Editorial from the Editors-in-Chief

The previous year has presented unprecedented challenges for everyone. The COVID-19 pandemic has simultaneously shown how fragile and resilient humans and our societies are. Although our lives have been seriously affected by it, we also have seen incredible responses in many aspects of our day to day. Particularly, the response of the scientific community to this crisis was incredible in several ways. For example, in a couple of months, several vaccines were produced, building on decades of past research.

Regarding accessibility, we also witnessed how fragile our current systems are, and how resilient our communities are being. Despite decades of technical efforts, advocacy, and policy changes, in a period of crisis, responses and systems were mostly inaccessible. Jonathan Lazar, in his ACM ASSETS 2020 keynote, gave a wide variety of examples where the need for an immediate response completely ran over the need for inclusion. Examples are the several inaccessible visualization dashboards and inaccessible signage, among many others. Like other domains of science, accessibility researchers and communities reacted and built upon decades of work to fix the accessibility of such systems, responses, and the *new normal*.

Let us take this as a lesson about the frailty of our systems and, besides the needed technical advances, continue to foster accessibility advocacy, policy, and particularly education. Only by doing so, can we hope that on the cusp of another crisis, fairness, inclusion, and equity will be systemic.

The healthy number of submissions to *ACM Transactions on Accessible Computing* (TACCESS) over the past year has shown the resilience of the accessibility community. Reflecting this strength, we present the first issue of 2021. We are pleased to present the four articles that have been accepted for this issue of TACCESS. These articles represent the diversity of scholarship that readers come to expect from the journal. In addition to editors Tiago Guerreiro (Universidade de Lisboa) and Stephanie Ludi (University of North Texas), the associate editors who worked on this issue are Enrico Pontelli (New Mexico State University), Markel Vigo (University of Manchester), and Gerhard Weber (Technische Universität Dresden). The reviewers for these papers represented the broad range of expertise needed both in terms of the technical and accessibility background required to evaluate the papers through the process.

The first article, “[A Longitudinal Evaluation of Tablet-Based Child Speech Therapy with Apraxia World](#),” presents a long-term, counterbalanced study with 10 children who receive speech therapy. The study evaluates their Apraxia World speech therapy game with the children in terms of pronunciation improvement, engagement, and automated pronunciation evaluation accuracy over time.

The second article, “[Echolocation as a Means for People with Visual Impairment to Acquire Spatial Knowledge of Virtual Space](#),” presents a two-part within-subjects experiment with 12 people who were blind or had a visual impairment to determine whether echolocation could be

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used as a tool to convey spatial information in a virtual space. The results indicated that design aspects such as the size and materials of rooms, as well as the use of 90-degree turns, were detectable through echolocation. In addition, participants preferred using echoes derived from footsteps rather than from artificial sounds, and echolocation supported the acquisition of mental maps of a virtual space.

The third article, “[Evaluation of the Use of Real-Time 3D Graphics to Augment Therapeutic Music Sessions for Young People on the Autism Spectrum](#),” presents the evaluation of the effectiveness of CymaSense, a real-time 3D visualization application, as a means of improving the communicative behaviors of autistic participants through the addition of a visual modality within therapeutic music sessions. Results showed an increase in communicative behavior, for both verbal and non-verbal participants, resulting from the use of CymaSense

The fourth article, “[Melodie: A Design Inquiry into Accessible Crafting Through Audio-Enhanced Weaving](#),” presents an iterative design process that includes field studies in the development of an audio-enhanced loom to support weaving to increase access to crafting for persons with visual impairments. The design process includes 60 hours of field observations at the weaving studio and 15 interviews with both residents and instructors within the studio community. The design process for the loom, named *Melodie*, revealed several scenarios to support use by members of the community.

We thank the associate editors involved in this issue and the reviewers for their time, effort, and expertise to this process. Last, we would like to thank the authors for their excellent submissions.

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Editors-in-Chief