A Gaussian Process Model for Capturing Digital Inequality in Mobile App Usage Over a Long Period of COVID-19

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Abstract

This study proposes a Gaussian process model to capture "digital inequality" of mobile app usage over a long period of the COVID-19 pandemic. The authors apply the model to unique mobile app usage data from January 2020 to March 2021, covering three waves of the COVID-19 pandemic in South Korea. They find that COVID-19 alleviated inequality in mobile technology usage as the pandemic was developing for more than a year. Their analysis also discovers a factor that may mitigate such digital inequality, namely, habit formation. This study offers important implications for public-policy-makers and businesses to prepare for the post-pandemic era.

Subject Areas: *Information Processing, Information Systems, Market Analysis and Response*

Track: Methods, Modelling & Marketing Analytics