Proceedings of the 33rd Pacific Asia Conference on Language, Information and Computation

Edited by Ryo Otoguro, Mamoru Komachi and Tomoko Ohkuma

> September 13–15, 2019 Future University Hakodate

© 2019 The PACLIC 33 Organizing Committee and PACLIC Steering Committee

All rights reserved. Except as otherwise expressly permitted under copyright law, no part of this publication may be reproduced, digitized, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, Internet or otherwise, without the prior permission of the publisher.
Copyright of contributed papers reserved by respective authors
ISSN 2619-7782
Published by Waseda Institute for the Study of Language and Information, Waseda University, Tokyo, Japan

Acknowledgments

PACLIC 33 is hosted by Future University Hakodate in conjunction with The Japan Association for the Study of Logic, Language and Information and supported by Waseda University Comprehensive Research Organization, The Association for Natural Language Processing, The Japan Society for Artificial Intelligence and Hakodate City.

Foreword

It is our great pleasure and honor to hold the 33rd Pacific Asia Conference on Language, Information and Computation (PACLIC 33) at Future University Hakodate, Japan. "Open space, Open mind" is the underlying philosophy of Future University Hakodate, which makes it exactly the right place to host PACLIC. Following the long tradition of PACLIC, PACLIC 33 also emphasizes the synergy of theoretical analysis and processing of natural language. PACLIC 33 aims to enhance the interaction between researchers working in different fields of language study in the Asia-Pacific region as well as around the world.

We received 132 submissions from around the world including Algeria, Brazil, Chile, China, Czechia, France, Hong Kong, India, Indonesia, Iran, Italy, Japan, Macao, Mexico, Philippines, Singapore, South Korea, Taiwan, Thailand, Tunisia, Ukraine, the UK, the US and Vietnam. Out of 132 papers, 37 were accepted for oral presentations and 26 for poster presentations. The acceptance rate for oral presentations and poster presentations are 28% and 20% respectively.

In addition to oral and poster presentations, the conference highlights four keynote talks, one special invited talk and one satellite workshop. We are grateful to Justine Cassell from Carnegie Mellon University, Mary Dalrymple from University of Oxford, Yuji Matsumoto from Nara Institute of Science and Technology/Riken AIP and Junichi Tsujii from National Institute of Advanced Industrial Science and Technology for accepting to give a keynote talk. Jong-Bok Kim from Kyung Hee University has kindly agreed to give an invited talk in commemoration of the Humboldt Research Award given to him in 2019. We also thank Yasunari Harada, Chu-Ren Huang, Jong-Bok Kim, Yasuhiro Katagiri and Miwa Morishita for organizing the 27th Joint Workshop on Linguistics and Lanuage Processing during the conference and Rachel Edita O. Roxas and Manolito V. Octaviano for giving an invited talk in the workshop.

PACLIC 33 would not be made possible without the support from many people. We would like to express our sincere gratitude toward program committee members and sub-reviewers whose professional reviews allowed us to maintain the high quality standard of PACLIC. We are also deeply indebted to the local organizing committee at Future University Hakodate: Yasuhiro Katagiri, Hitoshi Matsubara, Hajime Murai, Asuka Terai, Misako Nambu, Kaoru Sumi and Ayahiko Niimi as well as student staff members. We would also like to thank Waseda University Comprehensive Research Organization, The Association for Natural Language Processing, The Japan Society for Artificial Intelligence and Hakodate City for their generous financial support for the conference.

Ryo Otoguro Mamoru Komachi Tomoko Ohkuma PACLIC 33 Program Committee Chairs

Organizers

Steering Committee Standing Members

Chu-Ren Huang, The Hong Kong Polytechnic University, Hong Kong Jong-Bok Kim, Kyung Hee University, Seoul Ryo Otoguro, Waseda University, Tokyo Rachel Edita O. Roxas, National University, Manila Maosong Sun, Tsinghua University, Beijing Benjamin T'sou, City University of Hong Kong, Hong Kong Min Zhang, Soochow University, Suzhou

Organizing Committee

Ryo Otoguro, Waseda University (Chair) Yasunari Harada, Waseda University (Co-chair) Yasuhiro Katagiri, Future University Hakodate (Honorary chair)

Local Organizing Committee

Yasuhiro Katagiri, Future University Hakodate (Chair) Hitoshi Matsubara, Future University Hakodate (Co-chair) Hajime Murai, Future University Hakodate Asuka Terai, Future University Hakodate Misako Nambu, Future University Hakodate Kaoru Sumi, Future University Hakodate Ayahiko Niimi, Future University Hakodate

Program Committee

Chairs

Ryo Otoguro, Waseda University Mamoru Komachi, Tokyo Metropolitan University Tomoko Ohkuma, Fuji Xerox Co.

Members

Laurence AnthonyOlivia LamNattama PongpairojAlice Mae ArbonYong-Hun LeeHaoliang QiMasayuki AsaharaAlbert LeeTao QianQian ChenSang-Im Lee-KimRodolfo Jr Raga

Doris Chen
Charibeth Cheng
Emmanuele Chersoni
Sung-Kwon Choi

Baoli Li
Yafeng Ren
Hiroyuki Shinnou
Shu-Ing Shyu
Melanie Siegel

Jin-Woo Chung Te-Hsin Liu Pornsiri Singhapreecha
Li Dong Bingquan Liu Leif Romeritch Syliongka

Helena Gao Yunfei Long Zhiyang Teng Yasunari Harada Lu Lu Yuen-Hsien Tseng Hitomi Hirayama Chen Lyu Takehito Utsuro Jeffrey J. Holliday Erlyn Manguilimotan **Zhongqing Wang** Munpyo Hong Yuji Matsumoto Tak-Sum Wong Shu-Kai Hsieh Koji Mineshima

Shu-Kai Hsieh

Jiangping Huang

Suyeon Im

Tak-Sum Wong

Hongzhi Xu

Yun Xue

Jie Yang

Yang

Daisuke Kawahara

Jong-Bok Kim

Nathaniel Oco

Satoru Yokoyama

Ji-Hye Kim

Kenji Oda

Kanako Komiya

Ethel Ong

Valia Kordoni

Chutamanee Onsuwan

Cheng-Zen Yang

Satoru Yokoyama

Minoru Yoshida

Liang-Chih Yu

Longtu Zhang

Yusuke Kubota Yohei Oseki Meishan Zhang
Oi Yee Kwong David Yoshikazu Oshima Jiajun Zhang
Huei-Ling Lai Jong C. Park Chengzhi Zhang

Additional reviewers

Kristine Mae Adlaon Yuan Ling Helen Villanueva
Yoshihiko Asao Rui Liu Hiroaki Yamada
Eun Jin Chun Shutian Ma
Masahira Kanaka Hiraki Narita Hayahide Yamagishi

Masahiro Kaneko Hiroki Narita Hayanide Yamagishi Wakako Kashino Mizuki Sango Qingqing Zhou

Table of Contents

	Foreword iii
	Organizers
Regu	ılar Papers
	A Gold Standard Dependency Treebank for Indonesian Language <i>Ika Alfina, Arawinda Dinakaramani, Mohamad Ivan Fanany and Heru Suhartanto</i> 1
	Investigating an Effective Character-level Embedding in Korean Sentence Classification Won Ik Cho, Seok Min Kim and Nam Soo Kim
	Incorporating Chains of Reasoning over Knowledge Graph for Distantly Supervised Biomedical Knowledge Acquisition Qin Dai, Naoya Inoue, Paul Reisert, Ryo Takahashi and Kentaro Inui
	Epistemic marker, event type and factivity in emotion expressions Xuefeng Gao, Chu-Ren Huang and Sophia Yat-Mei Lee
	AMR Normalization for Fairer Evaluation Michael Wayne Goodman
	A CCG-based Compositional Semantics and Inference System for Comparatives **Izumi Haruta, Koji Mineshima and Daisuke Bekki**
	A Type-Theoretical Approach to Register Classification Renkui Hou and Chu-Ren Huang
	Modeling the Idiomaticity of Chinese Quadra-syllabic Idiomatic Expressions Shu-Kai Hsieh, Yu-Hsiang Tseng and Chiung-Yu Chiang
	V- <i>gei</i> Double Object Construction and Extra Argument in Mandarin <i>Yu-Yin Hsu and Teng Qu</i>
	Re-examining Syntactic, Semantic and Pragmatic Properties of Long-Distance Bound <i>Cakicasin</i> in Korean: An Experimental Study Ji-Hye Kim and Yong-Hun Lee85
	The persuade-construction in Korean controls nothing Juwon Lee and Sanghoun Song
	Pretrained language model transfer on neural named entity recognition in Indonesian conversational texts Rezka Leonandva and Fariz Ikhwantri 104

Long-distance dependencies in continuation grammar Cara Su-Yi Leong and Michael Yoshitaka Erlewine
On Null Clausal Complements in Taiwan Southern Min *Huei-Ling Lin**
A Community Detection Method Towards Analysis of Xi Feng Parties in the Northern Song Dynasty Qianying Liu, Qiyao Wang, Wending Chen and Daisuke Kawahara
Analysis of Reply-Tweets for Buzz Tweet Detection Kazuyuki Matsumoto, Yuta Hada, Minoru Yoshida and Kenji Kita
Evaluating the suitability of human-oriented text simplification for machine translation *Rei Miyata and Midori Tatsumi
Building Cendana: a Treebank for Informal Indonesian David Moeljadi, Aditya Kurniawan and Debaditya Goswami
Simulating Segmentation by Simultaneous Interpreters for Simultaneous Machine Translation Akiko Nakabayashi and Tsuneaki Kato
Attention mechanism for recommender systems Xuan-Huy Nguyen and Le-Minh Nguyen174
Identifying Adversarial Sentences by Analyzing Text Complexity Hoang-Quoc Nguyen-Son, Tran Phuong Thao, Seira Hidano and Shinsaku Kiyomoto182
Phi-Agreement by C in Japanese: Evidence from Person Restriction on the Subject Miki Obata and Mina Sugimura
Towards the Non-predicate Modification Analysis of the Expressive Small Clause in Japanese <i>Kenji Oda</i>
Syntax and Semantics of Numeral Classifiers in Japanese Atsushi Oho
An emoticon is well worth a few empathetic words Juan Pablo Rodriguez Gomez, Tomoko Iizuka, Edson T. Miyamoto, Changyun Moon and Kaoruko Ouchi
Utilization of histories by country in question-answering system to solve world history essay type questions Kotaro Sakamoto, Yuta Fukuhara, Madoka Ishioroshi, Kosuke Ohya, Keigo Iwasaki, Hidevuki Shibuki and Tatsunori Mori

Over-sampling Methods for Polarity Classification of Imbalanced Microbiog Texts Kiyoaki Shirai and Yunmin Xiang
Thai Learners of English are Sensitive to Number-Agreement Violations *Teeranoot Siriwittayakorn and Edson T. Miyamoto
May and Can Constructions in Spoken Corpus: A Constructionist Approach Tsi-Chuen Tsai and Huei-Ling Lai
On the Effectiveness of Low Rank Matrix Factorization for LSTM Model Compression Genta Indra Winata, Andrea Madotto, Jamin Shin, Elham J. Barezi and Pascale Fung 253
Prospective Result of Causative Predicates: A Uniform Analysis *Yusuke Yagi
Probabilistic Measures for Diffusion of Linguistic Innovation: As Seen in the Usage of Verbal "Nok" in Thai Twitter Nozomi Yamada and Pittayawat Pittayaporn
Thai Legal Term Correction using Random Forests with Outside-the-sentence Features Takahiro Yamakoshi, Vee Satayamas, Hutchatai Chanlekha, Yasuhiro Ogawa, Takahiro Komamizu, Asanee Kawtrakul and Katsuhiko Toyama
A Corpus of Sentence-level Annotations of Local Acceptability with Reasons Wonsuk Yang, Jung-Ho Kim, Seungwon Yoon, Chaehun Park and Jong C. Park288
Explicit Contextual Semantics for Text Comprehension Zhuosheng Zhang, Yuwei Wu, Zuchao Li and Hai Zhao
Chinese–Japanese Unsupervised Neural Machine Translation Using Sub-character Level Information
Longtu Zhang and Mamoru Komachi
FTA: a novel feature training approach for classification Wanwan Zheng and Mingzhe Jin
Poster papers
Bi-directional Decoder Model with Efficient Fine-tuning of Embedding for Named Entity Recognition
Panuwat Assawinjaipetch, Kiyoaki Shirai, Virach Sornlertlamvanich and Sanparith Marukatat
Making Metaphors: A Quantitative Analysis of Metaphor Production and Interpretation in Japanese Using a Multimodal Task
Brian Birdsell, Natsuko Tatsuta and Hiroaki Nakamura

Multiple Pivots in Statistical Machine Translation for Low Resource Languages Sari Dewi Budiwati and Masayoshi Aritsugi
Semi-supervised learning for all-words WSD using self-learning and fine-tuning <i>Rui Cao, Jing Bai, Wen Ma and Hiroyuki Shinnou</i>
A Reinforced Improved Attention Model for Abstractive Text Summarization Yu Chang, Hang Lei, Xiaoyu Li and Yiming Huang
Semantic Distance and Creativity in Linguistic Synaesthesia Emmanuele Chersoni, Francesca Strik Lievers and Chu-Ren Huang
Investigating Mandarin Negative Terms: An Evaluation of Semantic-Pragmatic Meaning and Metaphorical Mechanisms Siaw-Fong Chung, Yi-Ling Tseng, Heng-Chia Liao and Man-Hua Huang
Mapping distributional to model-theoretic semantic spaces: a baseline Franck Dernoncourt
Intrinsic Evaluation of Grammatical Information within Word Embeddings Daniel Edmiston and Taeuk Kim
A Continuation-based Analysis of Contrastive <i>Wa</i> in Japanese Hitomi Hirayama
Effects of Prosodic Focus on Voice Onset Time (VOT) in Chongming Chinese Yitian Hong, Si Chen, Yike Yang and Bei Li
Web Page Segmentation for Non Visual Skimming Judith Jeyafreeda, Stéphane Ferrari, Fabrice Maurel, Gaël Dias and Emmanuel Giguet
Automatic Speech Act Classification of Korean Dialogue based on the Hierarchical Structur of Speech Act Categories Youngeun Koo, Jiyoun Kim and Munpyo Hong
Investigation of Mandarin Clickbait Headlines: A Case Study of <i>Biàn Zhèyàng</i> Chi-Ling Lee, Siaw-Fong Chung and Hui-Wen Liu
On the "Easy" Task of Evaluating Chinese Irony Detection An-Ran Li, Emmanuele Chersoni, Rong Xiang, Chu-Ren Huang and Qin Lu45
Towards Better Ad Experience: Click Prediction Leveraging Sequential Networks Derive Specifically From User Search Behaviors Shengzhe Li, Tomoko Izumi, Yu Kuratake, Jiali Yao, Jerry Turner, Daisuke Kawahara an Sadao Kurohashi 46

Cantonese turn-initial particles: annotation of discourse-interactional functions in dialog corpora
Andreas Liesenfeld
Are TERRORISM and kongbu zhuyi translation equivalents? A corpus-based investigation of meaning, structure and alternative translations Lily Lim
L1 and L2 Processing of Chinese Separable VO Compounds Junghwan Maeng
Syntax and Semantics of Adjectives in Cape Verdean Creole: A View from Markedness Chigusa Morita and Miki Obata
Japanese Daily Utterance Styles: A Factor Analysis based on Balanced Corpus *Hajime Murai*
A Speaker Accent Recognition System for Filipino Language Batman Odulio, Justin Raphael Ariaso, Karl Adrian Cruz, Mico Ian Orjalo, Ramon Rodriguez, Angelica Dela Cruz and Manolito Octaviano Jr
A corpus-based investigation of collexemes for active-passive alternation in the English part of an English-Japanese parallel corpus Masanori Oya
Korean-to-Chinese Machine Translation using Chinese Character as Pivot Clue Jeonghyeok Park and Hai Zhao
Adapting Neural Machine Translation for English-Vietnamese using Google Translate system for Back-translation
Nghia Luan Pham and Van Vinh Nguyen
Re-unifying Floating Numeral Quantifiers and Secondary Predicates in Japanese Hideaki Yamashita