VaxCheck: A *Privacy-By-Design* Vaccine Certificate Passport

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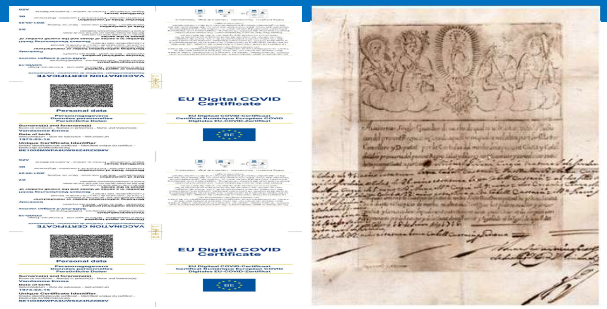
Motivation

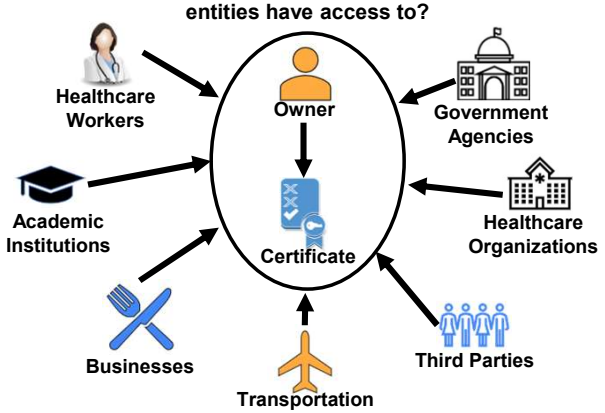


[2] [3]

- **6.96 million cases have resulted in death** [1],
- Other solutions for combating the pandemic stifled daily life,
- **Digital Vaccine Certificates (DVCs)** are an effective tool for future pandemics.

Problem

What vaccination information should other entities have access to?



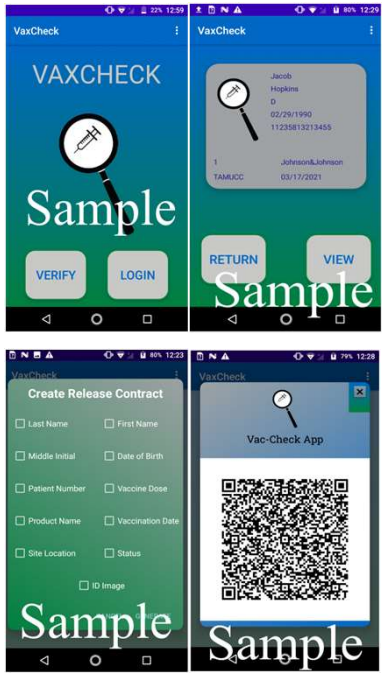
Each stakeholder has a different set of priorities.

Research Questions

1. *What is the perception of users towards DVCs?*
2. *What are the proper flows of private health data during a public health emergency?*
3. *Can users effectively control the release of information included in DVCs?*

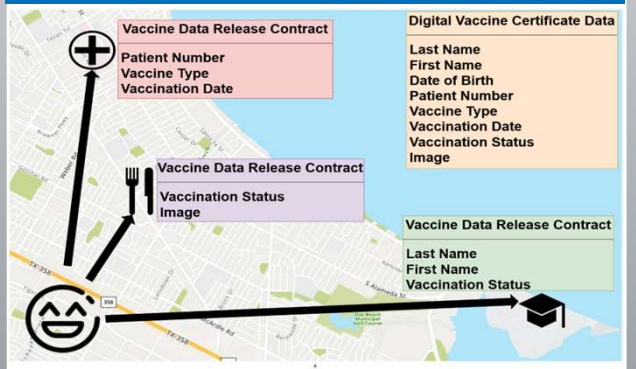
Our Approach: VaxCheck

1. Owners control what data is shared,
2. Third party verifiers can ask for data,
3. Use of location to determine data to be shared,
4. Enabling negotiation between owners and verifiers,
5. Modeling the decision process in a verification event.



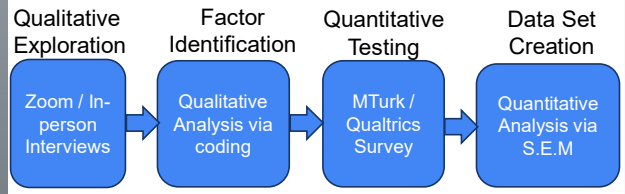
1) *Who coronavirus (COVID-19) dashboard.* https://covid19.who.int/
2) *1718 Patente di Sanita'-Sanitary-Maritme Passport.* https://www.passaporto-collezionismo-scripofilia.com/1718-patente-di-sanita-sanitary-maritme-passport-rilasciata-ai-componenti-di-equipaggio-di-nave-data-cagliari-per-genova/
3) *EU Digital COVID Certificate.* https://itextpdf.com/sites/default/files/inline-images/Picture4.jpg

User-Defined Information Sharing



Data-sharing suggestions can be **automatically generated** for the user based on his/her location.

Current Work: Mixed Methods Study



Acknowledgments

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