

Introduction to the Special Issue on ASSETS'20

We are pleased to present nine articles that are extended versions of conference papers presented at the 21st International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'19), which was held online between October 24–26, 2019. Authors of several top papers from the conference submitted manuscripts for consideration, which underwent a full review process for ACM's **Transactions on Accessible Computing (TACCESS)**. The guest editors for this issue are Georgios Kouroupetrou (National and Kapodistrian University of Athens, Greece) and Hugo Nicolau (Interactive Technologies Institute, University of Lisbon, Portugal). The guest editors thank the authors for their excellent submissions, and they also thank all of the journal reviewers who contributed their time and expertise to this process.

The first article, [Comic Spin: A Comic Creation Tool Enabling Self-Expression for People with Aphasia](#), describes the design and exploration of an app for people with aphasia to express humour and emotion through the creation of comic strips by constraining the creative space. Findings show that people successfully create a range of narrative, humorous and subversive comic strips, enabling them to self-express in ways beyond the comic strips' content.

The second article, [Inclusive Improvisation: Exploring the Line between Listening and Playing Music](#), presents two case studies of a gestural Digital Musical Instrument that can foster inclusive music-making. The results indicate that understanding the needs of players and customising the system-based movement to sound mappings is of far greater importance in making the instrument accessible.

The third article, [Understanding How Sensory Changes Experienced by Individuals with a Range of Age-Related Cognitive Changes can Effect Technology Use](#), investigates the gap between the clinical knowledge of sensory changes people with age-related cognitive changes experience and technology research. The results show ways to leverage optimal modes of sensory interaction for accessible technology use with existing and emerging technologies.

The following article, [Shared Privacy Concerns of the Visually Impaired and Sighted Bystanders with Camera Based Assistive Technologies](#), investigates the concerns of both bystanders and people with visual impairments with camera-based technologies. This work characterizes a range of AI-related concerns and provides directions for future work in the development of such technologies while mitigating ethical concerns.

The fifth article, [AIGuide: Augmented Reality Hand Guidance in a Visual Prosthetic](#), describes a self-contained smartphone application to help users locate and pick up objects around them. Evaluations with people with visual impairments illustrate the potential of the AIGuide to help people locate and acquire objects in their daily routine.

The sixth article, [Traveling more Independently: A Study on the Diverse Needs and Challenges of People with Visual or Mobility Impairments in Unfamiliar Indoor Environments](#), establishes diverse information needs, when planning and executing a trip, between and within user groups.

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Results show a large information gap, especially for orientation in buildings, regarding the availability of indoor maps, accessibility of buildings and mobility supporting systems.

The next article, [Customizable Tabular Access to Web Data Records for Convenient Low-Vision Screen Magnifier Interaction](#), presents TableView+, a personalizable browser extension that improves interaction with web pages for screen magnifier users. Results show that the tool significantly reduces panning time while improving overall usability and users' workload.

The eighth article, [Privacy Concerns for Visual Assistance Technologies](#), examines privacy issues for blind people who share personal visual data with companies that provide descriptions authored by humans or artificial intelligence. The findings have implications for the development of visual assistance technologies that safeguard blind users' visual privacy as well as, more broadly, camera-based technology companies.

The ninth article, [Reading-Assistance Tools Among Deaf and Hard-of-Hearing Computing Professionals in the U.S.: Their Reading Experiences, Interests and Perceptions of Social Accessibility](#), investigates the reading needs and interests of Deaf and Hard-of-hearing individuals working in the computing field for **Automatic Text Simplification (ATS)**-based reading assistance tools. The results provide insights into certain design considerations for ATS-based reading tools.

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