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Children as Design Partners: Digital Media, Learning Analytics, and Metacognition

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Abstract

Children may participate in the design of digital technologies as users, testers, informants, and design partners (Druin, 2002). Yet, more often than not, teachers, researchers, and engineers are design partners, while children remain as mere users and testers (Krumm, Means, & Bienkowski, 2018). This paper explores how children are designers of digital artifacts and learning analytics on an online platform called Knowledge Forum (Scardamalia & Bereiter, 2021). Eight children participated in a group interview to reflect on their online notes and drawings from grade 1 to grade 6, using the analytic tools to mine developmental patterns in their online discourse (e.g., vocabulary growth, diversity and complexity of ideas). Implications of this work are discussed by extending Druin's framework to consider children's roles in simultaneously improving usability, augmenting the impact of technology on their learning, and the advancement of learning theories within the context of hybrid learning in a post-pandemic world.