

Digital Communication Technologies, Deaf and Hard-of-Hearing Identity, and Social Participation: Implications for Educational Equity and Inclusion

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This study examines how digital communication technologies shape the identity formation and social participation of Deaf and hard-of-hearing people in Lithuania. It focuses on digitally mediated interaction, accessibility, communication choices, and belonging, asking how technologies transform relations within Deaf communities and between Deaf, hard-of-hearing, and hearing people. Digital communication technologies have become central to contemporary social life, education, work, and everyday interaction. For Deaf and hard-of-hearing people, their significance cannot be reduced to technical access alone. Video calls, messaging platforms, social media, automatic captioning, speech-to-text applications, and AI-based tools reshape the conditions under which communication, identity, and participation become possible. They may reduce barriers to spoken communication, create spaces for sign-language visibility, and enable more flexible participation. At the same time, they may reproduce inequalities when access depends on digital literacy, economic resources, institutional support, or the quality of captioning and interpreting services.

The purpose of this study is to analyze how Deaf and hard-of-hearing people experience modern communication technologies in constructing identity and participating in social life. The study asks how technologies mediate relationships with Deaf communities, hearing society, educational institutions, workplaces, and public spaces. Rather than treating technology as a neutral tool, the research approaches it as a socially embedded mediator of communication, recognition, belonging, and power.

The Lithuanian context is important because Lithuanian Sign Language has its own historical, cultural, and institutional trajectory, while Deaf and hard-of-hearing people follow different educational, linguistic, and social pathways. Some identify strongly with Deaf culture and sign language; others orient themselves toward spoken Lithuanian, cochlear implants, hearing technologies, or mixed communication practices. Digital technologies enter this complex field of linguistic and cultural negotiation. The study, therefore, contributes to debates on educational equity and inclusion by showing that inclusion is not achieved merely through technological access. It also requires attention to language, identity, cultural recognition, and lived communication experience.

The study is based on a qualitative, interpretivist research design. It draws on semi-structured interviews with Deaf and hard-of-hearing participants in Lithuania, focusing on their lived experiences

of communication, identity, technology use, and social participation. The interviews elicit narratives about everyday communication practices rather than only general opinions about technology. Participants discuss experiences in family life, education, work, friendships, public institutions, social media, and encounters with hearing people.

The study also incorporates elements of visual and digital qualitative inquiry. Photovoice-inspired tasks are used to encourage participants to reflect on images, digital environments, or everyday communication situations that represent inclusion, exclusion, connection, or misunderstanding. This method is used not as full participatory action research, but as a complementary elicitation strategy. The study also examines publicly visible digital communication practices, such as social media posts, video-based communication, comments, and online community expression, while exercising ethical caution regarding anonymity, consent, and recognizability.

The study argues that digital communication technologies have a double significance for Deaf and hard-of-hearing people. First, they expand possibilities for participation. Video communication can support sign-language interaction across distance; messaging can reduce dependence on spoken conversation; captioning and speech-to-text tools can facilitate access to information; and social media can create spaces for visibility, community-building, and self-representation.

Second, digital communication does not automatically produce inclusion. Technologies often work unevenly. Automatic captioning may be inaccurate, especially in smaller languages or noisy environments. Video communication may privilege those with stable internet access, visual literacy, and confidence in sign or spoken communication. Social media may increase visibility but also expose users to misunderstanding, paternalism, audism, or pressure to adapt to hearing norms.

A key emerging theme is that technology mediates identity, not only access. Digital environments allow Deaf and hard-of-hearing people to move between sign-language communities, hearing-majority spaces, educational institutions, workplaces, and hybrid online publics. These movements may strengthen agency and belonging, but they may also intensify ambivalence, especially when communication practices are mixed, technologically assisted, or shaped by cochlear implantation and spoken-language education.

The findings suggest that inclusive education requires communicative justice: recognition of sign language, respect for diverse Deaf and hard-of-hearing identities, reliable access to interpretation and captioning, and institutional understanding of how digital communication functions in everyday life. Technologies can support inclusion only when embedded in broader social, linguistic, and pedagogical commitments.