Accessibility describes the degree to which a product, device, service or environment is usable for as many people as possible, including persons with disabilities. This can be achieved either by designing products and services that are directly usable for all, that are adaptable to different users or that are compatible with special aids for persons with disabilities through standard interfaces.

Augmentative and Alternative Communication (AAC) and Assistive Technologies (AT) are umbrella terms for technologies and techniques aimed at aiding people with disabilities in interacting with their environment in order to communicate with others and to accomplish a variety of tasks. In particular, AAC is focused on multi-modal communication, including technologies for those who cannot rely on natural speech and/or writing as their primary means of expression. From providing access to web-based communication for individuals with severe motor impairments, to improving the intelligibility of output in speech generating devices, the range of AAC topics that could or should rely on speech and natural language processing (NLP) technologies is very large, and the number of individuals actively working within the two research communities – AT/AAC on the one hand and speech/NLP on the other – is growing, as evidenced by the successful workshops on this topic at HLT-NAACL 2010 in Los Angeles and at EMNLP 2011 in Edinburgh.

Submissions must not have been previously published, although substantial extensions of conference or workshop papers will be considered. Topics of interest for submission to the special issue include (but are not limited to):

- Automated processing of sign language
- Speech synthesis and speech recognition for physical or cognitive impairments
- Speech transformation for improved intelligibility
- Translation systems; to and from speech, text, symbols and sign language
- Novel modeling and machine learning approaches for AT applications
- Text processing for improved comprehension, e.g., sentence simplification or text-to-speech
- Silent speech: speech technology based on sensors without audio
- Symbol languages, sign languages, nonverbal communication
- Dialogue systems and natural language generation for assistive technologies
- Multimodal user interfaces and dialogue systems adapted to assistive technologies
- NLP for cognitive assistance applications
- Presentation of graphical information for people with visual impairments
- Speech and NLP applied to typing interface applications
- Brain-computer interfaces for language processing applications
- Speech, natural language and multimodal interfaces to assistive technologies
- Assessment of speech and language processing within the context of assistive technology
- Web accessibility; text simplification, summarization, and adapted presentation modes such as speech, signs or symbols
- Deployment of speech and NLP tools in the clinic or in the field
- Linguistic resources; corpora and annotation schemes
Submission Instructions
Manuscript submissions shall be made through the Elsevier Editorial System (EES) at http://ees.elsevier.com/csl/
Once logged in, click on “Submit New Manuscript”; then select “Special Issue: Speech Proc. & NLP for AT” in the “Choose Article Type” dropdown menu.

Important dates
Submission deadline: January 22, 2012
First reviews back: April 22, 2012
Revised submission deadline: June 22, 2012
Notification of acceptance: August 1, 2012
Final manuscripts due September 1, 2012
Tentative publication date: December, 2012

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