

UPOV Circular E-21/111

July 22, 2021

Distribution: Designated persons of members in the Consultative Committee

Madam,
Sir,

The purpose of this circular is to invite members of the Union to review the translations of selected UPOV meeting documents produced by neural machine translation technology and to comment on the proposal for the use of neural machine translation, **by August 21, 2021**.

BACKGROUND

The possible use of machine translation technology is aimed at reducing translation costs for UPOV documents in UPOV languages and to make UPOV materials available in a wider range of languages. In particular, the aim of including the use of machine translation technology in the policy on translation is the containment of translation costs for avoiding a significant increase in UPOV's operating expenses.

The background to the consideration of this matter by the Consultative Committee is provided in the Annex to this Circular.

The procedure for a pilot project agreed by the Consultative Committee in 2020 involved a first step to survey members of the Union on the acceptability of translations using neural machine translation technologies; followed by proposals on whether to use neural machine translation and for which purposes, based on the outcome of the survey (see document CC/97/15 "Outcome of the consideration of documents by correspondence", paragraphs 63 to 66). It is now proposed to combine these two steps.

The pilot project is based on selected meeting documents of the UPOV sessions in 2020 that had already been translated into the UPOV languages and posted in the UPOV website. These selected documents have been independently translated using neural machine translation technologies in French and Spanish, using WIPO Translate. WIPO Translate is a neural machine translation tool developed by WIPO, which has been "trained" using WIPO and UPOV documents. However, the existing translations of the selected meeting documents used in this exercise were not used to train WIPO Translate in order to provide a more realistic assessment of the tool.

The translations produced using WIPO Translate without post-editing are available in zip files, at the following link of the CC/98 webpage: https://www.upov.int/restrict/meetings/en/details.jsp?meeting_id=60599.

The pilot project could not be undertaken in German because there was no machine translation model in German. It is anticipated that the development of the machine translation model in German will take place before the ninety-eighth session of the Consultative Committee to be held on October 28, 2021.

The pilot project has revealed the following:

- (a) the need to modify the formatting of documents and/or certain parts of the documents to obtain the best output from the machine (e.g. list of countries; style of titles and tables); and
- (b) the need to categorize documents according to the level of precision required.

There is no machine translation model with an output of equal quality to human translation. It has further been concluded that the output from machine translation could be more widely used if followed by "light" post-editing. Documents translated by machine translation with "light" post-editing are anticipated to result in a 50 % (approximate) reduction in costs compared to human translation. Machine translation without light post-editing would incur no cost.

PROPOSALS

In accordance with the aim of using machine translation technology to reduce translation costs for UPOV documents in UPOV languages and to make UPOV materials available in a wider range of languages, it is proposed to amend paragraph 15 of the Draft UPOV Policy on translation (see document CC/97/10 Rev. "Policy on translation", Annex II) and to include an Annex "Policy for the use of Machine Translation", as follows:

"15. Neural machine translation technologies will be used to minimize translation costs, except where members of the Union specify that human translation is necessary, in accordance with the Annex to this Policy on Translation."

"Annex: Policy for the use of machine translation

"1. The overall strategy on the use of machine translation for UPOV documents and materials is as follows:

(a) human translation will be used for documents or part of documents, as specified by the members of the Union, that require high precision;

(b) machine translation with light post editing, as appropriate, will be used for other documents or parts of documents.

Light post-editing includes: correction of mistakes if they affect the meaning; and deleting translation alternatives generated by the engine.

"2. As far as possible, the body of documents will contain only executive summaries and decision paragraphs, with other information presented in Annexes to the document in a format suitable for machine translation.

"3. Documents for which high precision is required, as specified by members of the Union will be translated with human translation. As far as possible, for such documents, the body of the document (i.e. executive summary and decision paragraphs) will be translated with human translation and the Annexes will be translated by machine translation with light post editing or machine translation only, as appropriate.

"4. Documents other than those in 3, will be translated by machine translation with light post editing, as appropriate.

"5. A suitable disclaimer will be added to the documents indicating that they are generated using machine translation, with light post editing, if applicable, and the accuracy cannot be guaranteed. Therefore, the text in the original language is the only authentic version."

On the basis of the replies to this Circular, the Office of the Union will prepare document CC/98/9 "Policy on translation" for consideration by the Consultative Committee by correspondence. It is expected that document CC/98/9 will be published on August 23, 2021.

In accordance with the above, the Consultative Committee is invited to:

(a) review the translations prepared using neural machine translation technologies, as provided in the zip files available at the following link of the CC/98 webpage; and

(b) comment on the proposed policy for the use of machine translation, as set out in paragraphs 1 to 5 above.

by **August 21, 2021**, to upov.mail@upov.int.

Yours sincerely,
UPOV Secretariat