

Report on the Meeting of Project Country Partners with Policy Makers

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Madan Puraskar Pustakalaya

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Background Information

The boom of the Information Technology (IT) Industry in Nepal in the recent years have shown that the private sector is very much capable in terms of delivering the required software and undertaking large scale endeavors. The government sector has also considerably large amount of contributions in the field of IT from the perspective of infrastructure building to launching several useful projects. However, there still remain enough rooms for co-ordination in between the two sectors and much can be achieved if these two bodies went hand in hand. And this becomes still significant in terms of the successful deployment of developed software. Without standardization issues resolved by the government and in the absence of concrete policies from the same on several issues related to IT, it is almost certain that we cannot attain the expected momentum.

One of the areas of focus of the PAN Localization Project Phase II (May 2007-September 2009) is on trying to work out with the Government to develop standards and policies for the successful implementation of the IT works both in terms of development and deployment. As part of the project's program, the Nepal Component, i.e. Madan Puraskar Pustakalaya is to conduct meetings with Policy Makers semi-annually, i.e. in every six months time.

The following agendas would be discussed in the meeting.

Agendas

- 1 Standardization Issues
 - 1.1 Character set
 - 1.2 Character set encoding
 - 1.3 Fonts
 - 1.4 Keyboard
 - 1.5 Collation
 - 1.6 Locale
 - 1.7 Interface Terminology Translation
- 2 Policy Issues
 - 2.1 Clear cut government's policy and views on Open Source Software.
 - 2.2 Adoption of Nepali Unicode nationwide.
 - 2.3 Local Language Computing topics in the school curriculum.
 - 2.4 Promotion of content creation in the local language and the relevant software tools.

Note: Please find a more elaborative note on the agendas above in a later section of this document.

Who would be possibly involved?

1. Government Bodies looking after Information Technology like High Level Commission for Information Technology(HLCIT), National Languages in Information Technology (NLIT) Steering Committee, National Information Technology Center (NITC), Ministry of General Administration (MOGA) etc.
2. Other co-ordinating organizations like Computer Association of Nepal (CAN), Information Technology Professional Forum (ITPF), Forum for Information Technology (FIT), Nepal etc.
3. Madan Puraskar Pustakalaya (MPP) and its collaborating organizations like E-network Research and Development (ENRD), Tribhuvan University(TU), Kathmandu University (KU).

Major goals and objectives of the meeting:

- 1 To draw a general view and commitments from the government's side on the above agendas.
- 2 To collect the opinion of the respective stakeholders on the above agendas,
- 3 To formulate common resolutions on the above agendas.

Duration of the meeting

The meeting would be of half day followed by a dinner reception.

Date of the meeting

September 23, 2007

Venue

Yalamaya Kendra, Lalitpur, PatanDhoka.

Time

1 P.M onwards

Dinner

6 P.M – 8 P.M

Elaborative note on the agendas

Standardization Issues

1. Character set

Has there been any standardization measures for the character set of Nepali or that we are alright following the Devanagari general code chart that contains the character set for Devanagari to which Nepali Characters is a smaller subset? In doing so, are we making certain compromises? Are there certain Nepali Characters that do not necessarily fall under the bigger Devanagari Character set?

2. Character set encoding

How long will it take for us to upgrade ourselves to Unicode encoding from the traditional ASCII-based encoding as long as creating documents with one of these encodings is concerned? Why are people giving continuity to using ASCII-based fonts for preparing their documents? Is it the lack of awareness and training? If we are to go for e-governance, there is no alternative other than adopting Nepali Unicode nationwide. But has the government doing the necessary homework for making the right policies and providing the required training as well as conducting awareness campaigns?

3. Fonts

Should there be standards on fonts set? If so, what would be the criteria? By fonts and the other discussions that we will be leading across the document, it is understood the Unicode based fonts for Nepali by default. May be the font developers would have a better say over here in terms of particular glyph sets for Nepali.

4. Keyboards

Nepali Typing has been drastically easy with the development of the Nepali Keyboard Drivers by Madan Puraskar Pustakalaya. However, the developed drivers are not in themselves logical. This is because adequate research and consultations with standardization bodies and possible stakeholders were not done while developing these keyboards. Obviously, at the time of developing these keyboard layouts/drivers, there was not yet any standardization body in existence. Now with the rise in the number of interested people wanting to learn Unicode typing and the availability of more than one keyboard layouts/drivers, the standardization issue of keyboards is really a burning issue. It is also an urgent one especially amidst the deployment of localized software in the market.

After all, what should be the criteria for a standard keyboard layout/driver for Nepali? Can the existing

ones be considered candidates for the standard or a totally new one has to be developed?

5. Collation Sequence

What about collation sequence or the sorting sequence of characters for Nepali? So far we have two versions in practice - the first one that has the ending character in “ॢ” and the other in “ॣ”. While the traditional practices of teaching in primary schools have been adopting the latter, the advent of the Unicode has opted for the former. Are we compromising things while trying to adopt Unicode? What should be a logical decision for collation sequence? Are we okay with the two different methods depending upon contexts or that we should go for one of them?

6. Locale

This has been standardized and already submitted to the Common Locale Data Repository (CLDR).

7. Interface Terminology Translation

This has been standardized but requires some revision and particularly an increment in the size. The current one is clearly not adequate when it comes to translating larger software applications, for instance, NepaLinux.

On the Policy side

1. Government's policy and views on Free and Open Source Software (FOSS)

Although, lately the National Information Technology Center (NITC), the helping body of HLCIT, has been studying the usage and assessing the demand of Free and Open Source Software in educational institutions, there has not been any clear cut policy on Free and Open Source Software formulated from the side of the Government. With the recent hype that FOSS movement has taken in Nepal and its possible benefits in terms of costs and localized solutions that it provides, it is high time that the government brings out a concrete view in terms of their deployment and promotion.

2. Adoption of Unicode nationwide

Successful implementation of e-governance in the country is principally impossible without the adoption of Unicode nationwide. But for this, the Government has to do plenty of homework for providing the necessary trainings on Nepali Unicode typing and conducting awareness campaigns on the benefits of the Nepali Unicode.

3. Local Language Computing topics in the school curriculum

If we are to promote local language computing and software localization as a potential tool for bridging the digital existing divide caused by the language barrier “English”, it will be highly important that preliminary concepts on these topics be included in the school curriculum itself. Correspondingly, the school computer labs should be furnished with the localized software. This provides a major thrust for going for localized applications for a wider coverage of Information Technology, especially in the context of countries like Nepal where the English proficient mass is relatively small.

4. Promotion of local language content creation and the relevant software tools

All the attempts on software localization and local language computing would be incomplete without adequate amount of digital information generated in the local language. Hence, the Government should come up with some strategic policies to promote local language content creation and correspondingly encourage the usage of the relevant software tools.

List of the names of the participants of the meeting

1. Dr. Madan Pariyaar, Member Secretary, High Level Commission for Information Technology (HLCIT)
2. Mr. Ram Sharan Pandey, Chairman, National Languages in Information Technology, Steering Committee
3. Mr. Kedar Sharma, Member Secretary, National Languages in Information Technology, Steering Committee
4. Mr. Baladev Prasad Joshi, Under Secretary, Ministry of General Administration, Nepal Government.
5. Mr. Bijay Kumar Roy, Assistant Manager, Nepal Telecommunication Authority
6. Mr. Rajesh Shakya, Executive Member, Information Technology Professional Forum.
7. Prof. Dr. Yogendra Yadava, Head of Central Department of Linguistics, Tribhuvan University.
8. Associate Prof. Dr. Bholu Thapa, Dean of the School of Engineering, Kathmandu University.
9. Associate Prof. Mr. Anup Banskota, Department of Computer Science and Engineering, Kathmandu University.
10. Mr. Rajendra Poudel, Member Secretary, E-network Research and Development (ENRD).
11. Mr. Ajit Acharya, E-network Research and Development (ENRD)
12. Mr. Subir B. Pradhanang, President, FOSS-Nepal.
13. Mr. Amar Gurung, Director, Madan Puraskar Pustakalaya.

14. Mr. Bal Krishna Bal, Project Manager, Madan Puraskar Pustakalaya.
15. Ms. Srishtee Gurung, Project Manager, Madan Puraskar Pustakalaya.
16. Mr. Laxmi Khatiwada, Linguist, Madan Puraskar Pustakalaya.
17. Mr. Sharad Bhusal, Outreach Officer, Madan Puraskar Pustakalaya.

Some common resolutions and recommendations passed from the meeting

1. There was a common agreement among the participants that a standard making body for IT and especially concerning the software did not exist in Nepal at the current date. Even the apex IT bodies like the High Level Commission for Information Technology (HLCIT), National Languages in Information Technology (NLIT) and the National Information Technology Center (NITC) do not seem to have the right authority for working on standards. Hence it was generally agreed to identify an appropriate and legally recognized Standards making body. Government bodies like NLIT would help this body in providing the knowledge and technical expertise for promulgating a particular standard.
2. All the participants opined that there was no alternative to going for Nepali Unicode as the Character encoding. However, there needs to be some homework done from the Government's side as per the modality of the awareness campaigns on Nepali Unicode. As per the strategies to increase the wide adoption of Nepali Unicode, it was suggested that the technology be made compulsory in Ministries, develop more and more Nepali Unicode based software and the media, government and the universities be set as the target users.
3. On account of keyboard standardization, it was generally agreed that a national level competition be announced by NLIT for keyboard driver developers. The contestant software would be subjected to rigorous testing and feedback generation with the involvement of developers, user communities and research institutions like the Universities. The relatively more scientific, logical and easy to use keyboard driver would then be adopted as a standard keyboard layout/driver(s). Refinements as per required would be suggested to the nominated keyboard driver software.
4. As far as the Interface Terminology Translation is concerned, the 2400 terminologies sized computer glossary initially developed and standardized by NLIT was felt to be insufficient by the majority of the participants and a general recommendation for discussion over the glossary with possible increment was suggested to be done in the near future.
5. On account of including localization topics in the school curriculum and introducing localized solutions in the computer labs of schools, everybody had a common opinion. On this, the majority of the participants' comments were focused on the need to revise the existing school curriculum. For this, the concerned authorities like the Ministry of Education and sports as well as the Curriculum Development Center would need to be sent a concern note from bodies like NLIT.
6. All of the participants agreed over the fact that it was basically the lack of awareness that the

amount of digital content available in Nepali on the web is nominal. For this, content creation tools like the Wikipedia should be promoted in the general public. Besides, content creation should itself be encouraged at the same time, however, taking care that the decency of the content is also maintained.

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