Unicode adoption in Nepal – Stories of change

PAN Localization Project, Nepal
Country Component

Outline

- Pre-Unicode Era, Pretending to Write in Nepali
- Advent of Nepali Unicode
- Adoption of Nepali Unicode in government websites, blogs and online news
- Nepali Unicode and the Prevailing issues, Limitations
- Conclusions

Pre-Unicode Era: Pretending to write in Nepali

- Purely managed by some hack fonts
- Text encoding (codes for each character of the text based on ASCII encoding).
- For example, the Nepali character "ब" as per the Preeti font is mapped to the letter "a" in the keyboard and correspondingly assigned the latter's code for internal representation.
- Worse, no uniform character set mappings with character codes

Pre-Unicode Era: Pretending to write in Nepali…

Disadvantages:

- Use of the computer confined to simply typing
- Lot of compromises in terms of typing
- Source and Target computers both need to have the same font installed in their machines
- No consistent and uniform keyboard layouts (Keyboard layouts differed according to fonts and what developers felt right in terms of character key mappings)
- -Typing difficult and requiring rigorous trainings
- Typed text lacks processing benefits (Sort, Find and Replace, Arithmetic calculations etc. not possible)
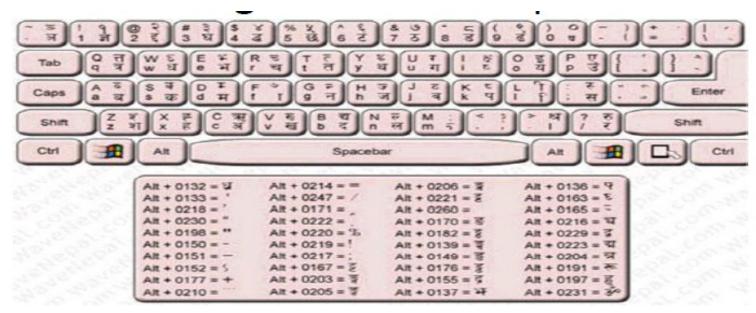
Pre-Unicode era
Pretending to write in Nepali...

Fig.1. Keyboard layout for Preeti font

In Preeti	In Times New Roman	Character codes – ASCII(Decimal)
बकमन	asdg	97115100103
१२	!@	3364

Advent of Nepali Unicode…

- Allocation of a separate block for the Devanagari script in the Unicode chart
- Font Standardization Project
- Development of Unicode compliant fonts and keyboard layouts (Nepali Unicode Romanized and Nepali Unicode Traditional)
- Changes
  - No more technical hassles in document transfer and exchange
  - Text processing began to be possible for Nepali
  - Choice of fonts available

Advent of Nepali Unicode…

Has opened up myriads of opportunities

– Blogs and social media (the medium being Nepali)

- Increased number of government websites in Nepali

– Localization and local language computing (Revolution in Nepali Language Computing -NepaLinux, Spell checkers, Nepali Lexicon, Grammar Analyzer, Machine Translation System, Dictionaries, Thesauri, Text-to-Speech, Font developments, Mobile applications, Internationalized Domain Names, E-governance applications etc.)

Adoption of Unicode in government websites, blogs, online news

http://www.mysansar.com/

http://nagariknews.com/

http://moga.gov.np/main/index.php?np

http://cpo.gov.np/

http://www.nta.gov.np/np/

http://www.election.gov.np/NP/

Nepali Unicode and the Prevailing issues, Limitations…

- The World Wide Web is fast adopting Nepali Unicode
- But there is very low adoption among publishers
  - Formatting problems
  - Legacy issues
  - Unicode not supported in DTP software
  - Possible solutions (Use of converters)

Conclusion

- Have come a long way from where it started

- Still much to achieve in terms of adoption

- Need to go for migration tools like Font converters to ultimately switch hundred percent to Unicode

- Although Unicode is officially adopted by the Government in its policy, trainings and awareness campaigns still a must nation wide

- Continuous discourse on the current limitations of Nepali Unicode necessary