# Harnessing the Power of Technology to Address a 19th Century Challenge; Moving closer to Adopting a Universal Auxiliary Language

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## Abstract

*It was in the 19th Century that the Persian educationalist and philosopher, Baha'u'llah, wrote to sovereigns, leaders and members of parliaments throughout the world urging them to adopt a Universal Auxiliary Language (UAL) and script for all peoples of the world. Despite the fact that we are living in what has been heralded as 'The Information Age' the world at large is no closer now to resolving the challenges faced by humanity then we were two centuries ago. Rather we see widening rifts between abject poverty and wealth, education and illiteracy, responsible governance and corruption, support of ecological-systems and environmental desecration – none of which can be resolved by any one government or peoples alone. This paper examines how recent technological developments, such as the One Laptop Per Child (OLPC) initiative and WeSay, may hold the potential to enable a grassroots dialogue focused on finding a solution for these challenges possible. Maybe the time is ripe to heed that more than a century old recommendation.*

## 1. Introduction

As members of the human race we are endowed with both the powers of critical thinking and language to an extent that no known animal species can compare. The former enables us to seize opportunities, understand consequences, solve problems, invent and bring vision to reality; the later allows us to work collaboratively, discuss solutions to problems, combine our strengths to ensure survival, establish meaningful relationship and secure quality of life for ourselves and those around us. When the Persian born Mirzá Husayn-'Alí Nurí, an educationalist and philosopher known to those who followed his teachings as Baha'u'llah, first introduced the idea of establishing a Universal Auxiliary Language (UAL) the imperialistic world of the 19th century was more concerned about control, either maintaining it or seizing it, than assembling for a common goal.

Essentially the purpose of the UAL is to address the need for different peoples of the world to communicate and thus to collaborate. Having a UAL would remove pressure from natural aggrandizement of majority language groups and therefore preserve minority language since each person would keep their own mother tongue and thus minority culture. Establishment of a UAL would require worldwide bilingualism. Everyone would maintain a native (in some cases a minority) language for communication regionally. In school, students would receive instruction in only two languages, their native tongue representing the means to express their cultural identity, values, literature and traditions in addition to the UAL which would be used to communicate their unique cultural identity and perspective in all matters of the economy, science tourism, commercialism and politics in both international forums and when communicating with foreign guests. Despite the lack of inertia from the leaders of the time, the idea went the equivalent of 'viral' over the period of 1868-1877 during which time a strong written recommendation was received by the sovereigns and ruling leaders of the time from Baha'u'llah urging them to "select ye a single language for the use of all on earth, and adopt ye likewise a common script… for this ordinance is the means for the accomplishment of unity and the supreme instrument for the establishment of social intercourse and loving fellowship between peoples of different lands".[1] (Baha'u'llah's communication was originally scripted in Arabic and later translated)

When we think of the global crises now plaguing our future existence, language may not be positioned high on the list of obvious priorities for governing bodies to consider resolving or committing their resources toward protecting. Though this rather simple, often taken for granted, aspect of life should at least be understood within its appropriate context. As stated in Baker-Malungu, [2] while globalization has enormous potential for enabling participation from a greater diversity of individuals there is no denying the fact that many aspects of life, including language have been made subject to free market rules. The present hegemonic structure of the economy has created a situation in which half of the world's populations have come to speak one of fifteen major languages and many minority ethnic tongues are close to extinction. As Britten argues when 'presented with alternative languages, most people have naturally chosen the most popular so as to access the greatest amount of knowledge and maximize commercial and educational possibilities for themselves and their children.'[3] National language and/or educational policies, pressure from

majority language populations and certainly the written legacies of languages allow some to be communicated and preserved more robustly than others. So one may question why this is necessarily a bad phenomenon if ultimately it means that a larger number of people can communicate to a greater number and diversity of individuals in the world? Probably the best answer to this comes from the work of linguistic researchers on the National Geographic – Enduring Voices Project, [4] for minority languages are becoming extinct at a rate that far exceeds that of species extinction.

In the year 2001 a minimum of 6,912 identified spoken languages existed worldwide, [5] it is estimated that by the year 2100 – unless profound changes are made to ensure their preservation - half of these will have become extinct. As explained by linguist, Dr. K David Harrison the loss of language is equivalent to erosion of the human knowledge base. 'When we lose a language, we lose centuries of human thinking about time, seasons, sea creatures, reindeer, edible flowers, mathematics, landscapes, myths, music, the unknown and the everyday'. [6] Along with language loss is the loss of self-efficacy of that linguistic group; for once an individual's values are shifted, a period of adjustment is necessary before one can regain confidence and with the deterioration of confidence ingenuity and creativity are sacrificed as well.

## 2. Ensuring language preservation

In his book *Planning Language Planning Inequality,* James Tollefson[7] blames the present political system worldwide for the institutional constraints created by dominant groups to prevent linguistic minorities from accessing social and political institutions (whether intentioned or not). He suggests that in this way inequality between minority and majority groups are maintained. His work largely examined language policies in Britain, Iran, China, the US, the Philippines, Australia and Yugoslavia, most of which were established on the basis of either maintaining or gaining power in the global marketplace. An essential aspect of establishing a UAL would involve the process of not only governing bodies but representatives of linguistic groups coming together to select, either from existing languages or artificial ones, the singular auxiliary language that all would be committed to learning. While it is not the objective of this paper to promote or encourage the adoption of any one language, the act of doing so will most certainly be a point of political contention for many countries and cultures considering the fact that we can observe the overall impact that linguistic dominance affords its stakeholders.

When the European Union (EU) formed in 2003, it did so with the honorable intention of maintaining a policy of respect for its diverse linguistic communities; however the reality of giving equal voice to 21 different languages may have been an overzealous goal. When we consider that on average 20% of the United Nation's annual budget is consumed on interpretation and translation costs alone (this representing only 6 major languages that are the standard – we can only image the cost for the European Union which has 21).[8] The process of analyzing acceptable candidates for an International Auxiliary Language, to be adopted for use in the European Union, provides good insight into the obstacles that will have to be overcome in the selection process. While English has been referred to, even supported by UNESCO as the de facto global language – the probability of the European Union accepting this as a serious candidate is fraught with political controversy. Gobbo suggests that the language chosen should meet a minimum of three criteria: relative ethnic and political neutrality (for Europeans), robust regularity to be learned quickly and functionality. [9] He considered, among others, artificial languages such as Interlingua, Ido and Esperanto all of which were designed for the express purpose of creating a UAL; none of these unfortunately managed to sufficiently meet all his criteria. In fact Gobbo's three criteria are too limiting to sufficiently evaluate effective candidates, for even if the EU were to select a common auxiliary language it would be negligent not to consider communication with greater world linguistic populations outside the region for sustainability. In fact globalization presents a very unique opportunity for the world to consider establishment of a UAL based upon the fact that the interdependency of nations has reached an unprecedented level.

The World Language Process (WLP)[10] is a nonprofit organization, the origins of which was established in 1975 under the auspices of the International Language Institute of Canada and is comprised of linguistic experts from 32 countries around the world collectively united in their mission to see that the vision of the UAL be brought into reality. The WLP envision that the language selected as the UAL should be gender neutral, should be phonemic in nature meaning that sounds are pronounced as they are spelled, it should be syntactically simple (eliminating the need for idiomatic expressions) and should allow for elementalization of vocabulary (e.g. a new adult learner who has an understanding of the syntax could initially function in specific situations through initial knowledge of a few hundred function words). In addition the language should have the ability to withstand creolization from existing native languages that would evolve over time. While historically creolization came about as a result of population displacement, slavery or plantation politics – the evolution of the UAL may be an opportunity to shed

a positive light on this process. While these few criteria seem to be an improvement over Gobbo's three, there would need to be a consensus among the selection committee which may see fit to expand this list.

## 2.1. Rethinking educational models

In recent years linguistic experts have begun research into multilingualism as a means to protect minority languages. Dr. Jonathan Britten suggests that 'combining native language education and International Auxiliary Language (synonym for UAL) education might free two birds from one cage, slowing or even reversing the current trend toward minority-language extinction while co-evolving a very rich global second language.'[11] In fact current research suggests that learning a foreign (second) language enhances a person's cognitive reserve which can assist to eliminate or delay the onset of dementia in older age. [12] In other words, there appear to be multiple arguments in support of moving toward a worldwide bilingualism that would be necessary for the establishment of the UAL.

David Lightfoot's [13] seminal research into how languages are acquired and emerge demonstrates how linguistic change is a result of adaptations made by children. In setting out to explore what Chomsky [14] had previously termed 'a natural language faculty' which he defined as a characteristic inherent to the human species, Lightfoot discovered that people have their own internal system, a grammar which develops in them in the first few years of life as a result of an interaction between genetic factors common to the species and the environmental variations in primary linguistic data. This grammar is indicative of the person's linguistic range (e.g. the kind of thinking that an individual may communicate and how it is communicated). When differences are heard, children are capable of converging in a different system; this may perhaps be the key to the first instances of a new Universal–language system. What makes this work remarkable is the idea that if all humans are inherently born with this facility – there may be a possibility of reactivating it later in life for the purpose of acquiring the UAL while simultaneously co-evolving the acquisition process together with native languages among children through school and elder mentors.

Unfortunately acquisition of the UAL will be limited for those individuals and communities who do not have access to education, and we know that as reported by the UN Development Organization, 'a total of 114 million children around the world do not get even a basic education.'[15] Another challenge to overcome is a change in our traditional understanding of how formative education should be administered. While there are a number of successful school models using a bilingual approach to education, this approach is not presently widespread nor have the majority of educators been trained in this form of pedagogy. As well, while blended learning environments show promise for enhancing future teaching and learning experiences, this form of education is contingent upon individuals having access to the resources that are necessary for this form of learning, school districts providing the infrastructure needed and adequate training for educators to facilitate this model.

Despite what seems to be unfathomable obstacles, the recent economic success enjoyed by Brazil [16] provides a glimmer of hope that the end goal is attainable. Largely through a policy entitled 'Bolsa Familia' (Family Fund), in which poor families received government subsidization if their children attended school, under former President Lula da Silva's eight year term, 20 million Brazilians have been lifted out of absolute poverty and another 31 million have joined the middle class. When people have access to basic amenities such as food and shelter, they have greater dignity and hope. People are able to move beyond the state of simply surviving. They can be productive, contribute to the community and send their children to school adequately nourished for learning. Society as a whole benefits and can celebrate the fact that its citizens enjoy a reasonable standard of living.

## 3. Promising technological advancements

There is no denying the potential of the digital age for simulating regulation, an essential aspect in the successful management of (heritage) language acquisition and preservation. Of particular importance is the recording and preservation of authentic language usage. While members of minority language groups have been or are becoming aware that the disappearance of their linguistic and cultural traditions warrants immediate action. There are some cultural boundaries that make access to authentic language users and usage difficult. This is certainly true when outsiders are spearheading the preservation process due to mistrust or perhaps historical precedents that foster insecurity and concern among the target language group. Successful attempts to impede extinction of languages will require attempts to implement technology in an appropriate manner while simultaneously overcoming the threat that out-group linguistic researchers pose. A pilot-study working with the Navajo language elders in New Mexico suggest that the problem could be resolved through the training of in-group language researchers [17] with the duo-goal of enhancing the value of preserving native languages among youth via their active participation in the preservation process. An important development that could assist in expediting the collection, classification and

management of the data is an open source software application that was designed to involve language community members in the description and documentation of their own language into a digital dictionary entitled WeSay. [18]

At present negotiations are underway for the collaboration of WeSay and the One Laptop per Child (OLPC)[19] initiative which has set the modest objective of transforming primary education in the developing world by providing poor children with access to rugged, low-cost, low-power, connected laptops designed to facilitate collaborative, self-empowered learning. In its 2010 annual report, the OLPC had successfully overseen the distribution of and training for 2 million of its XO computers in 40 countries since beginning production in 2005. In and of itself the OLPC project could significantly expand the language diffusion process and pioneer new pedagogical strategies, thus giving hope for the realization of the UAL in the near future. Long term study will continue to evaluate this unprecedented opportunity to understand what happens when young children are given ownership of a connected, robust, low-power tool for learning. In addition to enabling its users access to international communication the OLPC hardware is equipped with state of the art software including programs that allow for documentation of minority languages. When previously silent minority participants begin to tell their stories it will be possible to document the process – essentially we will have the capacity to track the evolution of the UAL as it unfolds – a historic first.

## 4. Conclusion

The objective of this paper has been to raise awareness of the need for not only dialogue but serious action to be taken in averting the cultural crisis that will ensue if language extinction continues unchecked. As leaders, educators, professionals and members of humanity, we have a responsibility to ensure future generations inherit the wealth of human knowledge that has accumulated over the ages. It is plausible that the tools of the 21st Century now enable us to address that 19th Century challenge presented to us. Adoption of a UAL could be the means to address many of the global challenges presently looming before us. Can we conscientiously allow this opportunity to pass unheeded for yet another century?

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