Challenges for language technologies in Ayapaneco

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REFERENCES


CHALLENGES FOR LANGUAGE TECHNOLOGIES IN AYAPANECO

Critical challenges are typically present in many critically endangered and low-resource languages, like Ayapaneco.

- **Critically endangered**
  - Present challenges to implementing language technologies in Ayapaneco
  - Illustrate how almost 10% of the world’s languages could face these same challenges

- **Low-resourced**
  - Only 0.4% of the world’s languages can be categorized in six major groups.

- **Financial resources**: no state funding for language technologies
- **Human resources**: only 1-2 manual annotators
- **Capacity**: scarce computer access; written system still in progress
- **Infrastructure**: unreliable and expensive access to internet
- **Linguistic**: limited, unreliable and expensive language documentation and description; high proportion of unstructured variation

**HRL**
- English
- German
- French
- Spanish

**MRL**
- Hebrew
- Hindi
- Czech

**LRL**
- Ayapaneco
- Ixcateco
- Kaurna

**Table 1**: Resource distribution of world languages

<table>
<thead>
<tr>
<th>Resource Distribution</th>
<th>HRL</th>
<th>MRL</th>
<th>LRL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.4%</td>
<td>1%</td>
<td>98.6%</td>
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</tbody>
</table>

**Human resources**
- Approximately 11 elder speakers representing only 0.3% of Ayapa’s total population
- Not transmitted for over 60 years
- Limited use of the language
- No written tradition, practical orthography in progress
- Under-documented & under-studied
- Recent language revitalization efforts

**Ayapaneco**
- Ayapa Zoque, Ayapaneco or nume oote (autonym) belongs to the Mixe-Zoque language family and is spoken in Ayapa, a village of 5,500 inhabitants in the municipality of Jalpa de Méndez, Tabasco, Mexico [3].

**Future Perspectives**
- The implementation of language technologies could help us maximize the limited time we have left to engage with critically endangered languages. Given the multiple and complex challenges we face, we must explore from a theoretical and methodological point of view new multidisciplinary approaches. We must also create synergies among varied actors (academia, governments, NGOs, communities and civil society) to better address these challenges and support capacity building in the long term. Simultaneously, and more fundamentally, we must address the root causes of these challenges such as inequality, poverty and discrimination as critically endangered and low-resource languages are spoken by minority and marginalized communities.

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