Keynote Lecture-2

Practical Use of Machine Translation in International Organizations

Bruno Pouliquen
World Intellectual Property Organization, Switzerland
bruno.pouliquen@wipo.int

We propose to present our experience in statistical machine translation, in WIPO (World Intellectual Property Organization) and in other international organizations. Special focus will be given to the recent introduction of Neural Machine Translation in production.

WIPO has developed its own MT tool, initially based on open-source Moses (phrase-based SMT - PBSMT), more recently based on open-source for Neural Machine Translation (NMT), namely Nematus and AmunMT. The PBSMT tool, trained on different documents, has been successfully installed in the UN (United Nations) and in other international organizations (ITU, IMO, FAO, WTO, ILO, WTO, TGF and FAO). The tool is fully data-driven and has been trained on various language pairs. For example, in the patent domain, it allows users to understand a patent written in a language they do not master (languages covered: English, German, Spanish, French, Portuguese, Russian, Chinese, Korean and Japanese; Arabic to be added soon). The tool is also used for dissemination, as a "translation accelerator" and used by WIPO (and other UN agencies) by translators to help them in their daily work.

It should be noted that our tool has always better automatic metrics (BLEU) for every comparison we did against general translation tool (Google) using PBSMT. The recent NMT is also clearly better (for patent texts) than GNMT (the recently published Neural machine translation engine released by Google).

The tool has now reached maturity and is successfully used in production: by translators in UN since 5 years and by users of WIPO search engine PATENTSCOPE since 6 years. NMT for Chinese has been put in production in September in WIPO. We plan to release NMT for most of the language pairs soon.

D S Sharma, R Sangal and A K Singh. Proc. of the 13th Intl. Conference on Natural Language Processing, page 1,
Varanasi, India. December 2016.