# **Machine Translation Summit XVI**

http://www.mtsummit2017.org

Proceedings of MT Summit XVI
Vol.2 Commercial MT Users and Translators Track

Masaru Yamada, Mark Seligman

## Proceedings of MT Summit XVI,

## **Vol.2 Commercial MT Users and Translators Track**

Masaru Yamada (Kansai University)

Mark Seligman (Spoken Translation, Inc.), Eds.

Co-hosted by



http://www.eamt.org/iamt.php

Asia-Pacific Association for Machine Translation

http://www.aamt.info



http://www.is.nagoya-u.ac.jp/index\_en.html

©2017 The Authors. These articles are licensed under a Creative Commons 3.0 license, no derivative works, attribution, CC-BY-ND.

### Introduction

The Commercial MT Users and Translators Track at MT Summit XVI, to be held in Japan for the first time in 24 years, features twenty presentations in diverse fields of research from worldwide organizations including academic institutes, enterprises, and individuals in the translation and language technology industry. This Summit is the first since the practical deployment of neural machine translation (NMT), so many of the presentations involve related AI-driven MT technologies. Other studies go beyond traditional post-editing and efficiency scenarios to address the adoption of state-of-the-art MT across the industrial spectrum: topics include MT use cases in crisis scenarios or educational environments; terminology management and QA in systems combining customized MT engines; and many more. Some additional examples:

- Quality evaluation of NMT and comparison with SMT
- Detailed investigation of post-editing errors and efficacy
- Dictation of translation

Many presentations will document the acceptance and integration of neural machine translation technology and its application in real-life scenarios.

Commercial MT Users and Translators Track Co-Chairs

Masaru Yamada

Mark Seligman

### **Commercial MT Users and Translators Track Co-chairs**

Masaru Yamada Kansai University

Mark Seligman Spoken Translation, Inc.

## **Commercial MT Users and Translators Track Committee**

Jan Alexandersson

Srinivas Bangalore

Laurent Besacier

Michael Carl

Mike Dillinger

Kurt Eberle

Satoshi Enoue

Raymond Flournoy

Anthony Hartley

Ron Kaplan

Jeffrey Killman

Isabel Lacruz

Yves Lepage

Rei Miyata

Joss Moorkens

Ricardo Muñoz

Masaaki Nagata

Sharon O'Brien

Akiko Sakamoto

Xiaodong Shi

Michel Simard

Midori Tatsumi

Carlos Teixeira

Kirti Vashee

Yuji Yamamoto

#### **Contents**

P	a	g	e
•	u	$\overline{}$	_

1 Zero-shot translation for low-resource Indian languages

Giulia Mattoni, Pat Nagle, Carlos Collantes and Dimitar Shterionov

Feature-rich NMT and SMT post-edited corpora for productivity and evaluation tasks with a subset of MQM-annotated data

Kim Harris, Lucia Specia and Aljoscha Burchardt

- Usability of web-based MT post-editing environments for screen reader users Silvia Rodríguez Vázquez, Sharon O'Brien and Dónal Fitzpatrick
- 26 Live presentations to a multilingual audience: personal universal translator Chris Wendt
- 27 Towards a full-scale neural machine translation in production:

the Booking.com use case

Pavel Levin, Nishikant Dhanuka, Talaat Khalil,

Fedor Kovalev and Maxim Khalilov

38 The Interact Project and Crisis MT

Sharon O'Brien, Chao-Hong Liu, Andy Way, João Graça, André Martins, Helena Moniz, Ellie Kemp and Rebecca Petras

- 49 A Case Study of Machine Translation in Financial Sentiment Analysis Chong Zhang
- 59 A New Methodology to Maximize the Strength of SMT and NMT Yu Gong and Demin Yan
- 67 Rule-based MT and UTX Glossary Management Honda's Case Dealing with Thousands of Technical Terms

Saemi Hirayama and Yuji Yamamoto

- 79 A detailed investigation of Bias Errors in Post-editing of MT output Silvio Picinini and Nicola Ueffing
- 91 Terminology-based post-editing of neural MT using the structured glossary data format, UTX

Yuji Yamamoto

109 Harvesting Polysemous Terms from e-commerce data to enhance QA Silvio Picinini

116 Translation Dictation vs. Post-editing with Cloud-based Voice Recognition: A Pilot Experiment

Julián Zapata, Sheila Castilho and Joss Moorkens

Will Neural MT be a Breakthrough in Terms of Post-Editing Productivity in English-to-Japanese Technical Translation?

Tsunao Mikasa and Nobuko Kasahara

142 The Impact of MT Quality Estimation on Post-Editing Effort

Carlos S. C. Teixeira and Sharon O'Brien

154 Utilizing Neural MT Engines in Industrial Translation Toru Shishido

166 Comparative Evaluation of NMT with Established SMT Programs
Lena Marg, Naoko Miyazaki, Elaine O'Curran and Tanja Schmidt

179 Journey around Neural Machine Translation quality

Marco Ganci

206 A Reception Study of Machine Translated Subtitles for MOOCs Ke Hu, Sharon O'Brien and Dorothy Kenny

214 TraMOOC - Translation for Massive Open Online Courses: Recent Developments Joss Moorkens, Sheila Castilho, Federico Gaspari, Andy Way, Rico Sennrich, Antonio Valerio Miceli Barone, Valia Kordoni, Markus Egg, Maja Popović, Yota Georgakopoulou, Maria Gialama, Vilelmini Sosoni, Iris Hendrickx and Menno van Zaanen