Writing an Unwritten Language

David J. Weber
Summer Institute of Linguistics

The National Museum of Language
July 12, 2008
Introduction

• Why this is an important topic?
  Writing systems have consequences for language communities and their speakers.
  Advance the goal of “Education for All”
  Literacy projects may succeed or fail based on the writing system
  A writing system is often highly controversial
• Developing a writing system is not simply representing the sounds of a language.

• Most unwritten languages are in contact with a language of wider communication ...or soon will be! Many speakers of a unwritten language receive education in a LWC.
**Design considerations**

- Various design considerations (pressures):
  - linguistic
  - tradition/history
  - sociolinguistic
  - political, ideological and religious
  - psycholinguistic and sensory motor
  - technological
  - educational, ...and others

The goal: an *optimal* writing system, one that takes into account a wide range of diverse factors.
Linguistic factors

- Represent relevant aspects of the language, especially its sounds. It is important to understand what sounds can distinguish words. Compare:
  - English *sin* [n] versus and *sing* [ŋ]
  - Spanish *pan* [n] or [ŋ] 'bread'.

So we represent the difference in English (*n* vs. *ng*) but not in Spanish (for both sounds, *n*).

- Establish sound-symbol correspondences according to system and script.

- Address various complicating factors
Complicating linguistic factors:

- Levels and types of representation: phonetic ([mp] for /np/), phonemic, morphemic, grammatical, semantic ($10.00)
- Word division (forever more, for evermore)
- Constructions (didn't, wherever)
- Suprasegmentals (tone, duration, stress)

  rikaman  'he sees me'

  rika:man  'I might see it'
Tradition (historical context)

• What sorts of writing systems are known (perhaps used in a LWC)?
  logosyllabary (Chinese)
  syllabary (Cree)
  abjad (Arabic)
  alphabet (Spanish, Finnish)
  abugida (Brahmi)
  featural system (Korean)
Tradition cont'd

• Are there preferred scripts?
• Are there constraints on letter shapes (glyphs)?
• Are there constraints on sound-symbol correspondences? (h in English vs. Spanish contexts)
• Does a sub-optimal writing systems have loyal supporters who oppose change? (Norway: Bokmal vs. Nynorsk)
Sociolinguistic factors

- Variation: Over how much linguistic diversity can a single writing system be useful?
- Prestige may be a crucial factor.
- The attitudes and preferences of potential users, e.g., some symbols may have emotive value, e.g., $k$ and $w$ in the Andes (wisky, but Katy, Walter)
- How does the language relate to one or more languages of wider communication?
- Language loyalty
Political factors

- The interests of the state vs. those of minorities
- A writing system may be a gate keeping device, a tool of the educated elite (royalty, priests).
- Writing systems are strong symbols of identity. Stalin imposed the Cyrillic alphabet in the USSR.
  With the collapse of the FSU, many states (Azerbaijan, Kazakhstan, ...) are replacing Cyrillic with other alphabets or systems.
- There may be an agenda of “transition” to a language of wider communication (additive or subtractive)
Ideological factors

- Unification: achieve social unity based on historical roots, common language and culture
- Liberation: unify to throw off the shackles of colonial oppression
- Linguistic uniformity leads to social unity
- Diversity reflects disintegration resulting from invasive influences of colonial languages, hence impurities to be removed. (For Quechua, disallow b, d, g, j, z as Spanish; normalize word order to SOV.)
- Raise prestige by supporting standardization (!!!)
Religious factors

- A writing system may be strongly tied to a particular religion
  - the Arabic abjad with Islam
  - “Protestant” and “Catholic” alphabets for some Quechua languages
  - Serbo-Croatian: roman alphabet used by the Western Church,
    Cyrillic alphabet used by the Orthodox Church

The religion dominant in the area of the language (for which a writing system is designed) may dictate both the type of system and the script. On the other hand, the language group may wish to distance itself from this religion by using neither.
Psycholinguistic and sensory motor factors

- Efficiency versus redundancy: Why redundancy is good.
- Eye movement and the importance of boundaries
- Visual discrimination: Could we write with bar codes? symmetries and dyslexia (b, p, d, q) serifs may help (b, p, d, q)
Technological factors

• What level of technology is available to authors and publishers? If writing requires a computer and few people have one, then the writing system serves the elite rather than the whole community. For Lambayeque Quechua G. Taylor has recommended using ĉh for retroflexed ch [ĉ].
Educational factors

• Are there sufficient educational resources to put the writing system into use? How costly is it to make fluent readers and writers?

• Sustainability: Can reading and writing be passed from one generation to another?

• Does the writing system fit the educational expectations of teachers, students, and parents? (Puno: parents felt their children were cheated when not taught $e$ and $o$ for Quechua.)
Economic

For a language/language family
• if writing systems are too specific, publication costs may be high (e.g., multiple sets of instructional material).

• if writing systems are too general—perhaps fitting no variant closely—learning to read and write may require more years in school, so greater cost to the state and to parents.
Esthetic factors

• Is written text attractive? Sometimes the excessive use of diacritics can make the text look cluttered. (“like an ant crawled across the page”)

• Oriya (India) incorporated what was a decorative arc as a prominent and required part of most letters.

• Serifed vs. san serif
Other factors?

• Can YOU think of other factors?
Conclusion

• In designing a writing system for a language, the language community must be involved! Many factors must be taken into account.

• Linguists often discount the importance of many of the issues mentioned above. A writing system based only on linguistic considerations will likely fail.

• Designing a writing system for a language is challenging because it is a multidisciplinary task and because doing it well requires knowing its speakers and engaging the language community.