

Multi3Generation COST Action 18231

Outline

Aims

Challenges

Working
Groups

Grants

Training
Schools

Deliverables

Projects

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Multi3Generation Workshop @ CNLPS – FedCSIS 2023
Warsaw University of Technology
20 September 2023



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- ▶ Foster an interdisciplinary network of research groups working on distinct aspects of language generation (LG) with an emphasis on any combination of the following
 - ▶ multilingual models
 - ▶ multitask learning
 - ▶ multimodal uses – a variety of methods to process and generate written and spoken language, images, video, audio, sign language, etc.

COST Action Management Committee



COST Action CA18231,
Multi3Generation: Multi-task, Multilingual, Multi-modal Language Generation (Multi3Generation)

<https://www.cost.eu/actions/CA18231/>

List of MC participants

Number of COST members represented: 33

#	CTRY*	Title	Firstname	Lastname	Group	Position	Email	
1	PT	Dr	Anabela	Barreiro	MC Members	MC Chair	anabela.barreiro@inesc-id.pt	INESC-ID
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5	DE	Mr	Jakob	Suchan	MC Members	MC Member	suchan@uni-bremen.de	Systems Engineering for Future Mobility
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Action Details

- MoU - 048/19
- CSO Approval date - 04/06/2019
- Start date - 09/09/2019
- End date - 08/09/2023

<https://multi3generation.eu/>

How can I participate?

- Read the Project Description [How](#)
- Inform the Main Proposer/Chair of your interest ([email](#))
- [Apply](#) to join your Working Groups of Interest
- Please note, Management Committee nominations are carried out through the [COST National Contact Points](#)

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- ▶ Data and information representation challenges (images, videos, knowledge bases, graphs, among others)
- ▶ Machine Learning (ML) challenges when applied to LG: inputs to be mapped to different correct outputs (e.g. structured prediction and representation learning)
- ▶ Interaction: applications challenges to LG (e.g. Dialogue Systems, Conversational Search Interfaces and Human-Robot Interaction)
- ▶ Knowledge Base (KB) exploitation: structured knowledge is key to many NLP tasks, including LG, supporting ML methods that require expansion, filtering, disambiguation or user adaptation of generated content

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- ▶ WG 1 – Grounded multi-modal reasoning and generation
- ▶ WG 2 – Efficient Machine Learning algorithms, methods, and applications to language generation
- ▶ WG 3 – Dialogue, interaction and conversational language generation
- ▶ WG 4 – Exploiting large knowledge bases and graphs
- ▶ WG 5 – Industry and End-User Liaison

Outline

Aims

- ▶ Inclusiveness Target Countries (ITC) Conference Grants

Challenges

<https://multi3generation.eu/funding-opportunities/itc-grants/>

Working Groups

- ▶ Short-Term Scientific Missions (STSM)

Grants

<https://multi3generation.eu/funding-opportunities/short-term-scientific-missions/>

Training Schools

- ▶ Training Schools

Deliverables

<https://multi3generation.eu/category/events/training-schools/>

Projects

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M3G COST Action Training School on Creative Natural Language Generation

24 JUNE 2022

The Multi3Generation COST Action (www.multi3generation.eu) aims at promoting interdisciplinary research in Natural Language Generation, combining computationally-oriented methodology with theories and insights from the humanities (computational ...

[READ MORE >](#)



Training School – Representation Mediated Multimodality

5 MAY 2022

Grounded Representation, Reasoning, and Learning for Interactive Interpretation
ABOUT THE TRAINING SCHOOL The training school on "Representation Mediated Multimodality" provides a consolidated perspective on the ...

[READ MORE >](#)

Outline

- ▶ Survey on Neural Natural Language Generation (NNLG)
 - ▶ A survey of recent advances in NNLG from 4 different dimensions - multilinguality - multimodality - learning strategies - controllability
- ▶ Publications
- ▶ Datasets (scarce resource languages)
- ▶ Linguistic resources (including semantic knowledge) and knowledge bases
- ▶ Analysis and revision of methods and techniques (e.g., quality estimation of spoken language, sentiment analysis, etc.)
- ▶ Application of LG models to distinct use case scenarios (e.g., conversational agents, chatbots, human-machine interaction)

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- ▶ Monolingual/multilingual paraphrase generation – Development of paraphraseries and paraphrasing applications
 - ▶ Generate paraphrases via linguistic resources; reuse paraphrases extracted from parallel texts in the context of language/literature teaching
 - ▶ Alignment tools, alignment of monolingual/multilingual paraphrases, and development of paraphraseries as the basis to develop a sophisticated paraphrasing tool for pedagogical purposes (learning to write better, or understanding a literary piece)
 - ▶ Interdisciplinary research – experts in linguistics, education (language and literature), and software development exploring the feasibility of deploying a paraphrasing platform, and reflecting on how to measure the effects of the use of the generated paraphrases before scaling

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- ▶ Digitalization of humanities
 - ▶ Research triggered by tech-merged pandemic education globally and locally
 - ▶ Development of tech language programs to support conventional in campus teaching
 - ▶ Development of new digital tools in teaching andragogy and interdisciplinary research
 - ▶ Pave the way to the new perspective of enabling end-users (academic instructors and students of humanities programs) gain digital competence in using semantic, lexical, proofreading and discourse assessment digital tools to achieve the learning goals



Thank you!



TÉCNICO LISBOA