

**HOW CAN I TRANSFORM AN ONLINE  
SERVICE TO TRULY MULTILINGUAL?**

*The Best Practices were defined in the context of [www.organic-lingua.eu](http://www.organic-lingua.eu) project based on the experience of developing a truly multilingual Pan-European online service, the [www.organic-edunet.eu](http://www.organic-edunet.eu) portal*

## 10 ways to become truly multilingual

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1. Rely on REST style 
2. Localize your service 
3. Rely on multilingual KOSs 
4. Publish KOSs as linked data 
5. Be domain specific 
6. Select the best MT service 
7. Enable multilingual search 
8. Wrap language services 
9. Keep analytics 
10. Think of users 



## *Rely on REST style*

*Follow a service oriented  
approach in the  
architecture of your  
online service*

## Rely on REST style



- ✓ Follow a SOA approach using REST
- ✓ Integrate easily new language technologies
- ✓ Integrate easily KOSs to annotate your resources and allow navigation
- ✓ Cache information if performance matters

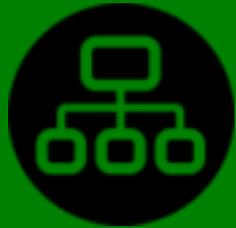


## *Localize your front end service*

*Follow the concepts of the International web design (i18n) to localize your front end service*

## Localize your service

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- ✓ Internationalization
  - ✓ Do not use graphics with text
  - ✓ Localize all components of the portal e.g. generic content, feedback forms
  - ✓ Use MT in interface translation as a supporting tool



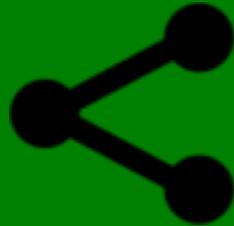
*Rely on  
multilingual KOSs*

*Use and Manage  
multilingual KOSs  
centrally*

Rely on multilingual KOSs



- ✓ Use multilingual KOSs
- ✓ Keep them centrally
- ✓ Manage them with friendly open source tool that can be used by domain experts
- ✓ Allow collaborative KOSs evolution
- ✓ Rely only on KOS's id and not on labels in your local db

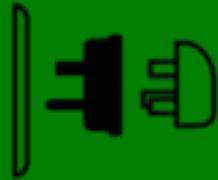


*Publish KOSs as  
linked data*

*Published all the KOSs  
used in your online  
service as linked data*

Publish KOSs as linked data

- 
- ✓ KOSs linking
  - ✓ Link to external sources
  - ✓ Use terms from external KOSs in search
  - ✓ Use KOSs for domain adaptation



## *Be domain specific*

*The language services  
should be domain  
specific especially if your  
online service targets a  
particular sector*

## Be domain specific



- ✓ Collect domain language resources
- ✓ Train language services by using domain specific resources
- ✓ Use domain specific widely accepted KOSs



## *Select the best MT*

*Select the best MT for  
the domain of your  
service*

## Select the best MT

- 
- ✓ Compare the different MT services
  - ✓ Check open and free solutions
  - ✓ Check domain adaptation capabilities
  - ✓ Perform in vitro evaluation
  - ✓ Ask users to help you in evaluation
  - ✓ Add a simple rating for MT in your service



## *Multilingual search*

*Allow users to search  
using their native  
language.*

## Multilingual search

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- ✓ Keep in mind that users know the terminology in their native language
- ✓ Translate queries
- ✓ Enrich your indexes with domain specific KOSs
- ✓ Put manual enrichment first



## *Wrap language services*

*Add a component in your architecture that will wrap the language services*

## Wrap language services



- ✓ Different language services for each language
- ✓ Do not integrate directly the language services in your portal
- ✓ Create a uniform REST interface for all the language services
- ✓ Share the same wrapping component among



## *Keep analytics*

*Analytics can help you in understanding how the language technologies are used in your online service*

### Keep analytics



- ✓ Track the origin of your visitors
- ✓ Create a linguistic profile of the users
- ✓ Use an analytics component in your architecture
- ✓ Add a simple rating for MT in your analytic services



## *Think of users*

*Always think of users  
and their linguistic  
profile*

## Think of users



- ✓ Study their geographical distribution
- ✓ Inform users about automatic translation
- ✓ Allow users to disable the automatic translation in search and browsing
- ✓ Enable feedback about the automatic translation
- ✓ Allow users to submit improved translations



**ORGANIC.LINGUA  
ONLINE WORKSHOP  
27/3/2014, 15:00 CET**

[http://wiki.organic-lingua.eu/organic\\_lingua\\_online\\_workshop](http://wiki.organic-lingua.eu/organic_lingua_online_workshop)

**Organic.Lingua project**

- ✓ ICT – PSP
- ✓ Just finished
- ✓ Check our project site  
[www.organic-lingua.eu](http://www.organic-lingua.eu)
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