Tracking Keys in COVID Tracking Apps

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University of Dublin, Trinity College, 2024

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Digital contact tracing apps were a common tool for combating the spread of COVID-19 on a national scale, but their true efficacy in the wake of the pandemic is still unclear. The most prominent framework used, Google/Apple Exposure Notification (GAEN), employed a decentralised solution involving the exchange of cryptographic identifiers (TEKs) between users' devices to identify infectors and notify infectees; but despite mass adoption in dozens of apps, along with international backend networks for sharing TEKs across countries (as in Europe), there is still a lack of research data to support in-depth large-scale evaluations of this system. This project adapts a previous multi-year survey of TEKs from 32 regions into a concise yet comprehensive database, by tracking and processing all unique TEK instances throughout the survey. The final database is easily queriable for insights into TEK metadata differences between regions, as well as for tracking individual TEKs across space and time—revealing many intriguing possible avenues of analysing GAEN's ultimate effectiveness.