

When Technology Meets Psychology: Age as a Key to Self-Esteem in IoT and Remote Work

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ABSTRACT

The rapid expansion of digital technologies has reshaped everyday experiences, raising important questions regarding their psychological impact. This study investigated the mediating role of age in the relationship between Internet of Things (IoT) use, remote work/online school, and self-esteem, measured with the Rosenberg Self-Esteem Scale. Crosssectional data were gathered from Romanian participants across a wide adult age range, reporting daily frequency of IoT engagement and hours spent in remote work or online school. Mediation analyses were conducted using Jamovi (GLM Mediation Model). Results revealed that IoT use exerted a significant negative total effect on self-esteem ($\beta = -0.184$, p = .007). This association was explained both indirectly through age ($\beta = -0.059$, p = .019) and directly at a marginal level ($\beta = -0.125$, p = .058). Higher IoT use was associated with younger age (β = -0.181, p = .008), and younger participants reported lower self-esteem (β = 0.326, p < .001). In contrast, remote work/online school displayed a significant positive total effect on selfesteem ($\beta = 0.142$, p = .039), with a marginal indirect path through age ($\beta = 0.044$, p = .065). Older individuals reported greater engagement in remote work/online school ($\beta = 0.136$, p = .047), and higher age predicted higher self-esteem. These findings emphasize the central role of age in understanding the psychological outcomes of technology use, suggesting that IoT may be a risk factor for diminished self-esteem among younger individuals, whereas remote work and online school may serve as protective factors in older populations.

Keywords: adulthood; digitalization; mediation; mental health; self-esteem