

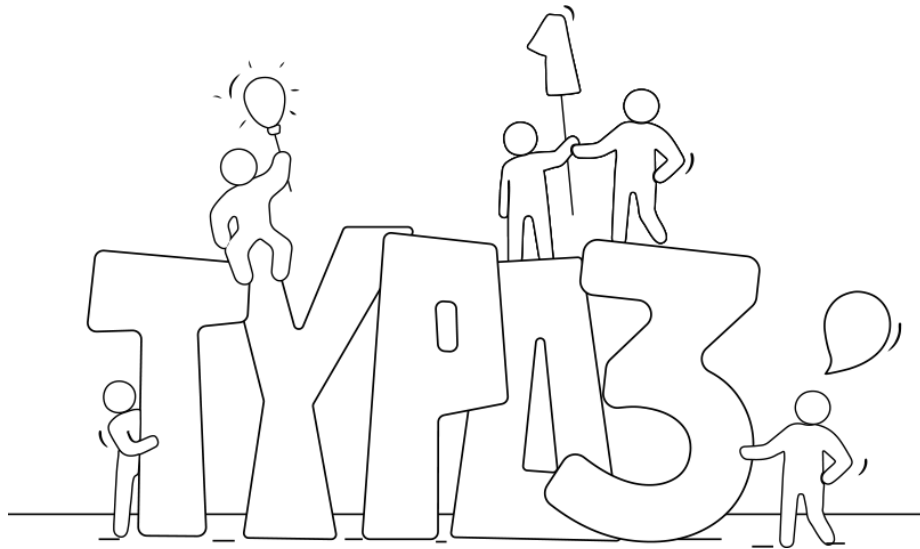


AUTOMATED TRANSLATION IN TYPO3

Whitepaper on Translating contents automatically using DeepL and Google Translate in TYPO3 backend

by Georgy GE





What is TYPO3?

TYPO3 CMS is an Open Source Enterprise Content Management System with a large global community. TYPO3 is written in PHP scripting language and was initially authored by Dane Kasper Skårhøj in 1997. The standout features of TYPO3 is its diversity and modularity. It can keep running on multiple web servers like Apache, Nginx or IIS and over numerous operating systems such as Linux, Microsoft Windows, FreeBSD, Mac OS X and OS/2.

TYPO3 provides the basis for modern content management that can be adapted by small business websites to large multi-lingual global enterprises portals. TYPO3 always keeps a check on the updated requirements of businesses and public institutions. TYPO3 is opted by small and medium enterprises and municipalities because of its license-cost-free open source approach.

In addition to the basic set of interfaces, functions and modules, TYPO3's functionality spectrum can be implemented using extensions. TYPO3 allows users or website operators to upgrade the corresponding websites using a solid extensions framework, and helps to publish and deliver any form of content to multiple devices. During the course of development of a TYPO3 website, a developer can rely on a strong community and about 6,000 extensions that offer unlimited possibilities.

Why TYPO3?

1. No license cost

TYPO3 is an open source software under the GNU General Public License with no license fee. Which means TYPO3 can be used free of charge and legal obligations. It has always been this way, it is this way, and it will stay this way.

2. Safety

TYPO3 arms its users with strong security features, compliance tooling, and regular updates for best-in-class website security to protect your brand reputation. The verification system is always continuously updated.

3. Keeps your website updated

Programming languages change all the time and new technologies hit the market frequently, taking this into account team TYPO3 provides regular crucial updates. In TYPO3, the core CMS is updated frequently and a quality TYPO3 template is updated with the latest coding practices and frequent upgrades. All the updates happen under-the-surface while a developer is continuing with his/her work.

4. Stability

TYPO3 is a large system that can handle thousands of articles, videos, and other content simultaneously. TYPO3 v10 LTS will be supported for 3 years until April 2023 by the TYPO3 community, which provides 1.5 years full maintenance and 1.5 years of security support. It also provides another 3 years with the ELTS program, until April 2026.

5. Ready-Made and Hand-Made Extensions

TYPO3 websites can be expanded using the ready-made built in extensions, which are available in the TYPO3 extensions repository and can be installed via the admin dashboard. And also hand-made custom extensions can be developed based on customer requirements.



6. **TypoScript**

TypoScript can be used to change the look and behavior of forms in the TSconfig field of a backend user, or a backend user group or in the TSconfig field of a page. The frontend rendering, in contrast, is defined by the TypoScript used in TypoScript templates.

7. **Availability for many modules**

TYPO3 can be used in different module such as blogs, e-Shop, e-Commerce, AJAX (drag and drop), SEO optimization, statistics, discussions, chat, newsletters, registrations of potential customers, photo galleries, video presentations, forms, and many more.

8. **Permission Rights and Levels**

TYPO3 allows setting up various permission levels for backend users. Also, the content management system allows you to manage multiple websites within one installation and share users, extensions, and content between them.

9. **TYPO3 is Multilingual**

TYPO3 has been translated into 175+ languages which makes it the most accessible CMS around.

10. **TYPO3 is a huge community**

There are a huge number of articles that can answer the queries raised while using TYPO3 templates. Along with numerous TYPO3-focused blogs, youtube channels, meetups, forums, and support groups.

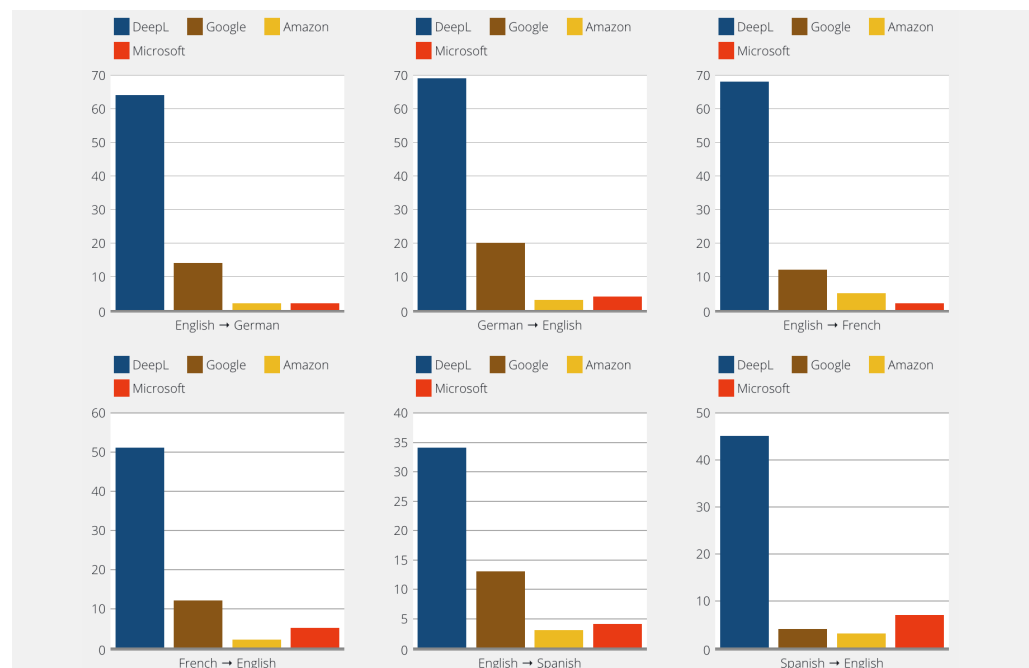
What is DeepL ?



The DeepL translator is an online service of DeepL GmbH, which offers machine translation released on 28 August 2017. With the drastic change in the approach to the development of multilingual translation systems, machine-made translations have gained considerably in quality. Rule-based and statistics-based systems, got overtaken by the new paradigm of neural networks with deep learning.

DeepL relies on an artificial neural network running on a supercomputer set up in Iceland. The power source provided can translate a million words in less than a second. The service uses Convolutional Neural Networks trained with the Linguee database. The translation is generated by a supercomputer that reaches 5.1 petaflops and is powered by cheap hydroelectric power in Iceland. Convolutional Neural Networks are in principle somewhat better suited for long, coherent word sequences, but have not been used by competitors so far in favour of recurrent neural networks due to their weaknesses. The weaknesses are compensated for at DeepL with additional tricks, some of which are publicly known.

To demonstrate the potential of DeepL, a test was carried out for translating 119 lengthy passages from a wide variety of subjects using DeepL Translator and some competing systems. The results are shown below:



What is Google Translate?



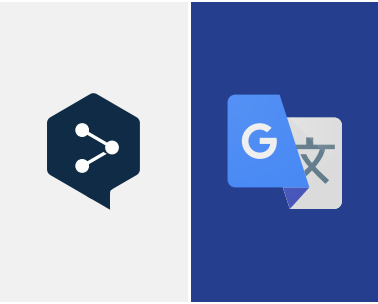
Google Translate is a free multilingual neural machine translation service developed by Google, to translate text and websites from one language into another. It offers a website interface, a mobile app for Android and iOS, and an application programming interface that helps developers build browser extensions and software applications. Google Translate supports over 100 languages at various levels and has been used by over 500 million users, with more than 100 billion words translated daily.

Google Translate can translate multiple forms of text and media, which includes text, speech, and text within still or moving images. Specifically, its functions include:

- **Written Words Translation:** a function that translates written words or text to a foreign language.
- **Website Translation:** a function that translates a whole webpage to selected languages.
- **Document Translation:** a function that translates a document uploaded by the users to selected languages. The documents should be in the form of: .doc, .docx, .odf, .pdf, .ppt, .pptx, .ps, .rtf, .txt, .xls, or .xlsx.
- **Speech Translation:** a function that instantly translates spoken language into the selected foreign language.
- **Mobile App Translation:** “Tap to Translate” feature facilitates instant translation, that is accessible inside any app without exiting or switching it.
- **Image Translation:** a function that identifies text in a picture taken by the users and translates text on the screen instantly by images.
- **Handwritten Translation:** a function that translates language that is handwritten on the phone screen or drawn on a virtual keyboard without the support of a keyboard.

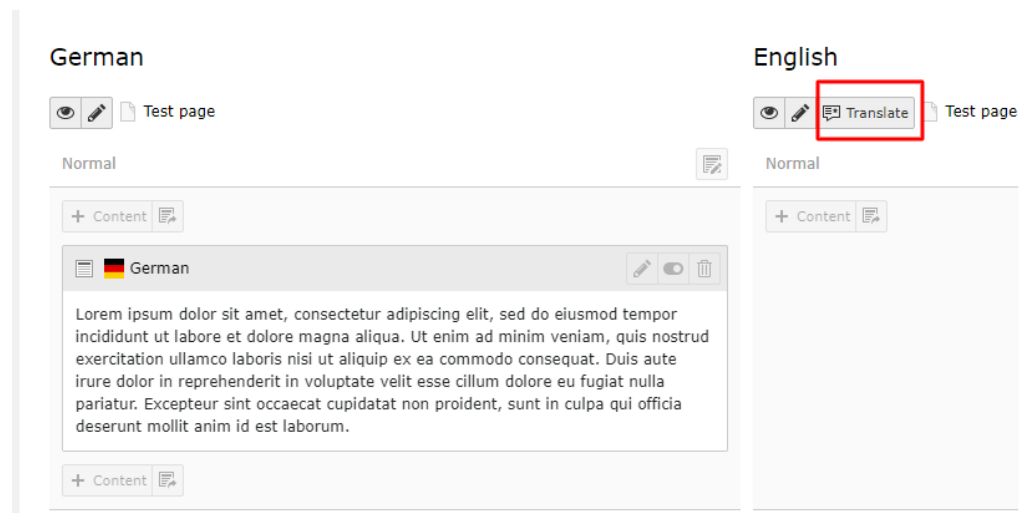
For most of its features, Google Translate provides the pronunciation, dictionary, and listening to translation. Additionally, Google Translate has introduced its own translate app which helps translation with a mobile phone in offline mode

Why DeepL and Google Translate?

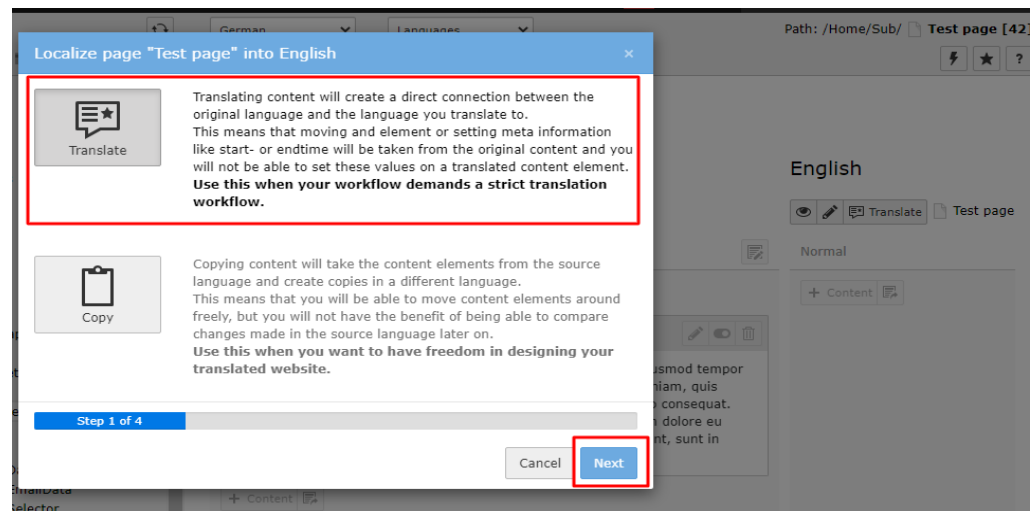


TYPO3 offers efficient tools for managing multilingual websites and domains in one place and versatile options for sharing content and configuration between them. Only a single login is needed to manage all these websites. The configuration for editor roles is easy in multiple websites. Reaching your target customers in a multitude of languages is more than most CMSes can deliver. TYPO3 offers excellent tools for creating and maintaining multilingual websites and has been built on state-of-the-art technology with international audiences in mind. It can manage any number of languages in a single installation.

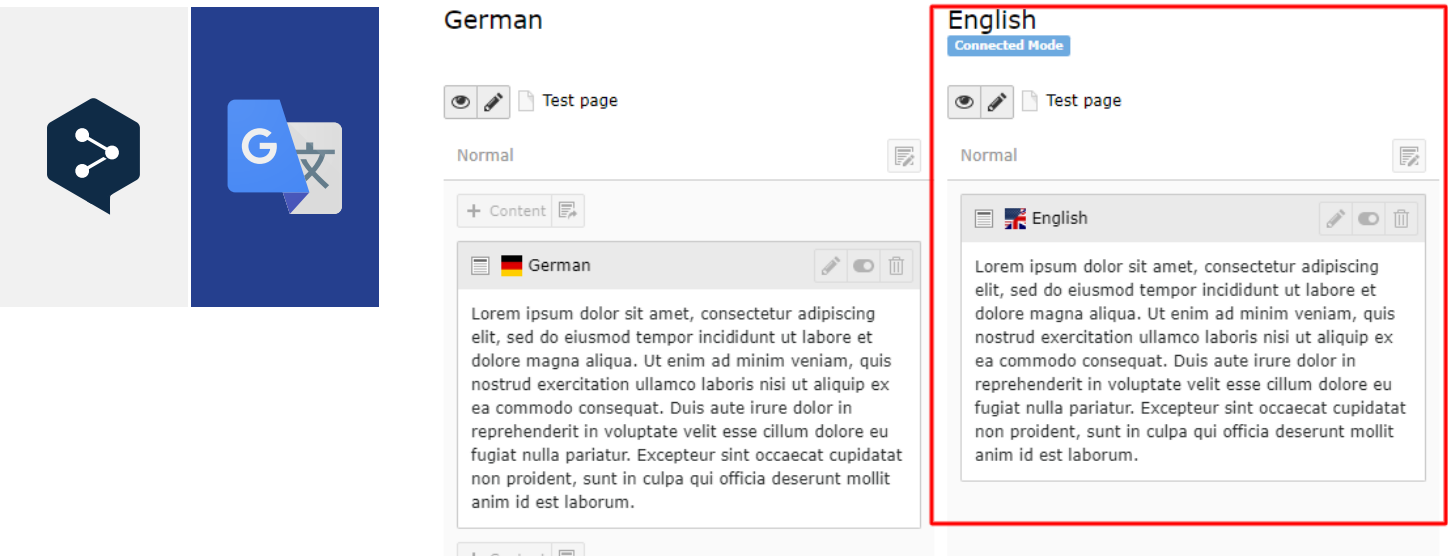
Let us see the default TYPO3 behaviour for language translation. If we need to translate a content in the default language, click the translate button of the other language as shown in the screenshot below.



After clicking the translate button, another window will be shown, from there choose the Translate option.



After checking the Next button, the content gets translated to the other language.



By editing the content, we can copy down the translation here.

How does it work?

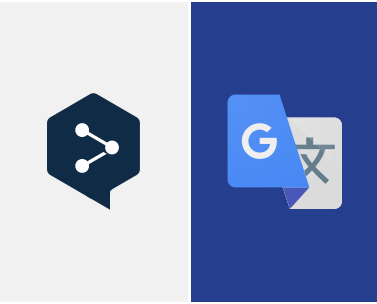
This extension provides options to translate content to desired language (supported by deepL). As a fallback, Google translate option is also provided as it provides support for more number of languages. For both DeepL and Google translate, there are two modes: normal and autodetect, where the later auto detects source language and translates it to the desired language.

To install the extension, get the extension from the extension manager or from the TYPO3 extension repository. After installing the extension, the API keys have to be set as extension configuration. The settings module helps to assign the system languages to either deepl supported languages or to Google supported languages.

Once the extension is installed and an API key is provided we are good to go for translating content elements. On translating content elements, four additional options appear, apart from normal translate and copy.

- ***DeepL Translate(auto detect)***
- ***DeepLTranslate***
- ***Google Translate(auto detect)***
- ***Google Translate***

Click on the desired option and continue with the next options and we get translated content very easily.



Localize record "Normal" into Lithuanian

Translate (deepl) (autodetect)
 Translating content via DeepL translate (autodetect) will create a translation from auto detected source language to the language you translate to. The translated content will be from deepL translation service which is 99 percentage accurate. DeepL service supports translation to and from English, French, German, Spanish, Italian, Dutch, and Polish languages. Other languages will be ignored and will default to the normal translate operation of TYPO3.

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Step 1 of 4

Cancel Next

DeepL translate options

Localize record "Normal" into Lithuanian

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Translate (Google)
 Translating content via Google Translate will create a translation from source language to the language you translate to. The translated content will be from Google translation service. Google service supports a fair share of languages.

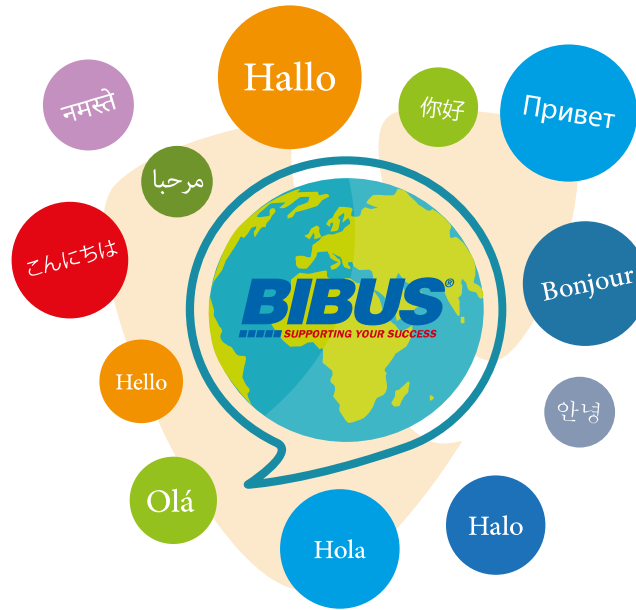
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Step 1 of 4

Cancel Next

Google translate options

Use case study



This extension was used in BIBUS AG Group websites which is a trading, service and manufacturing company that has existed for 70 years operating with more than 30 subsidiaries worldwide selling products in pneumatics, hydraulics, mechanics, drive technology, electrical engineering / electronics and automation.

The websites are multilingual for the various subsidiaries, more than 50+ domains are integrated into a single TYPO3 installation wherein 90+ editors will be able to work simultaneously worldwide fully utilising the power of TYPO3 enterprise features. Custom translation management for 30+ languages to satisfy the customer needs is present in Bibus AG Group websites.

As there are several subsidiaries and branches situated in different parts of the world, content for those subsidiaries are framed and added in different languages by a large group of editors. With the introduction of the deepL extension it simplified the process of translating the contents and that too on the fly. DeepL translate extension auto detects the source language of the content, in order to translate to chosen target language. The translation occurs through deepL translation service or Google translation service based on the option chosen by the user. DeepL translation service provides more precise translations compared to Google translation service.



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