# IS SOLID READY FOR LOW-RESOURCE ENVIRONMENTS?

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# THE PROBLEM OF USER DATA

Big tech data silos

Analyzed to increase revenue

No data transparency as customer

No data ownership as customer



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Google

# SOLID (SOCIAL LINKED DATA)

Solid, a technological solution initiated by Sir Tim-Berners Lee, the creator of the web at MIT

Decentralized platform to bring back the user's control over their data



Pod (Personal Online Datastore)

# LOW-RESOURCE ENVIRONMENTS

Environments that lack resources that we in Western countries view as commonplace

### Is Solid applicable in low-resource environments?



# What can be done to increase the accessibility of Solid in low-resource environments?

Goals	Method	
What is the current state of Solid technology?	Quantitative research 3 Interviews 1 Survey	
What are challenges for Solid in Low-Resource Environments?	3 Interviews 1 Presentation	
Which devices are supported by Solid?	Lab experiments on Laptop, Mobile and Raspberry Pi	

Digital Society & Global Citizenship

# FIRST FINDINGS: CURRENT STATE OF SOLID

### Early Development Core Functions

### Need for more Solid Applications

Low adoption of other applications Notepod, Media Kraken Not user-friendly Too technical focused Unclear user-interface Difficult developer experience

## User interface of a Pod



# FINDINGS: CHALLENGES IN LOW-RESOURCE ENVIRONMENTS



#### PC Popular languages

#### Mobile Rural languages

## LAB EXPERIMENTS

← → C ☆ 🏻 https://wkokgit.github.io/hellosolid/

#### 🌐 🖈 🗋 🗯 🌋

A webpage that explains some of the basic functionalities of Solid! Created by Wouter Kok

#### **Getting started!**

This is a Solid Client application to explain you the basics of Solid and is build upon an existing application created by Melvin Carvalho. It is created as part of my master thesis. The goal of this application is to help developers interested in developing Solid applications. Both rdflib and ldflex are used for the basic functionalities, and you can switch between them by commenting the appropriate files in the *scripts* section. As there is a lot to explain, let me first show you some websites where you can find more information on Solid. The *Protocol Specification* is an in-depth explanation of the Solid Protocol where you can read more about e.g. authentication, storage, reading and writing resources and more. In the *Developer Tools* there is a big list of tools that can help developing for Solid. If you are struggling with the interface of your Pod at the Solid Community Server, you can check the *Pod Interface User Guide*. The cheatsheet and the websites on rdflib and ldflex were helpful towards creating the reading and writing functions. Most other sites speak for themselves.

#### Solid websites

Home Pod Interface User Guide Protocol Specification Developer Tools Other apps Github Forum Reddit Gitter W3 Community Group Wiki Additional cheatsheet for retrieving POD data

#### Other helpful websites

Understanding graph data-structures

#### PC

#### Mobile

#### **Raspberry Pi**

# Solid Application for developers

### Finally: Is Solid applicable in low-resource environments?

In its current state, Solid is not applicable in low-resource environments.

#### What can be done to increase the accessibility of Solid in low-resource environments?



Mobile Solid Pod Support



Offline-First Support



Multilingual Support



**User-Friendly** 





# Thanks for listening!

Do you have any questions?

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