Thoughts on Implementing IDNs

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What does the non-English Internet look like?
Keyboard (English)
Keyboard (Arabic)
Text messages (English)

Can I have two tickets for...
Text messages (Chinese)
Instant Message (English)

movsoftware@swissjabber.org
Chat with movsoftware@swissjabber.org
(movsoftware@swissjabber.org)
--- New conversation ---
movsoftware says: Hi are you around?
spendleton says: yes I am 😊
movsoftware says: Are you going to be in the office today?
spendleton says: Yes, around 3:00PM
movsoftware says: OK, I will see you then!
Instant Message (Amharic/Ethiopian)

Ethiopian: የጎም ሰክ
Bekelem: ከስስክሮ ከነጎስ ደካማማት ከስስክሮ
አንድን ሰገድ ከጎም የስስክሮ
Ethiopian: ከስስክሮ ግወ'&& ከስስክሮ የጎም ይህ ይህ
Bekelem: ከስስክሮ ግወ'&& ከስስክሮ የጎም ይህ ይህ
Ethiopian: ከስስክሮ ግወ'&& ከስስክሮ የጎም ይህ ይህ

Send | Cancel | Notify AOL

Reminder: AOL will never ask you for your password or billing information.
How Do You Know Who Is Writing To You?

- Internet applications must handle messages in multiple languages
Can You Write To Someone In Another Language?

- Applications must allow users to enter text in
Applications must handle content in multiple languages.
Common Issues

- Consult with government for Geo-political Impact of new top level domain
  - Politics and policy will intersect with IDNs
- Active local Language Community
- Low understanding of concepts such as “confusingly similar”
- Low understanding of differences between DNS, font rendering, application specific issues
Issues (cont.)

- Interest in adhering to International Standards
- Government is a major factor in pushing technology development
- Strong anathema to issues such as Pornography, Curse Words
- Regulation varies across world regions
What might change...

- Differentiation between gTLDs and ccTLDs blurring
- Implementation issues are often the same for gTLDs and ccTLDs
- Mixed opinions regarding whether existing gTLD or ccTLD operator should be operator for IDN TLDs
Unique TLD issues with Whois

- No longer just one language input or output
- How do you differentiate between variants and represent packages across languages
- Search of Whois records and contact information records (even from within a registry or a registrar) is now dramatically more difficult
gTLD IDN Whois issues

- Billing and invoicing to a registrar with Whois information now has to be figured out:
  - Punycode representation (“xn—dd3234.info” is meaningless but accurate
  - IDN representation on invoices invites registrars and others in the value chain to get knowledgeable on multiple languages
  - Audit trails just got a lot harder
Some Security Considerations

- Registrars need to ensure appropriate mechanisms to allow IDN scripts in their transfer scripts.
- Automated email transfers – might only show “xn--” rather than convenient local script representation.
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