

# Design study for a collaborative Translation Service

**a significant path to multilingualism in academic contexts**

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Bonn, 5th September 2023

**OPERAS  
PLUS**



This project has received funding under Grant Agreement No 101079608. Views and opinions expressed are however those of the author(s) only. The European Commission is not responsible for any use that may be made of the information it contains.



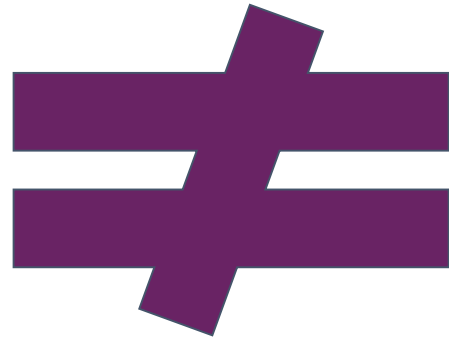
# Mind the gap!

Multilingualism is an  
asset not a restraint

there are limitations on  
non-native language  
proficiency



*Lingua franca  
Unica*



*Lingua*



# Lost in translation!

## Problems

- funding for professional translation of scientific outputs.
- difficulties for writing using non-native languages.
- inefficiency of automatic translation platforms for correctly address subtleties of inquiring speech.
- specificities of language of each scientific field require a certain level of expertise.



# Explorative solution!

Started with:

Balula, A., & Leão, D. (2021). Multilingualism within Scholarly Communication in SSH. A literature review. *JLIS.It*, 12(2), 88–98

Delfim Leão, Ana Balula; Carlos Costa; Cornelia Plag; Lorena Caliman; Maria João Padez; Mickael Silva; Susana Jarmelo: “**OPERAS-P Deliverable D6.4:** Report on the innovative models of bibliodiversity in scholarly publications”. DOI: <https://doi.org/10.5281/zenodo.4817508>;

## Collaboration for bridging the gap:

Scholars

translators

readers

publishers



# Write in native language and outreach community

**identify**

**translate**

**review**

**share/ publish**

**discover (new) readable  
outputs**



# OPPORTUNITY



START  
GO!



CODE FAST!  
PYTHON / VUEJS

APRIL 2020

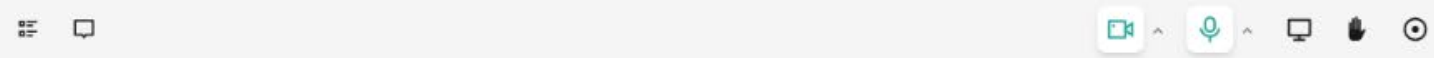
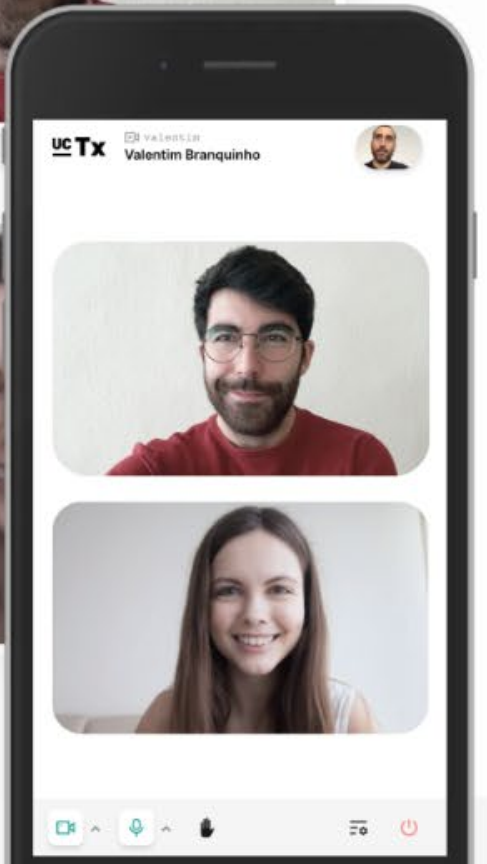
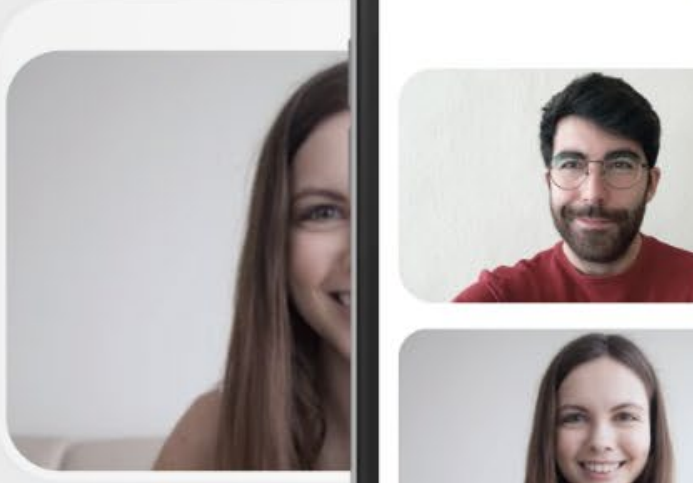
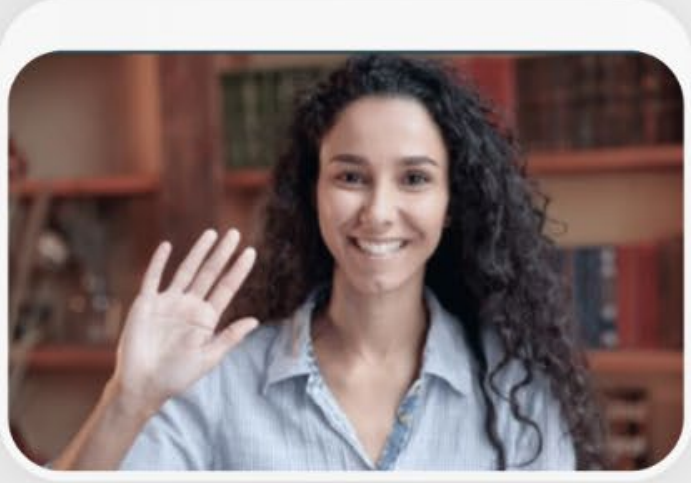
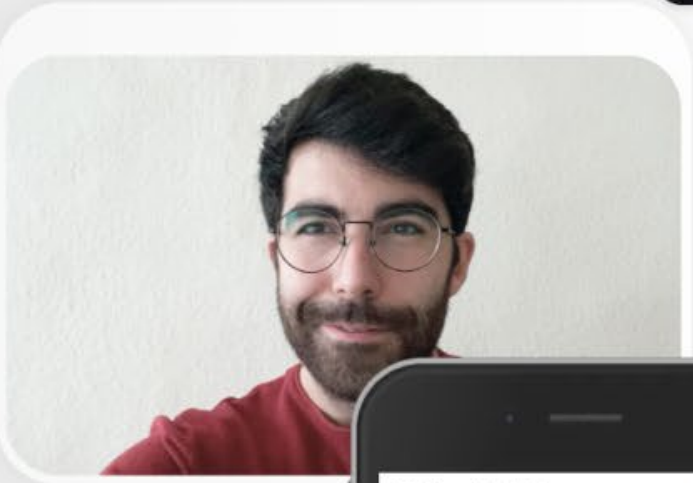
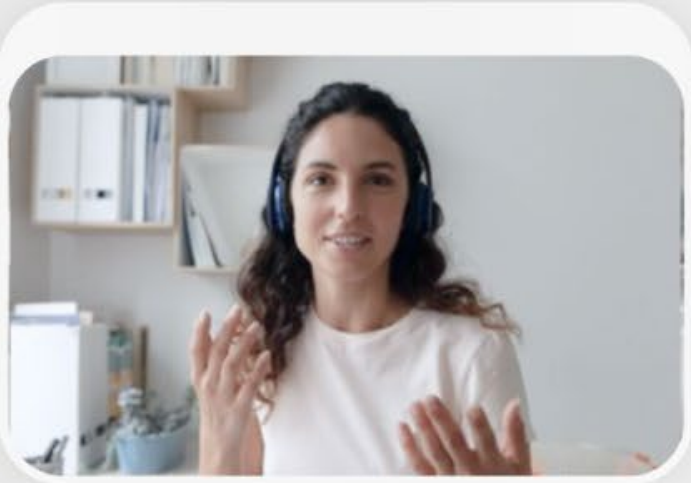
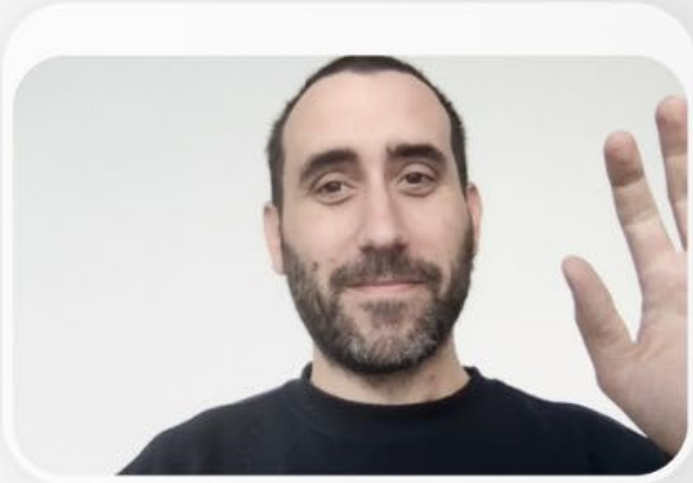
# RESPONSE

PREPARE THE FUTURE



SEPTEMBER 2020









Valentim Branquinho  
Canal da sala

08/09/2021 15:05

Olá  
08/09/2021 15:06

Delfim Leão  
<https://www.deepl.com/translator>  
13/09/2021 9:39

Delfim Leão  
<https://docs.google.com/document/d/1bdpk1MCPATuiEiz19-4LSuOxnjFTKtCUPLLfHtNxV74/edit#>  
13/09/2021 10:16

Hugo Branquinho  
Message for file sharing.  
13/09/2021 11:08

```
CID 5xuuwzxtj8ibsegb8jg3e7a113hpdnw
canReRecordings() {
  // Only want meetings for now
  return Boolean(
    [process.env.VUE_APP_KEY === 'teacher' || process.env.VUE_APP_KEY === 'meetings'] &&
    this.loggedIn &&
    this.meeting &&
    (this.meeting.item_type === 'user' || this.meeting.item_type === 'class_session') &&
    this.attendee &&
    this.attendee.visibility === 'can_record'
  );
}
canRecord() {
  return Boolean(this.withClass && this.canReRecordings);
}
```

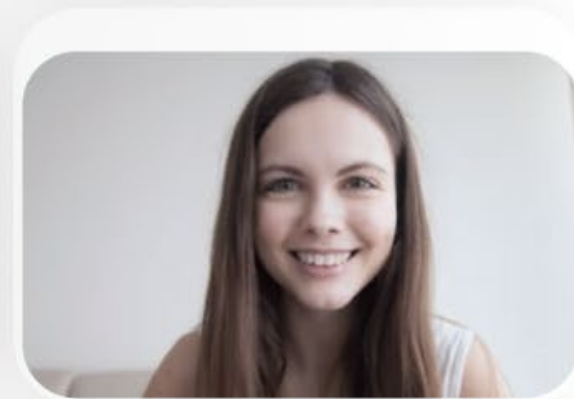
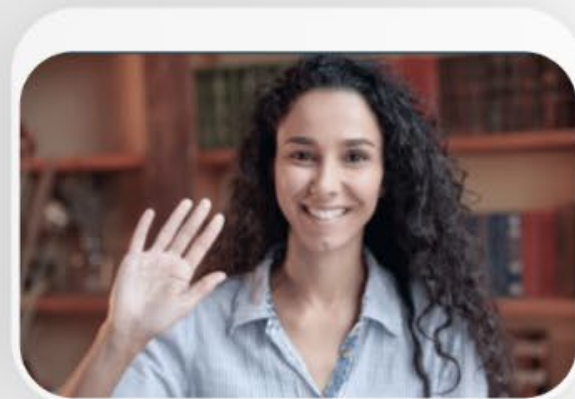
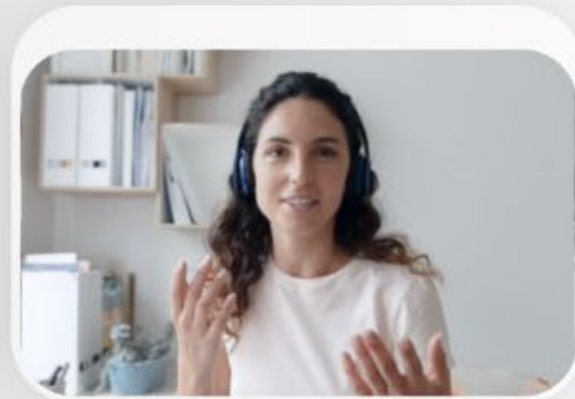
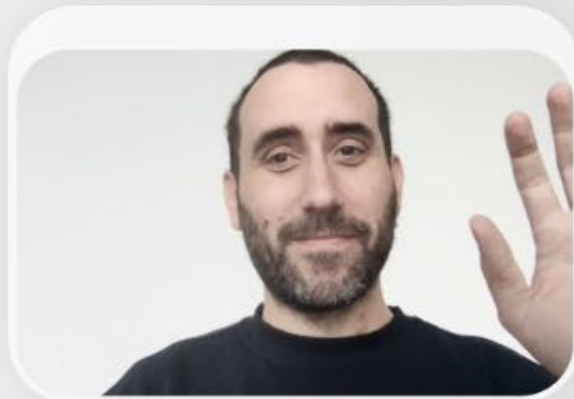
text menu

<https://qflow.uc.pt>  
15/09/2021 10:22

<https://ucmotionscreen.uc.pt>  
15/09/2021 10:23

<https://ucstudenthub.uc.pt>  
15/09/2021 10:23

Escreva uma mensagem...



Tradução automática de mensagens

Fechar

Traduza automaticamente as mensagens dos participantes no idioma que precisar.



Ativado

Traduzir para

English



Com esta funcionalidade pode traduzir individualmente cada mensagem, através do botão "Traduzir". O texto original está também sempre disponível.

# 1st YEAR

September 2020 to October 2021

**31.135**

active  
users

**39.279**

classes and virtual  
meetings

**742.712**

users

(non unique)

**400 TB**

traffic  
video / audio




# UC new Digital Building Architecture



Frontend

 Apps  
PWA / SPA



 Native App  
IOS / Android



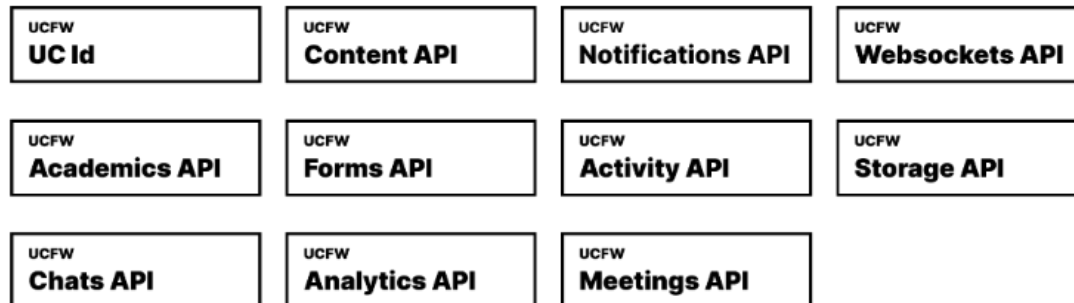
Tech



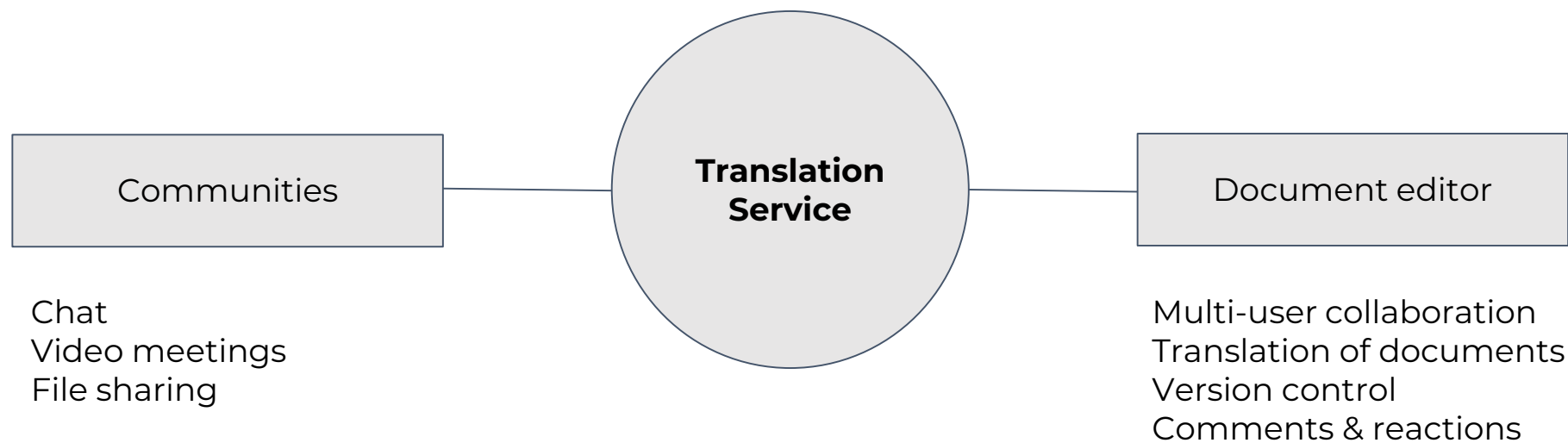
API REST JSON communication

Backend

Core Microservices



# Translation service



# Communities

for a small group or as wide as an scientific area

**Open communities:** search and join open communities - find the latest papers in your area of interest or collaborate in active translation papers

**Close communities** or groups

**Anthropology**

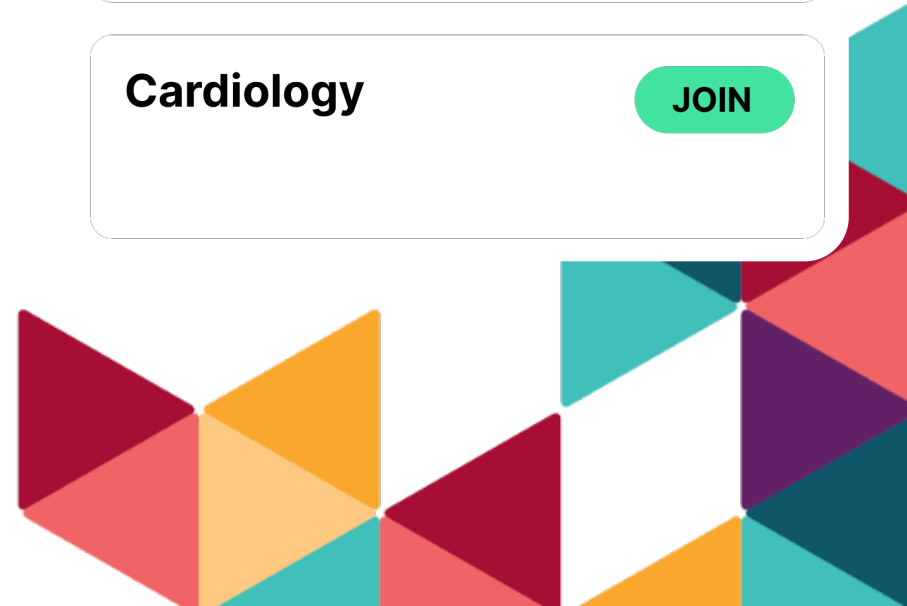
JOIN

**Ancient Greece**

✓ JOINED

**Cardiology**

JOIN



# Community

Chat and communicate with video

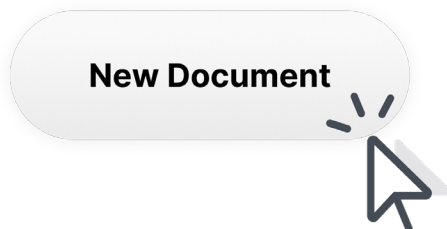
Upload your paper and get insights, comments or suggestions

Allow others to translate part or the full paper

Have control of who can edit, comment or read your paper



# Multimedia Document Editor



or upload an existing document from your computer





# Multimedia Document Editor

## Title

Your text here



+ Add block of content

text

images

links

videos

files



# Translation

## ORIGINAL LANGUAGE

### Título

Ó mar salgado, quanto do teu sal  
São lágrimas de Portugal!  
Por te cruzarmos, quantas mães choraram,  
Quantos filhos em vão rezaram!  
Quantas noivas ficaram por casar  
Para que fosses nosso, ó mar!

Valeu a pena? Tudo vale a pena  
Se a alma não é pequena.  
Quem quer passar além do Bojador  
Tem que passar além da dor.  
Deus ao mar o perigo e o abismo deu,  
Mas nele é que espelhou o céu.

- Fernando Pessoa

## TARGET LANGUAGE

More than 24  
target languages

EN

### Title

Oh salty sea, how much of your salt  
They are tears from Portugal!  
For crossing you, how many mothers cried,  
How many children prayed in vain!  
How many brides were left to marry  
That you should be ours, oh sea!

Worth it? Everything is worth it  
If the soul is not small.  
Who wants to go beyond Bojador  
You have to go beyond pain.  
God to the sea the danger and the abyss gave,  
But in him he mirrored the sky.

- Fernando Pessoa

# Translation & More

Versioning control - with ability to restore a previous version or approve a specific version of the document

Side comments and reactions

Simultaneous collaboration in a document or translation



# Professional language files

**TMX**

**XLIFF**

\*images, videos and other multimedia are ignored when downloading in these formats



# Pilot for the translation service



# Current status of the pilot

- ✓ Document editor
- ✓ Translation of documents
- Professional language files (TMX, XLIFF)
- ✓ Close communities: chat, video & file sharing
- Open communities
- Versioning









## Document title

### Text content

 Click to add content block

 Add page

-  Share document
-  Approve current version
-  Lock document
-  Translate document
-  Export as...
-  Delete document

- 
- 
- 

### Document tile

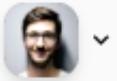
#### Page content

👉 Click to add content block

📄 Add page

☁ Save

⚡ Actions 1



## Versions



### Document title

Saved today at 14:00  
by Valentim Branquinho

Approved



### Another title

Saved yesterday at 9:00  
by Bruno Silva

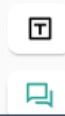
### Draft 1

Saved 01/03/2023 at 17:00  
by Bruno Silva

🕒 Restore version

👍 Approve version





### Comments

Add new comment

**Document title**

- Paragraph when we have

👤 Click to add block of content

📄 Add page

🗨️ Add comment

**Bruno Silva** today at 14:00 said:  
What if we do it this way?

+ 🗨️ 2

Reply

**Bruno**  
This is  
Today at

Reply

### Original document title

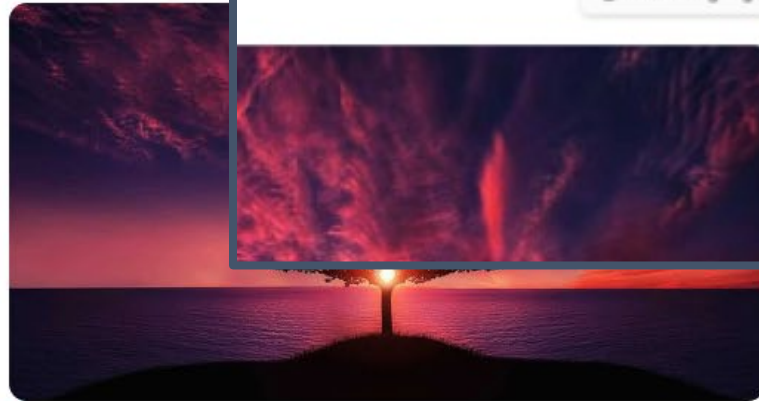
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla



📄 Add page

### New language t

- Text content in the original content (each document was copied)



📄 Click to add content block

📄 Add page

Rich text editor toolbar and content area. The toolbar includes icons for bold (B), italic (I), size (14), and color (T). The content area shows a text block with a language dropdown menu open, displaying options for Portuguese, English, and New language.

**Thank you!**

**Questions?**

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