life saving guidelines, and employment.

Artificial intelligence with the current rise has made us rethink that, may be some of the society workload can be put on intelligent machines. This involves learning the languages, speaking in the conversations, and games for young, which might attract them as already in Pakistan mobiles are ubiquitous. Natural Language interfaces are appealing, and show a great attraction to the native speakers. Dialogue systems are not common in public usage till yet, but more of the personal interest has been seen in the recent years, for example SIRI and Alexa. We present key artificial intelligence driven thoughts for each level of facility, and the areas of further inter disciplinary research.

Phase 0: Bot for information dissipation

Raaji, a startup that's going to educate the women about their health requirements and needs. This is just one of such example. We can produce software applications that

helps document language, help us bringing closer to the community and bridge the connection at human level.

Phase 1: Human Assisted Behavioural Consultant

Human Computer Interaction (HCI) is very crucial in understanding human interaction, emotional attachment, connection with computer systems, and with latest research in interfacing with people having special needs. HCI also provides evidence in bringing trust issues to research such as the human usage of interface under stresses, deprivation, and critical pressures of life. For Instance, how much a bot can be trusted for a health advise or tip suggested by targeted people. In this regard, much work has been done in building trust by using social development work in various parts of world, proving that it requires time and energy to connect with underprivileged people. Thinking that for a bot or mobile technology is immersive.

Phase 2: Distance based Health, education, and Employment Facility

In the end, I would say, world is growing, and is becoming smaller and smaller (as we see it), it is time that we get closer and closer to nearest one, and be connected. Or let them connect to us. Experiential learning based module, artificial intelligence framework, which can help understand the distance based utilization of resources.

Conclusion:

There is a lot of potential in mixing AI with humans being understanding of what they want in a specific situation. AI for underprivileged is open research area. An approach where there is more interaction with software interfaces, bots, and voices can lead to more reach. For this purpose, we suggest that information on health, education and career among indigenous communities can be served as good case study. In future, we want to research more on the viability of the level 0 of the structured project.

References:

1. Language shift in Dir Kohistan, Hidayat ullah and Main Shah Bach, IYIL2019
2. Documenting Endangered Languages, Inaam ullah, CLT12
3. Mother tongue-based multilingual education: the key to unlocking SDG 4: quality Education for All
4. The language of Employment: The case of Pakistan
5. Raaji, Startup at I2I