Bridging the Online Language Barriers with Machine Translation at the United Nations

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W3C workshop: New Horizons for the Multilingual Web Madrid, 7 May 2014
About FAO

- International organization with >190 member countries
- Global mandate on agriculture, food standards, animal diseases, genetic resources, forestry, fisheries.
- 5 regional offices, 11 sub-regional offices, 82 country offices.
- Languages: English, French, Spanish, Arabic, Chinese, Russian.

renewed website FAO.org launched in June 2013
- website visits: 5.5 million per month
- downloads of documents and pubs: 7.3 million per month
Regional Conference for Latin America and the Caribbean, 6 – 9 May 2014 – Santiago, Chile

FAO and National Geographic announce collaboration exploring future of food
Partnership kicks off with live-streamed May 2 event in Washington, D.C., and May cover story in National Geographic Magazine

In Action
Accounting the “culture” in agriculture
In addition to boosting income, farmers who maintain GIATHS can leverage increased recognition to safeguard their way of life.

Rabies: Serves as a Model for Control of Rabies
Since 2011, FAO has been supporting the Government of Indonesia to rapidly control the deadly rabies virus on island of Bali through an innovative strategy centered on comprehensive mass dog vaccination.

Fight Hunger
Water – the most basic resource but also the most essential
How much water do we use for...?

Food Price Index

Calendar of meetings

International Year of Family Farming
Family farmers around the world, key facts and figures
Family farming is inextricably linked to national and global food security. Both in developing and developed countries, family farming is the predominant form of agriculture in the food production sector.

New EU programme to strengthen land governance in ten African countries
Voluntary guidelines applied for the first time – major success in EU-FAO partnership.

Committee on World Food Security
Background

- Most information originated in English – website reflects that.
- particularly low language coverage in AR, ZH, RU.
- proposal for using gist translation for those languages accepted.
- DIY SMT: encouraging, but ..... 
- support from countries: “management was urged to continue to quality test automated translations” (June 2013).
Implementation approach

- define scope: provide gist translation to help users understanding the content and provide their feedback regarding the quality of MT and the need for human translation.
- identify stakeholders: users. (but also government representatives, senior management, translation service, IT service, web service).
- constituting a team (translation, IT, web)
- keep informed: government representatives, senior management.
Process

Internal team to agree on:
- definition of requirements; methodology for evaluation; relative weight of evaluation criteria; minimum score for each requirement.

Senior management/countries to agree on:
- policies (language policies) ... and budget.

ALL to agree on:
- usability, metrics, cost-benefits
Selection

- Expression of Interest.
- RFP: 10 companies invited, 3 replied, 2 qualified.
- Evaluation of IT and translation quality aspects.
- 3 translators used by language; 800 sentences.
- Results exactly the same as per BLEU analysis

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<thead>
<tr>
<th></th>
<th>EN-AR</th>
<th>EN-RU</th>
<th>EN-ZH</th>
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<tr>
<td>Solution-1</td>
<td>23.16</td>
<td>29.67</td>
<td>11.51</td>
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<tr>
<td>Solution-2</td>
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<td>Solution-3</td>
<td>20.37</td>
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Q: How does it work?

A: http://labs.fao.org/
Food and Agriculture Organization of the United Nations

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Why soil matters?

It is difficult to rate the importance of the different soil functions, since all are vital to our well-being, to some extent. However, the function of supporting food production and agriculture worldwide is fundamental for the preservation and advancement of human life on this planet.
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Feedback mechanism

Three ways:
- at sentence level in the browser, to retrofit engine.
- at page level in the browser, to identify needs for human translation.
- on the overall process (survey), to identify general feedback on usability
Lessons learned

- born to be multilingual (for all pages).
- evaluation of Arabic SMT have additional complexity (technical, political, ..)
- involvement of translation services is key.
- need for best practices available for decision-makers.
- cost-benefit analysis to be easily explained.
- planning. It takes longer than expected.
- still learning.
Next steps

- May: finalize testing phase.
  (keep informed.)
- June: finalize policies and metrics – when the widget can be used and for how long? Demonstrate technology
  (keep informed...)
- July: deploy in FAO.org
  (and ... keep informed!)
Thank you!

For additional information,

please contact us at web@fao.org