Human–Computer Interaction and the Formation of Youth Civic Engagement on Social Media: A Phenomenological Study in the Age of AI Algorithms

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Abstract. The development of social media has changed the patterns of youth civic engagement, particularly through the role of algorithms that regulate the distribution and visibility of political information. However, studies on how algorithms are understood and experienced directly by young people from a Human–Computer Interaction (HCI) perspective are still limited. This study aims to analyze how social media algorithms shape young people's attention, emotions, and civic learning processes in the digital space. This study uses a qualitative approach with a constructivist design. Data were collected through in-depth interviews with 20 young people aged 17–25 who actively use social media to access and disseminate political content. Data analysis was conducted using NVivo software through the stages of open coding, axial coding, and selective coding. The results of the study show three main findings. First, social media algorithms shape young people's attention through automatic recommendations and repetition of certain political content. Second, algorithms reinforce affective engagement, which has the potential to drive polarization of opinion. Third, social media also functions as a space for informal civic learning through interaction with educational content and online discussions. This study confirms that algorithms play an important role in shaping young people's digital citizenship practices, thus requiring the strengthening of algorithm literacy and more accountable platform design to support healthy democratic participation.

Keywords: digital civic engagement; social media; algorithms; human–computer interaction