

MRL 2021

**The 1st Workshop on
Multilingual Representation Learning**

Proceedings of the Conference

November 11, 2021

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Message from the General Chair

Multilingual representation learning methods have recently been found to be extremely efficient in learning features useful for transfer learning between languages and demonstrating potential in achieving successful adaptation of natural language processing (NLP) models into languages or tasks with little to no training resources. On the other hand, there are many aspects of such models which have the potential for further development and analysis in order to prove their applicability in various context. These contexts include different NLP tasks and also understudied language families, which face important obstacle in achieving practical advances that could improve the state-of-the-art in NLP of various low-resource or underrepresented languages.

The aim of this workshop is to form the first research community in multilingual representation learning providing the rapidly growing number of researchers working on the topic with a means of communication and an opportunity to present their work and exchange ideas. The main objectives of the workshop are constructing and presenting a wide array of multilingual representation learning methods, including their theoretical formulation and analysis, practical aspects such as the application of current state-of-the-art approaches in transfer learning to different tasks or studies on adaptation into previously under-studied context; providing a better understanding on how the language typology may impact the applicability of these methods and motivate the development of novel methods that are more generic or competitive in different languages; and promoting collaborations in developing novel software libraries or benchmarks in implementing or evaluating multilingual models that would accelerate progress in the field.

The proceedings presents the collection of original research contributions submitted by various and greatly diverse parts of the community which advance the conventional approaches to understanding and implementing multi-lingual representation learning methods, immediately extending their applicability as well as proposing previously unexplored ideas. As the organizing committee we are deeply grateful to the engagement and response from the community and hope to continue to foster the collaborative environment the workshop achieves at its first organization.

Message from the Program Chairs

Having been organized for the first time in an emerging area of cutting-edge research, the Workshop on Multilingual Representation Learning has received a large amount of interest from the community, with 56 submissions to the program. 50 of these submissions were long papers describing original research and 6 presented ongoing or previously published work in the form of extended abstracts. Our program committee consisted of 55 experts in the area from all over the world, conducting research in the industry as well as academia. The committee worked throughly on every submission and selected 19 research papers and 5 extended abstracts to be presented at the workshop. We are glad to present our proceedings gathering the products of a great collaborative effort which we hope will inspire many new ideas to be presented at future events of our workshop with increasing capacity in the years to come.

Organizing Committee

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Alexandra Birch, University of Edinburgh
Alexis Conneau, Google
Orhan Firat, Google
Sebastian Ruder, Deepmind
Gozde Gul Sahin, TU Darmstadt

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Genta Indra Winata, Bloomberg
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Biao Zhang, University of Edinburgh

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Conference Program

Thursday November 11, 2021

10:00–10:30

Language Models are Few-shot Multilingual Learners

Genta Indra Winata, Andrea Madotto, Zhaojiang Lin, Rosanne Liu, Jason Yosinski and Pascale Fung

10:30–11:00

Learning Contextualised Cross-lingual Word Embeddings and Alignments for Extremely Low-Resource Languages Using Parallel Corpora

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14:15–14:45

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