Correcting behavioural biases in screen time use

Extended abstract

Smartphone use has been on the rise, and research focusing on targeting unproductive screen time use has gained traction in recent years; considering the evidence suggesting that digital technologies are addictive and can have potentially adverse effects upon prolonged exposure. This paper attempts to add to the extant literature on experimental interventions that target excessive smartphone use.

Through a conceptual framework, I first explore the consumption of screen time through the lens of reference dependent preferences, where an individual's consumption decisions are affected by the perceived reference point which in turn is influenced by peer behaviour. I extend this theory to the consumption of screen time use and argue that for such choices where peer behaviour is less tangible, it becomes difficult to determine a reference point. This further precludes individuals from ascertaining how their consumption compares against peers, implying there may be a scope for misperceptions. Using a pre-registered online experiment, I study how individuals respond to a randomized intervention where such misperceptions are corrected.

I find that individuals (i) form inaccurate beliefs about the screen time habits of their peers, (ii) misperceive their relative position in the distribution, (iii) on an average, correcting misperceptions through social comparisons significantly reduces daily average screen time use. These results are primarily influenced by responses from participants who were informed that their screen time use is higher than their self-perceived relative placement among their peers. Notably, this reduction is driven solely by behavioural motives, as the intervention is devoid of any financial incentives to curtail screen time use. Additionally, studying the relationship between screen time use and academic achievements shows suggestive evidence of a reduction in smartphone screen time being associated with an improvement in academic grades.