**VOLUME 1** 

# DATA SCIENCE IN COLLABORATION

Linguistics

LANGUAGE

Technology

Industry

YUICHI ONO Masaharu shimada

### Y. Ono & M. Shimada (Eds.)

Data Science in Collaboration, Volume 1. Tsukuba: General Affairs Supporting Center.

### Copyright 2017 Yuichi Ono Lab

All rights reserved. No part of this book may be reproduced, stored in a retrieval system, transmitted, in any forms or any means, without the prior permission of Yuichi Ono Lab. Individual papers may be uploaded on to institutional repositories or other academic sites for self-archival purposes.

ISBN: 978-4-9910001-0-2

Publisher

Department of General Affairs Supporting Center, University of Tsukuba, Japan

1-1-1, Tennoudai, Tsukuba, Ibaraki, 305-8577, Japan

# **Editors**

Yuichi ONO
Associate Professor of Faculty of Human Sciences and Social Sciences
University of Tsukuba

Masaharu SHIMADA
Associate Professor of Faculty of Human Sciences and Social Sciences
University of Tsukuba

## **Authors**

(in alphabetical order)

Akari HIRANO, Graduate Student, University of Tsukuba, Japan Akihiko SAKAMOTO, Tokiwa University, Japan Barry KAVANAGH, Tohoku University, Japan Brendan FLANAGAN, Kyoto University, Japan Haruki ISONO, Graduate Student, University of Tsukuba, Japan Hiroko WAKAMATSU, Graduate Student, University of Tsukuba, Japan Kazuyoshi ISHIKAWA, Graduate Student, University of Tsukuba, Japan Kosuke KURODA, Graduate Student, University of Tsukuba, Japan Masaki YASUHARA, Ibaraki University, Japan Masatoshi HONDA, Graduate Student, University of Tsukuba, Japan Ryohei NAYA, Graduate Student, University of Tsukuba, Japan Shiori SUNAKAWA, Undergraduate Student, University of Tsukuba, Japan Shohei NAGATA, Graduate Student, University of Tsukuba, Japan Shotaro NAMIKI, Graduate Student, University of Tsukuba, Japan Shun MORIMOTO, Tokiwa University, Japan Shuto YAMAMURA, Tsukuba University, Japan Souma MORI, Graduate Student, University of Tsukuba, Japan Takashi ISHIDA, Graduate Student, University of Tsukuba, Japan Takeshi KATO, Graduate Student, University of Tsukuba, Japan Tatsuhiro OKUBO, Ibaraki Prefectural University of Health Sciences, Japan Yoji IGARASHI, Undergraduate Student, University of Tsukuba, Japan Yukihiro KANDA, Graduate Student, University of Tsukuba, Japan

# **Message from Editors**

On behalf of the editorial board, we would like to express my greatest gratitude to all the people to have contributed to the publication of the first volume of "Data Science and Collaboration (DaSiC)" in 2017. The year 2017 marks a milestone for us as we started two important academic meetings ahead of this publication; one is Tsukuba Morphology Meeting 2017 (TMM2017) (<a href="http://www.lingua.tsukuba.ac.jp/eigogaku/TMM%202017%20programme.pdf">http://www.lingua.tsukuba.ac.jp/eigogaku/TMM%202017%20programme.pdf</a>) and the other is the subconference focusing on language of Tsukuba Global Science Week 2017 (TGSW2017) (<a href="https://sites.google.com/view/tgsw2017language">https://sites.google.com/view/tgsw2017language</a>). In both of the meetings, there are a clear purpose of breaking through a barrier which, quite occasionally, impede collaborations among research fields or even within a single research field, as well as broaden our perspectives of linguistic research.

Especially in the second meeting, the main theme was "to cross over the academic barriers and enhance collaboration and communication", which is an essential factor to promote an interdisciplinary academic research. This conference might be a small start for this big dream, but I am quite confident now that the approach is highly promising in the near future. One of the biggest facts was that a great many of young researchers and undergraduate and graduate students participated in the conference as presenters in this first conference. We believe that this conference will provide an inspiration and motivation for their future research. Again, we would like to express my greatest gratitude to all the participants in the conference, Keynote speakers: Prof. Sachin Hirokawa (Kyushu University) and Prof. Emiritus Hiroyuki Nishina (Saitama University); Invited speakers: Dr. Jun Hiroshima (Cookpad Inc.), Prof. George MacLean (University of Ryukyus), Prof. Barry Kavanagh (Tohoku University), Prof. Brendan Flanagan (Kyoto University), Prof. Ai Nakajima (Tokyo University), Prof. Michael Stout (University of Tsukuba), Prof. Shuto Yamamura (University of Tsukuba); and all the presenters of Poster session. Special thanks also go to all the participants who took the time to come all the way to the venue to share the knowledge on language and technology.

This book is a collection of such inspiring and pioneering papers that were presented at the conference with a slight modification or extension depending on author's purpose. Undergraduate and graduate students as well as leading young researchers discuss the topic of language from an engineering, linguistic, or pedagogical point of view.

We make a proposal for TGSW2018@Tsukuba which will be held in September 2018. We plan to publish DaSiC (Volume 2) in 2018 as a post conference publication. We hope that the participants will be back to the second conference again!

Editors: Yuichi ONO Masaharu SHIMADA

# **Table of Contents**

	Paper Title	Authors	Page
•	Text Mining to Support Foreign Language Learning	Brendan FLANAGAN	1
•	Issues in Conducting Collaborative Learning in the Classroom for Dyslexic Learners of English in Japan: Preliminary Research	Akari HIRANO	11
•	Emphatic Information Focus in the Clausal and Nominal Domains: A Case Study of Polarity Focus	Masatoshi HONDA	16
•	A Relevance-theoretic Analysis of English Jokes	Yoji IGARASHI	26
•	Chromaticity in Poetry: The Effect of Colour Terms in D. H. Lawrence's Rhyming Poems	Takashi ISHIDA	36
•	A Frame-Constructional Approach to Synaesthetic Metaphors in English	Takashi ISHIDA & Shotaro NAMIKI	47
•	A Review Study on Instrument Subjects	Kazuyoshi ISHIKAWA & Hiroko WAKAMATSU	57
•	On the Opaqueness of English Complex Verbs	Haruki ISONO	67
•	Pseudo-Raising and Its Implications for Linguistic Theory: A Preliminary Study	Yukihiro KANDA & Masatoshi HONDA	72
•	Complexity and Fluency Indices in Assessing Japanese EFL Learners' Writing	Takeshi KATO	82
•	Polite Intention through Emoticon Usage in a Cross-cultural Examination of Japanese and American Online Discourse	Barry KAVANAGH	89
•	On the Expressiveness of the Definite Article in English	Kosuke KURODA	99
•	An Analysis on Canonical-Pattern Conditionals	Souma MORI	109

•	The Acquisition of the Constructional Possibilities of "Get" by Japanese Learners	Shun MORIMOTO	115
•	The Apparent Category-Changing Function of Prefixes in English: A Preliminary Study of "Adjectivalizing" Prefixes	Ryohei NAYA	125
•	What are the Similarities and Differences Between VP Ellipsis and VP Preposing?	Shohei NAGATA	135
•	A Distributed Morphology Approach to a Hybrid of a Phrase and a Word	Tatsuhiro OKUBO	147
•	Rhetorical Question Formation in Japanese and English	Akihiko SAKAMOTO	155
•	An Auditory Writing Support System for Japanese EFL Braille Users	Shiori SUNAKAWA	165
•	A Corpus-based Study of Prenominal Adjectives in Old English	Shuto YAMAMURA	171
•	Secondary Agent Constructions from the Perspective of the Motion Inherent to Manner-of-Action	Masaki YASUHARA	180