Language Technology for Malayalam: Seminar. Tellycherry, Government Brennen College, 30, March 2004

Malayala Granthasoochi 2004 of Government Brennen College, Tellycherry: The first electronic catalogue in Indian languages

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Malayala Granthasoochi 2004 of Government Brennen College; the first electronic catalogue using search mechanism for original Malayalam script has become possible due to the research and development work undertaken by many individuals and organizations during the last decade. A few words on the earlier attempts as well as the research for developing script and DBMS applications in Malayalam that the computers can search and sort according to the syntactic and semantic relations will be relevant in this context.

The scholars engaged in standardizing the Malayalam script for use in ICT based systems saw computer as another form of typewriting machine. They never cared to think how the practicality and beauty the Malayalam script achieved through more than one and half century of its evolution can be sustained and used in the new environment also. This has resulted in the deforming of Malayalam script to adopt it firstly for typewriters and then for computers leading to total chaos and confusion. It is in this situation that Rachana Aksharavedi an NGO put forward the proclamation Our Script for Our Language. The main aim of this group was not only to stop the further destruction of the original script. Their efforts were intended to regain the power and strength of the mother tongue, Malayalam. Open true type technology that can be applied in Windows and Linux was their dream and they have materialized it by now. They view that Malayalam script currently known as modern, new, standardized etc are fast loosing their relevance. Restoring the original script of Malayalam is in truth knowing the spirit of the region's culture. It is the contribution of this NGO, which enabled the development of this first digital publication with Malayalam DBMS. But there is another earlier attempt also in this line.

Historically the first attempt to develop an electronic catalogue in Malayalam script was that of Kerala Sahithya Akademi. It is a high-end project when the cost is compared with the present one. Akademi has entered data of approximately 50000 books using a script specially developed for that project. But even after five or six years they could not bring out it as a CD Publication. There may be many reasons. One can be the technology used for Malayalam interface. The functionality and aptness of the package can be tested only if it is released and put in the hand of public for use and review. The successful blending of computer and documentation technologies by experts from both fields and ICT literacy of decision makers involved are

crucial in a project that has to embed language technology. We have to wait and see how for Akademi has succeeded in that venture. The second attempt is by Sister Annie Felix of Vimala College, Thrissur, Kerala. But that project also has not yet been published.

Malayala Granthasoochi 2004 uses the original Malayalam script. The DBMS programme M-ISIS used here was developed somewhere in 1998 by K H. Hussain of Kerala forest Research Institute, using UNESCO's CDS/ISIS as back engine. This package was also the first localization of UNESCO's DBMS in any Indian languages. Sri K. H. Hussain was also in the team, which led the language campaign for original script. He has also developed in 1999 Nitya Archive a package for developing full text digital library, which is the first solution for digital library, offered from India. It also uses UNESCO's CDS/ISIS as back end search engine.

We have to remember the contribution of Sri. K.M Govi also on documenting our literary heritage which has no parallel in any language of the world. His Malayalam Granthasoochi published by Sahithya Akademi in print which runs into almost ten volumes and more than 10000 pages is a complete documentation of the books ever published in Malayalam. It is the result of devotion and untiring effort of a saintly person through almost forty years. In no other Indian language such an initiative was ever undertaken or completed. Even institutions spending crores of rupees, work of many people and years for such documentation work could never successfully finish such a project in India. This great man in his saintly secluded life still devotes the days and nights for watching the new Malayalam publications and documenting them. The data from printed volumes compiled by him was used by Kerala Sahithya Akademi for its electronic catalogue project. The State or the organization that has utilized his work has never acknowledged or rewarded him for the work in a proper way it deserved and they have also not effectively utilized his work for the sake of the society because they got it without any effort or expense.

When compared to the quality, standard and precision of the records in the complete and authentic bibliography of Malayalam produced by K M. Govi, the content in the present publication may be inferior. It is K.M. Govi's Malayala Granthasoochi that deserved to be published in digital form, which will be of use to Kerala and the whole world. If Government or other organizations could use such technology to publish a digital version of Granthasoochi of Sri K M Govi, which the developers of this product claim to be achievable in five to six months, it will be a great service to conserve our cultural heritage. It is a play of fate the enables this catalogue to use the Malayalam language technology first.

As Kerala Sahithya Akademi could not release its Granthasooji in electronic form till now; Malayalam Granthasoochi 2004, technically becomes the first digital catalogue in original Malayalam script that can be sorted, searched and processed in DBMS as per syntactic and semantic relations. It is probably the fist such successful attempt in any of the Indian languages.

Success of this venture also questions the concept of considering computers and Information Technology as a distinct discipline. Actually computer is a tool. A tool for the linguist, historian, mathematician, and documentalist to do his research, teaching and development more efficiently, speedily and with unprecedented strength that can be given by these tools. This is one of such rare occasions where IT has been successfully used in developing applications in local languages and scripts by docuemntalists and linguists an area in which the computer experts could not bring results after decades of research and development. The experiment has proved that our original Malayalam script which has evolved through centuries which is our heritage has not only the beauty and strength in the aesthetic sense but also is more scientific than all its recent modified versions developed for their processing by typewriters and computers. Development of the present product with DBMS and search mechanisms having original Malayalam script is proof of the power of original script and is a great achievement for all involved.

The library professionals are the first to seriously encounter the difficulties in using script of another language (mainly transliteration into English) for documenting records of a specific language. This is the method followed by documentalist for decades. The transliterated words will never reflect the sound and meaning of a word in original language. An example is the title of the famous novel by Vaikkam Muhammed Intappoppakkoranondarnnu. The transliterated word can be read in a dozen ways and will in no instance reflect the original sound of the word. So development of programmes in regional languages using original script is the only solution that can enable information systems related to a specific language, region and culture.

In the region in which the Brennen College is situated many books have been published in Malayalam in the early years of printing. Many of the earlier Malayalam publications that originated in this region under the initiative of Basel Mission which introduced printing in this part of the country are available only in a few libraries or private collections of the region. The Brennen Library with 22000 Malayalam books is one of the biggest Malayalam collections in the State and many publications available in it on areas like, Kerala's history, culture, arts, literature and society published during the first quarter of the Century are not even present in Kerala Sahithya Akademi. Many of them are in brittle condition and any further handling of such titles can permanently destroy those invaluable heritage items. But presently digital technology enables their conservation by conversion to digital media without causing any harm to the book. It will be a great contribution to our cultural sphere if such books can be completely digitized. UGC and the university should support the college to digitally archive such rare collections. An NGO named Centre for South Indian Studies has already offered to support the college foe digitizing selected items from the collection. Malayala Granthasooji 2004 of Brennen College becomes very important in identifying rare items of research value as well as creating awareness about the availability of such rare and unique documents and their bibliographic control. This digital catalogue in CDROM can help to extract the use of the rare collection of Government Brennen College for research on the region and its culture.

As remarked by Prof. P.N. Moodithaya, the noted writer and linguist on Kannada IT can contribute immensely to the empowerment and emancipation of the majority of people living in rural areas in economically backward conditions. But this requires putting digitized information in local language like Kannada and Malayalam that people may require like on hygiene, farming, subsidies, supports etc in place before spreading fiber optical cables and fitting computers and communications stacks which are to carry this information to users. This we have never cared for. Developing digitized contents as well as applications to manage and service with that in languages of rural folk is very important. This ICT venture using local scripts is a forerunner of research and development on that line.

As remarked by Sri. K.M. Govi who has reviewed the Malayalam Granthasoochi 2004 the collection, which is covered by this catalogue, covers very rare and otherwise not available Malayalam Books published up to 1940. Hence this tool will be of great value to students and researchers. Now the awareness about the college's rich collection will go beyond the boundaries of the college. h the present product a book can be searched by author and title as well as keywords contained in the title. Being a rare and rich collection as suggested by Sri. K.M Govi the publication will in its future editions provide facility for search by year of publication also and will incorporate more details of books like short notes.

For almost a decade State and our institutions are engaged in Information Infrastructures State wide and campus wide. In computers, cables, LANs, WANs, V-Sats we have already spent millions of rupees. We claim that these are going to make information accessible to the un reached. But from an Internet Kiosk at Panchayat office forming part of these infrastructures can a farmer or villager get information relevant to his needs. Information like a section of Panchayat Act, A Government Order relevant to him, information for facilities of higher education available for his daughter who has just completed+2, a Gazetteer of the region, a pesticide to be used to control Mandari disease or some aspect of sustainable farming and animal rearing methods relevant to that locality. Can he get any thing in Malayalam the only language he knows or even in English at least which he can try to understand with the help of some others. No. he may not get any of these in Malayalam or even in English. But he may get any government document of USA, or the educational facilities of UK and their application forms, any book from Library of Congress or market information of grains from a Japanese village within seconds at the Kiosk in the Panchayat. Is this the information he require, or which is relevant for development in the region.

One of the reasons for this failure is that such locality relevant information is in Malayalam and can be disseminated in Malayalam only. But Malayalam script is still not viable to the computers of State and its institutions. Another is that in Information Systems/Infrastructures we have disregarded information part. We still consider mere computer and communication stacks as Information Systems. Our content is not there and we have never cared to develop applications for managing our content in regional scripts or even content itself. So even after two plan periods after we initiated IT

development projects, even after the physical systems we acquired and placed have become obsolete three or four times and got changed, even after millions of rupees has been wasted as cables and computer stacks, we have not developed information which is the life blood that is to flow through these physical infrastructures.

In such a context the release of Malayala Granthasoochi 2004 is an historical event. Here in this humble product consisting of about 21600 records, which needs access through various aspects and which needs mechanical sorting in different ways and needs automatic establishment of syntactic and semantic relations a DBMS and searching and sorting mechanisms for original Malayalam script is successfully used.

The constraints in developing information systems in Malayalam stands removed with the development of the programme meant for sorting and searching in Malayalam developed by Sri K H Hussain and his team. The nature of this venture in which Linguists, documentalists and other scientists developing an application which computer people could not yet achieve; points out that tools should be shaped for full functionality by the people who have to use it and that their involvement is important.

Statewide Information Infrastructure, in which major part of the content to be developed according to the requirement of 95 % of our people which will be in Malayalam, is to be developed in local scripts itself. Now it is for the Government and concerned organizations to utilize this technology and further improve it. This is a historic event relevant to ICT application for participatory development as well as providing information services at grass roots level.

References

Govi, K.M. Kerala Granthasoochi. Thrissur, Sahithya Akademi, 1974-1990

Hussain, K H. M-ISIS. Trivandrum, CIRD, 1999.