

Tools and Resources to Empower People with **REAding** **Difficulties**

READI

Workshop Description

This workshop invites participation from individuals with experience and/or interest in natural language applications for automatic text adaptation as a device to improve reading. The general idea is to stimulate discussion of different ongoing research questions concerning solutions to leverage document accessibility. By bringing together researchers from various research communities, we aim to address the issue from different angles.

A combination of presentations in different domains will provide participants with concepts, tools and resources to further the development of the research community.

Motivation and Topics of interest

The aim of the workshop is to present current state-of-the-art techniques and achievements for text simplification together with existing reading aids and resources for lifelong learning. The materials are addressed to children struggling with difficulties in learning to read, to the community of teachers, speech-language pathologists and parents seeking solutions, but also to those professionals involved with adults struggling with reading (illiterates, aphasic readers, low vision readers, etc.).

The workshop aims to address the issue from a variety of domains and languages, including natural language processing, linguistics, psycholinguistics, psychophysics of vision and education. Topics include but are not limited to the following:

- Theoretical frameworks for text adaptation
- Resources for text adaptation (corpora, lexicons)
- Empirical validation of textual adaptations
- Assessment of text difficulty (readability)
- Complex word identification
- Generation of simple texts from textual data
- Automatic text simplification, including:
 - Lexical simplification
 - Syntactic simplification
 - Discourse simplification
- Evaluation procedures and measures in text adaptation
- Meaning representation in text adaptation
- Educational devices for reading
- ...

Summary of the call

Recent studies show that the number of children and adults facing difficulties in reading and understanding written texts is steadily growing (PIRLS 2016 (Mullis et al. 2017); Unicef 2018). Reading challenges can show up early on and may include reading accuracy, speed, or comprehension to the extent that the impairment interferes with academic achievement or activities of daily life.

Various technologies (text customization, text simplification, text to speech devices, screening for readers through games and web applications, to name a few) have been developed to help poor readers to get better access to information as well as to support reading development (McNamara 2007; Gasparini & Culén 2012; Rauschenberger et al. 2019). Among those technologies, text simplification (Siddarthan 2014; Saggion 2017) might be a powerful way to leverage document accessibility by using NLP techniques. The idea is not to impoverish written language but to propose simplified versions of a given text that convey the exact same meaning.

Adapting a text will allow people with reading difficulties to eventually get through a text and thus discover the pleasure of reading through understanding what they read. This will allow them to enter a virtuous circle, whereby word recognition and decoding skills are trained through reading more. The promise of this enterprise is that training readers on simpler texts will lower their give-up threshold and improve their decoding, word recognition and comprehension skills, which ultimately would allow them to move on to more complex texts.

In this workshop, in line with other workshops such as Automatic Text Adaptation (ATA 2018) at INLG¹, tutorials at RANLP and COLING² or more wide area conferences such as ASSETS³, we aim to address the topic through different points of view, going from the psycholinguistic insights of reading impairments to better tackle the problem, to natural language techniques for building tools and resources, and to educational issues regarding the use of adapted material individually, in the classrooms or in other remediation spaces.

The workshop will act as a stimulus for the discussion of several ongoing research questions driving current and future research by bringing together researchers from various research communities involved with tackling difficulties in reading.

Share your LRs!" initiative

When submitting a paper from the START page, authors will be asked to provide essential information about resources (in a broad sense, i.e. also technologies, standards, evaluation kits, etc.) that have been used for the work described in the paper or are a new result of your research. Moreover, ELRA encourages all LREC authors to share the described LRs (data, tools, services, etc.) to enable their reuse and replicability of experiments (including evaluation ones).

¹ International Conference on Natural Language Generation, <https://www.ida.liu.se/~evere22/ATA-18/>

² Data Driven Text Simplification, <http://taln.upf.edu/pages/coling2018simplification/>

³ ASSETS is a « forum for presenting research on the design, evaluation, use, and education related to computing for people with disabilities and older adults » <https://assets19.sigaccess.org/>

Paper Submission Instructions

Paper Length: submissions are expected to be **between a minimum of 4 and a maximum of 8 pages in length, references included.**

Submission Format: please check LREC author's kit page for more details. Papers that do not conform to these requirements will be rejected without

Important Dates :

- submission deadline: **February 14, 2020**
- notification of acceptance: **March 13, 2020**
- deadline for camera-ready versions: **April 3, 2020**
- workshop : **May 11 am.**

Organizing Committee

Delphine Bernhard	Université de Strasbourg, France
Thomas François	Université catholique de Louvain, Belgium
Núria Gala	Aix Marseille Université, France
Daria Goryachun	Aix Marseille Université, France
Ludivine Javourey-Drevet	Aix Marseille Université, France
Anne Laure Ligozat	Université Paris Sud, France
Amalia Todirascu	Université de Strasbourg, France
Rodrigo Wilkens	Université de Strasbourg, France
Johannes Ziegler	Aix Marseille Université, France

Program Committee

Delphine Bernhard	Université de Strasbourg, France
Dominique Brunato	ILC, Pisa, Italy
Eric Castet	Aix Marseille Université, France
Cédric Fairon	Université catholique de Louvain, Belgium
Thomas François	Université catholique de Louvain, Belgium
Núria Gala	Aix Marseille Université, France
Arne Jönsson	Linköping University, Sweden
Ekaterina Kochmar	University of Cambridge, UK
Anne Laure Ligozat	Université Paris Sud, France
Detmar Meurers	Université de Tübingen, Germany
Horacio Saggion	Université Pompeu Fabra, Catalonia, Spain

Sanja Stajner	Symanto Research, Germany
Anaïs Tack	Université catholique de Louvain, Belgium
Amalia Todirascu	Université de Strasbourg, France
Vincent Vandeghinste	Instituut voor de Nederlandse Taal (Dutch Lge. Institute), Belgium
Giulia Venturi	ILC, Pisa, Italy
Aline Villavicencio	University of Sheffield, United Kingdom
Elena Volodina	University of Gotheburg, Sweden
Rodrigo Wilkens	Université de Strasbourg, France
Johannes Ziegler	Aix Marseille Université, France

Contact person nuria.gala@univ-amu.fr

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