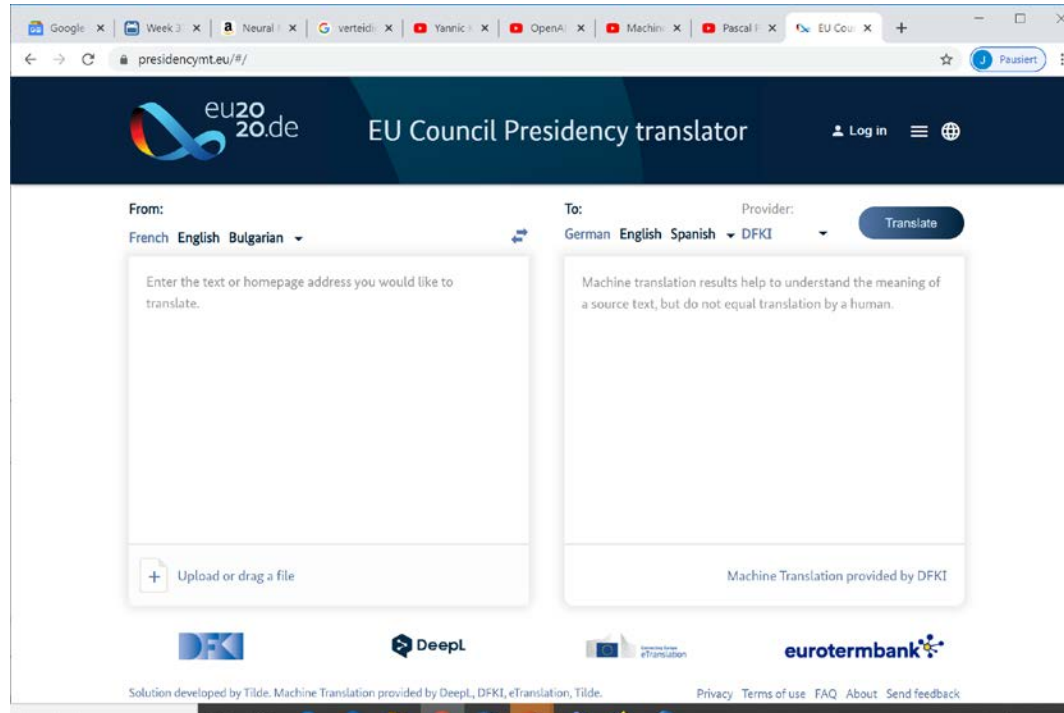


Do we still need to learn languages in the age of machine translation and AI?

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What we do: <https://presidencymt.eu/#/>



What we do: <https://presidencynt.eu/#/>

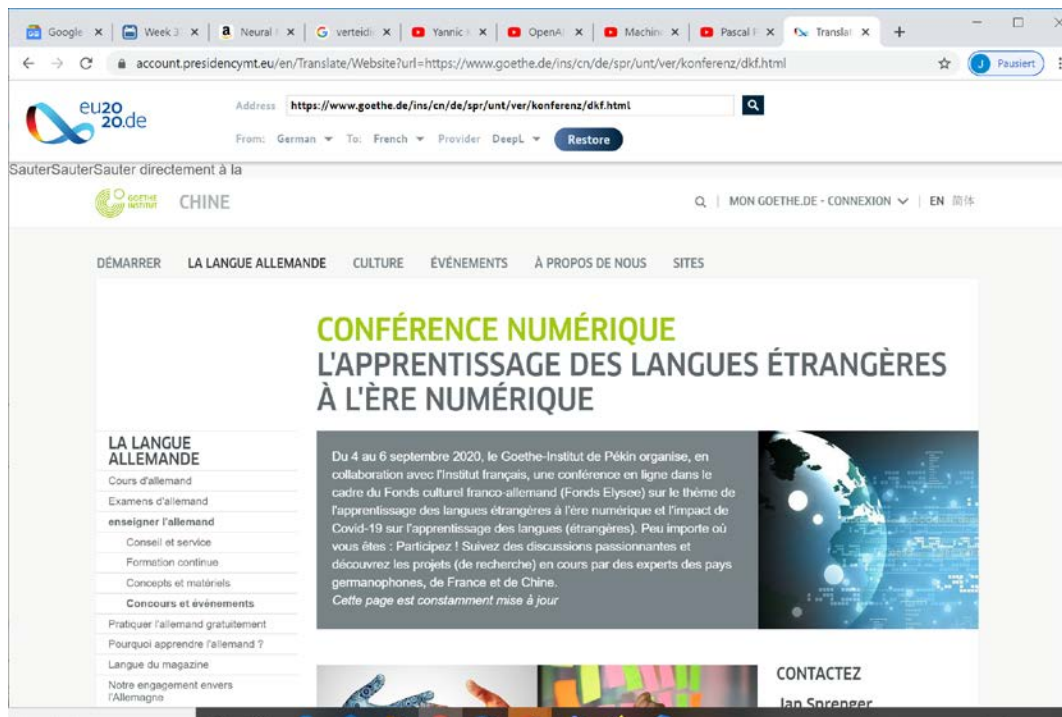


A screenshot of a web browser window. The address bar shows a URL from a translation service: account.presidencynt.eu/en/Translate/Website?url=https://www.goethe.de/ins/cn/de/spr/unt/ver/konferenz/dkf.html. The page content is a German website for the Goethe-Institut in China, titled 'DIGITALKONFERENZ FREMSPRACHENLERNEN IM DIGITALEN ZEITALTER'. The main text describes an online conference held from September 4-6, 2020, in Peking, organized by the Goethe-Institut and the Institut français. The conference focuses on digital language learning and the impact of COVID-19. A sidebar on the left lists various language learning resources under 'DEUTSCHE SPRACHE'. At the bottom right, there is a 'KONTAKT' section with the name 'Jan Sprenger'. The browser's translation tool is visible at the top, showing it translated from German to English using DeepL.

What we do: <https://presidencymt.eu/#/>



What we do: <https://presidencymt.eu/#/>



Language ... we use language to:



- to encode, store, transmit, share and manipulate **information**
- to express and to explain ourselves
- to convince, agree with, rebut others etc.
- to interact with others and our environment and as **social glue**
- our **laws** and **constitutions** are written in language

We use it

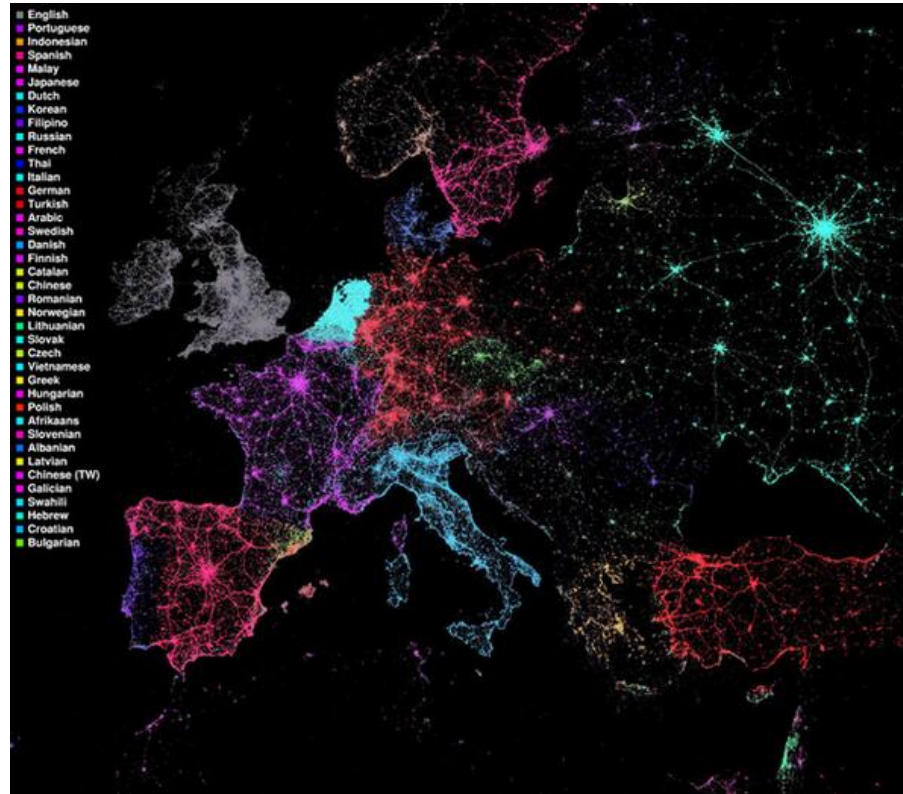
- in science, commerce, teaching and passing on **knowledge to the next generations**
- for pleasure, creativity and **aesthetic** enjoyment in puns, jokes and art
- we record history and culture and interpret and enjoy them through language
- our languages are a **core part of our identities**

Language



- Might even distinguish us from other species?
- Perhaps deep relationship between language and thought ...?
- We do pretty much everything in language
- We are embedded in a sea of language

Language(s)



Source: [http://www.washingtonpost.com/blogs/worldviews/wp/2014/01/13/40-more-maps-that-explain-the-world/...](http://www.washingtonpost.com/blogs/worldviews/wp/2014/01/13/40-more-maps-that-explain-the-world/)

Maschine Translation to the Rescue?



English→German

| Ave. | Ave. z | System |
|------|--------|----------------------------|
| 90.3 | 0.347 | Facebook-FAIR |
| 93.0 | 0.311 | Microsoft-WMT19-sent-doc |
| 92.6 | 0.296 | Microsoft-WMT19-doc-level |
| 90.3 | 0.240 | HUMAN |
| 87.6 | 0.214 | MSKA-MADL |
| 88.7 | 0.213 | UCAM |
| 89.6 | 0.208 | NEU |
| 87.5 | 0.189 | MLLP-UPV |
| 87.5 | 0.130 | eTranslation |
| 86.8 | 0.119 | dfki-nmt |
| 84.2 | 0.094 | online-B |
| 86.6 | 0.094 | Microsoft-WMT19-sent-level |
| 87.3 | 0.081 | JHU |
| 84.4 | 0.077 | Helsinki-NLP |
| 84.2 | 0.038 | online-Y |
| 83.7 | 0.010 | lmu-ctx-tf-single |
| 84.1 | 0.001 | PROMT-NMT |
| 82.8 | -0.072 | online-A |
| 82.7 | -0.119 | online-G |
| 80.3 | -0.129 | UdS-DFKI |
| 82.4 | -0.132 | TartuNLP-c |
| 76.3 | -0.400 | online-X |
| 43.3 | -1.769 | en-de-task |

WMT 2019, Florence, Italy

Does MT make Human Translators Redundant?



Image: <http://workingtropes.imc.gatech.edu/wiki/index.php/File:Man-vs-machine.jpg>
License: CC BY-NC-SA 3.0

MT may Make Mistakes:

The screenshot shows a web browser window with the URL `presidencymt.eu/#/`. The page header includes the `eu2020.de` logo and the text "EU Council Presidency translator". The interface is set to translate from French to German. The source text is "Je mange une avocat." and the translated text is "Ich esse einen Anwalt.", which is a humorous mistranslation of "I am eating an attorney." The page also features a "Translate" button, a "Provider:" dropdown set to "DFKI", and a "Rate this translation" section with five stars. At the bottom, logos for DFKI, DeepL, eTranslation, and eurotermbank are visible, along with the text "Solution developed by Tilde. Machine Translation provided by DeepL, DFKI, eTranslation, Tilde." and a footer with links for "Privacy", "Terms of use", "FAQ", "About", and "Send feedback".

Do we still need human translators?



Yes! But their work will change:

- Often first raw translation by MT
- MT makes some mistakes
- Finding and correcting mistakes = post-editing
- Post-edited by human expert = translator

The New Human Translators



- Copy-editors > translation from scratch
- Supervisors
- Certify translations (MT + PE): guarantee correctness

Modern Human Translators:



- Computer and language technology savy
- Need to be excellent translators: language professionals in source and native in target language
- Domain and cultural knowledge

Language Learning?



- Do we still need to learn languages in the age of machine translation/AI?

Language Learning?



- Do we still need to learn languages in the age of machine translation/AI?
- Lets look at engineer/scientists and computers for guidance

Language Learning?



- Engineer/scientists use computers/pocket-calculators for > 60 years
- They are very happy to have them! They made them!
- Do they stop learning maths? NO!
- Are they unemployed: No!

A handwritten equation on lined paper: $\frac{1}{n} \sin x = \sin x = 6$. The fraction $\frac{1}{n}$ and the \sin in $\sin x$ are crossed out with red diagonal lines.

Language Learning?



- MT is the pocket-calculator of human translators
- Like engineers and computers
- Does it mean we/engineers don't need to learn maths? NO, on the contrary
- Same with languages!!!
- We need to learn languages, and not just to check up on the machines!