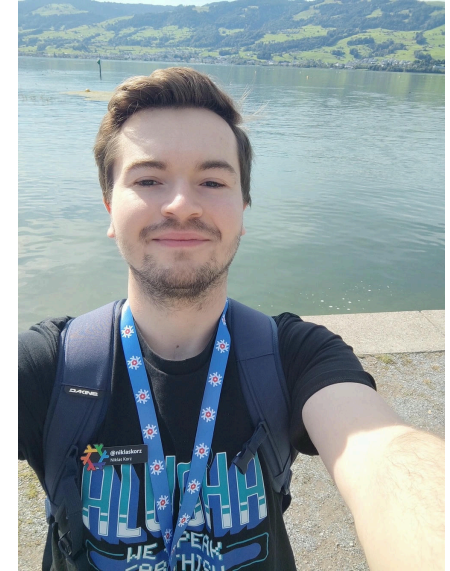# Bridging the Gap from WordPress to Weblate

Niklas Korz

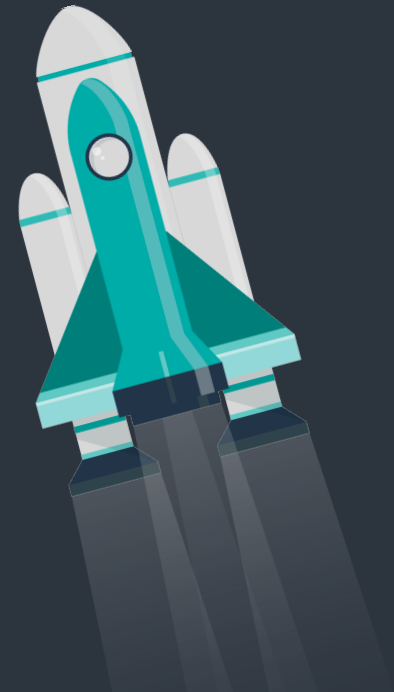# About Me

- Technical lead at **alugha.com**

- Rustacean 🦀 and Nix enthusiast ❄️

- Likes:

  ‣ computer graphics, interactive media

  ‣ pen & paper roleplaying games

- Website: **https://korz.dev**

- Mastodon: **@niklaskorz@rheinneckar.social**

What to expect from this talk

- Not a mature project you can use directly

- Mostly about sharing a fun little story

- Kindle that hacker spirit 🧙

- Involves FOSS projects (WordPress, Elementor, Weblate)

1. Motivation

2. From Idea to Solution

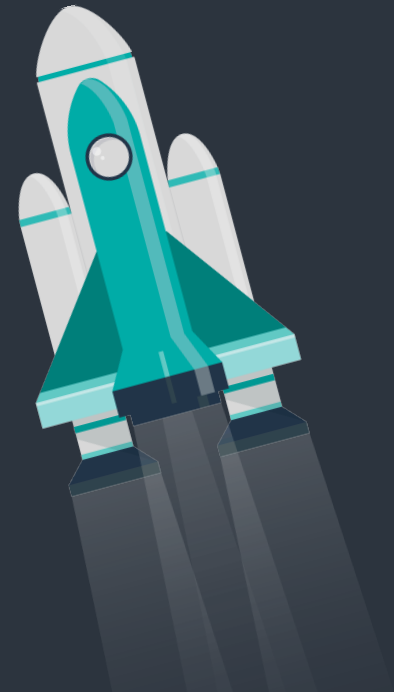3. Implementation

4. Conclusion

Why WordPress?

- Familiarity for our marketing team

- Familiarity for our designers

- Can be edited without developers' involvement

- FOSS (unlike, e.g., Framer)

- Decision made before WordPress vs. WP Engine

Why Weblate?

- Existing WordPress plugins: WPML, Polylang, GTranslate
  - ‣ Unfamiliar workflow for our translators
  - ‣ Translated pages stuck on old page versions
- Weblate: everything in one place
  - ‣ Already used for all our own UI translations
  - ‣ Ability to rollout translations as they come
  - ‣ Translation memory, Glossary, …

1. Motivation

2. **From Idea to Solution**

3. Implementation

4. Conclusion

alugha / cms / German

translated 100%

Translation | Overview | Search | Insights ▾ | Files ▾ | Operations ▾ | Community ▾

👁 Watching ▾

Translation status

3,682	Strings		95%
50,641	Words		97%
356,087	Characters		96%

Browse   **Translate**

Strings status   ⓘ

Strings	Words	Characters				
3,682	50,641	356,087	☐ All strings	Browse	Translate	Zen
3,682	50,641	356,087	▦ Translated strings	Browse	Translate	Zen
169	1,476	10,897	☐ Strings with any failing checks	Browse	Translate	Zen

Idea

- Generate JSON message file for Weblate to consume

  ‣ One content block = one message

  ‣ Granularity depending on block type (e.g., list items)

- Render localized pages with Weblate's translated messages

- External processing, basically a static page builder

Uniquely identifying block instances

- Gutenberg block instances do not have a stable ID

  ‣ **https://github.com/WordPress/gutenberg/issues/10157**

  ‣ **https://github.com/WordPress/gutenberg/issues/25195**

  ‣ "the clientId isn't persistent between editor sessions, it's regenerated for each block when the editor loads"

Uniquely identifying block instances

- Custom blocks:
  - ‣ store randomly generated ID as block attribute
  - ‣ problematic when copying pages / templates
  - ‣ not applicable to builtin or plugin block types
- Everything else: hash the text message

Elementor Website Builder

- **https://github.com/elementor/elementor** (GPLv3)

- More powerful drag & drop editor than Gutenberg

- Block instances ("widgets") have stable IDs 🎉

- Widgets can have custom data (through `data-` attributes)

Meet us

You find an overview of the past, actual and future exhibitions and events.

Blog

Get up to date with our latest articles on a wide range of topics.
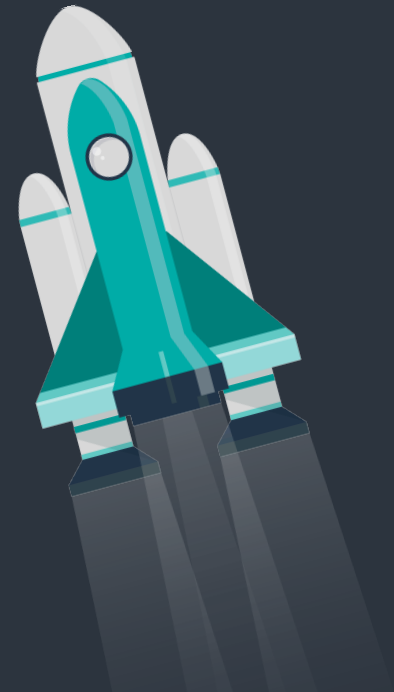
Video platform

Discover a variety of multilingual videos designed to entertain and inspire.

```html
<div
    class="elementor-element elementor-element-2a75..."
    data-element_type="widget"
    data-id="2a75c28"
    data-widget_type="heading.default"
>
    <div class="elementor-widget-container">
        <h3 class="elementor-heading-title">Blog</h3>
    </div>
</div>
```

```
<div
    class="elementor-element elementor-element-c996..."
    data-element_type="widget"
    data-id="c996cc7"
    data-widget_type="text-editor.default"
>
    <div class="elementor-widget-container">
        <p>Get up to date with our latest articles on a wide
range of topics.</p>
    </div>
</div>
```

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Implementation

- Originally on-the-fly processing in Rust 🦀

- Static processing in deployment pipeline a better fit

    ‣ implemented with Deno and TypeScript 🦕

    ‣ still heavily reliant on Rust ecosystem

- Fixed list of translatable widget types

The Full Pipeline

1. Preprocessing (URL rewriting, download assets, nest and minify CSS)

2. Message extraction (export of default locale)

3. Translate (in Weblate)

5. Message replacement (apply translated messages for all locales)

6. Deploy

Preprocessing

- Extract select head elements

- Extract and clean up actual content (`#content` element)

- Remove any JavaScript

- Download images

- Wrap CSS in a class wrapper (through `lightningcss`)

- Append content hash to all filenames for cache busting

Message Extraction

- HTML parser: Servo's html5ever (through deno-dom)

- Search DOM tree for Elementor widgets with translatable type

- Some recursion required depending on widget type

- Fallback: dataset attribute with custom message id

alugha / cms / German / Translate   translated 100%

|◀ ◀◀ ◀ 2,077 / 3,682 ▶ ▶▶ ▶| Filters ▾ [   ]   Position and priority ▾ ⇅   ⚡ Zen ⚙

Translation   🔗

English   **Key** our-team.text-editor.default.7907553

We're a 40+ member team driven by a shared passion for making video content truly global. With roots in different countries, languages, and 📋 🔲
disciplines, we collaborate to deliver multilingual solutions that connect audiences worldwide.

German   ⇥ ↵ NBS … „ " ' (-) – – —

Wir sind ein 40-köpfiges Team mit der gemeinsamen Leidenschaft, Videoinhalte weltweit bekannt zu machen. Unsere Wurzeln liegen in verschiedenen
Ländern, Sprachen und Bereichen – gemeinsam bringen wir deine mehrsprachigen Inhalte auf die Weltbühne.

☐ Needs editing ⓘ   247/2350 · 235

Save and continue   **Save and stay**   💬 **Suggest**   ▶▶ **Skip**

Nearby strings 31   **Similar keys** 30   **Comments**   **Automatic suggestions**   **Other languages** 25   **History**

Key	English	German	Actions
pricing.text-editor.defau lt.488942c	No, verification is optional. However, to share videos publicly and embed the alugha multilingual player, Free plan users must verify their account using a valid payment method (e.g., a credit card, PayPal, or other available options in your region). \Without verification, your videos remain private and visible only to you.\\ \ We ask for a valid payment method solely for secure identity verification, due to legal obligations related to inappropriate content. \You'll never be	Nein, die Verifizierung ist optional. Um jedoch Videos öffentlich zu teilen und den multilingual alugha-Player einzubetten, müssen Nutzer des kostenlosen Pakets ihr Konto mit einer gültigen Zahlungsmethode (z. B. Kreditkarte, PayPal oder anderen in deiner Region verfügbaren Optionen) verifizieren. \Ohne Verifizierung bleiben deine Videos privat und nur für dich sichtbar.\\ \ Die Angabe einer gültigen Zahlungsmethode dient ausschließlich der sicheren Identitätsprüfung aufgrund gesetzlicher Verpflichtungen im Zusammenhang mit unangemessenen Inhalten	📋 🔲

Glossary   🔍

English	German
No related strings found in the glossary.	

➕ Add term to glossary

String information   255757 ⓘ

Screenshot context   ✏
No screenshot currently associated.

➕ Add screenshot

Explanation   ✏
No explanation currently provided.

Key
our-team.text-editor.default.7907553

Labels   ✏
No labels currently set.

Flags   ✏
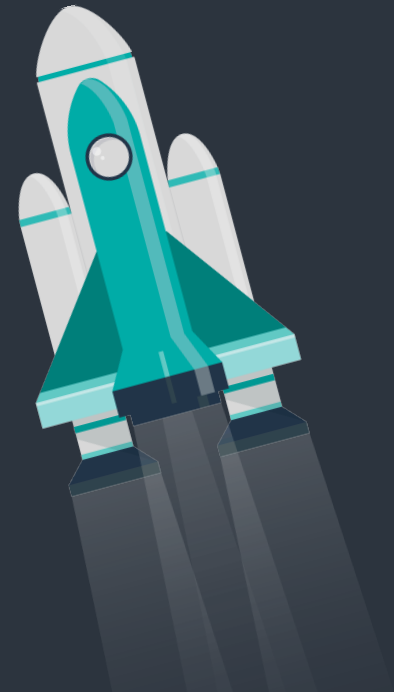*No flags currently set.*

String age
3 days ago

Last updated
a second ago

Message Replacement

- Uses same algorithm as message detection for content list

- Retrieve translation and insert as sanitized HTML

- Sanitization mainly allows formatting and links (`<a>`)

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Conclusion

- If it's HTML, you can translate it 🧙

- If it generates and consumes a map of messages, you can use Weblate

  - ideal scenario: text only nodes with a stable, unique id attribute

  - next best: you know how to reliably find and replace the text

  - lack of a stable id: hash the original message

Source code pls?

- Still needs some untangling before release

- Probably next week ✌️

- **https://codeberg.org/alugha/wp-elementor-translation-example**

- (repository currently empty)

Questions?

- Q&A now

- Talk to me during the conference

- Contact me:

  ‣ Email: **contact@korz.dev**

  ‣ Mastodon: **@niklaskorz@rheinneckar.social**