Teanga

A modular LD Platform for NLP.
UNLP PhD, April 25th, 2017.

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The Problems

• Bad user-interfaces
• Bad user-experience
• Programming language related
• Bulky frameworks (Setup and run)
• Experts oriented (Similar Tools)
• Non-modular (Guidelines first)
• Unreasonable input-output
• Interoperability (Pipeline)
User-interface: EnRG / Smartie / Mixed Emotions

Using our expertise and previous projects experience in developing the UI

Entity Relatedness Graph

Please provide Wikipedia link to get related entities.

Wikipedia link...
User-experience

Following “User Experience Honeycomb” Technique to build a:

- Useful: fulfill a need
- Desirable: Image, identity, brand, design elements
- Usable: easy to use
- Findable: navigable and locatable onsite
- Accessible
- Credible: trust and believe
- Valuable

System

Image Courtesy: Peter Morville
User-experience: Usable

**Step 1**
+ Add a Task

**Step 2**
Task type:
- Predefined
- Custom

**Step 3**
Select task
- Extracting Topics/Terms from newspaper archives.
- Extract Suggestions from multilingual customer
- Extract Emotions on a Brand or a Company from

**Step 4**
Select languages
- German
- Spanish
User-experience: Findable

Finding ways to show results in an easy findable way

```json
{
    @context: "http://140.203.155.26:8005/apicontexts/Results.jsonld",
    @id: "_:Results_1493078012.1268828",
    @type: "results",
    analysis: [
        "hashTagClassification"
    ]
}
```
Any programming language

We’re building a system that can add any service with an API no matter what the programming language was.
Manageable Framework

Easy to download, install, and run.
Experts/Non-experts

The user shouldn’t need to be an NLP expert to use the Platform
Modularity

We’re trying to build a system that accepts any service to be added without specifying guidelines for the input/output by using an alignment service.
Unified Output

The system should output results in **JSON LD** files.
Interoperability

Studying NLP Architecture in:

• General Architecture for Text Engineering (GATE)
• Unstructured Information Management Architecture (UIMA)
• A Conceptual Framework of Online Natural Language Processing Pipeline Application.
• NLP Interchange Format (NIF)
• Language Grid.
• The Language Application Grid, LAPPSS Grid and its Galaxy front-end.
### Interoperability

<table>
<thead>
<tr>
<th>Service</th>
<th>IN</th>
<th>OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1</strong> Linked Data Profiling</td>
<td><strong>LOD Docs</strong></td>
<td><strong>Selected LD Datasets</strong></td>
</tr>
<tr>
<td><strong>2</strong> Machine Translation</td>
<td><strong>DE, ES Docs</strong></td>
<td><strong>JSON LD EN Docs</strong></td>
</tr>
<tr>
<td><strong>3</strong> Suggestion Mining</td>
<td><strong>En Docs</strong></td>
<td><strong>JSON LD Docs</strong></td>
</tr>
<tr>
<td><strong>4</strong> Entity Linking</td>
<td><strong>SLD</strong> + <strong>JSON LD</strong></td>
<td><strong>JSON LD Docs</strong></td>
</tr>
<tr>
<td><strong>5</strong> Data Visualisation</td>
<td><strong>JSON LD</strong> + <strong>JSON LD</strong></td>
<td><strong>XLS, D3JS</strong></td>
</tr>
</tbody>
</table>