Contact tracing

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Context

- Contact tracing is crucial for fighting COVID-19 pandemic
- Traditional contact tracing:
 - Human operators collect and inform contacts of positive people
 - Complex with highly contagious diseases
 - System failures have potentially high impact
- Contact tracing apps:
 - Available hardware used to detect and classify contacts
 - Dependent on several parameters and adoption
 - Dedicated wearables are being developed



Personal dissertation

- Discussion on contact tracing apps focused on centralized vs. decentralized approach
- Scarcely adopted by population:
 - BLE has possibly high consumption and low accuracy
 - Bad communication and high scepticism
 - Wearables prone to failure for same reasons
- Traditional contact tracing is fundamental, but issues:
 - Technical problems happen and can break the chain
 - Highly dependent on people memory and honesty
 - Close contacts may not want to lose workdays: government actions are necessary





References

- Fetzer, T., & Graeber, T. (2021). Measuring the scientific effectiveness of contact tracing: Evidence from a natural experiment. Proceedings of the National Academy of Sciences, 118 (33)
- Kindt, P. H., Chakraborty, T., & Chakraborty, S. (2022). How Reliable Is Smartphone-Based Electronic Contact Tracing for COVID-19? Communications of the ACM, 56-67.

Thank you for your attention!