UNIVERSITÄT PADERBORN
Die Universität der Informationsgesellschaft

Institute of Computer Science
Research Group: Theory of Distributed Systems

Appstore for LibreSocial

A repository based App-management for P2P Framework

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Agenda

- Overview of LibreSocial
- Motivation for Appstore
- Appstore
  - Features
  - Usecases
- Appstore Plugin
  - Design and Implementation
  - Graphical User Interface
- Summary and Future work
- Demo

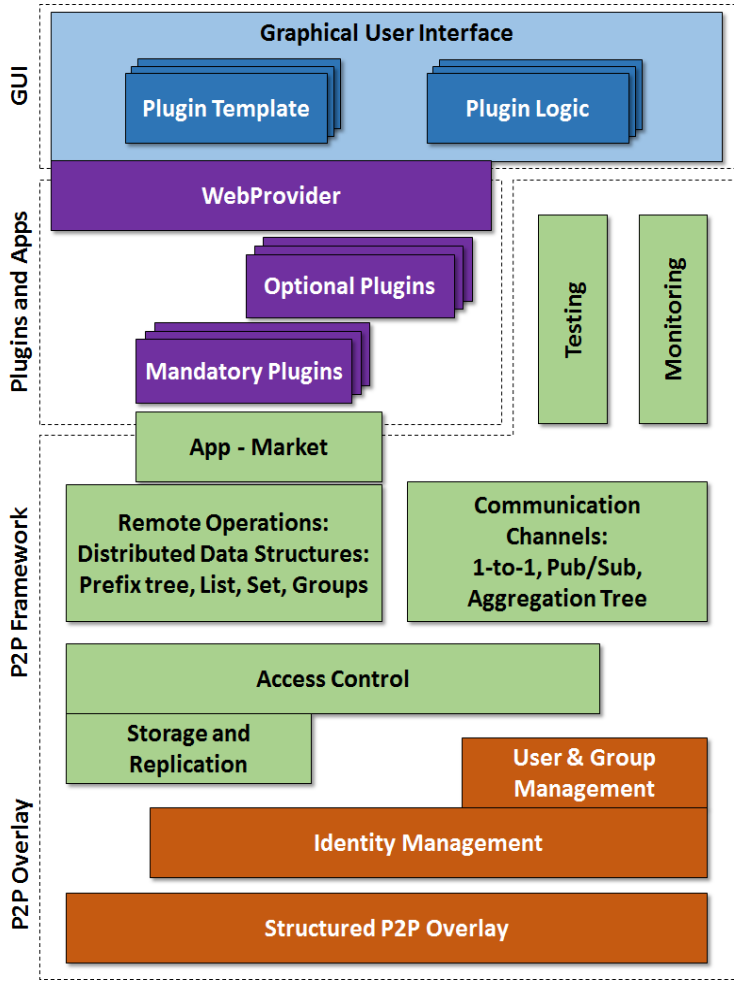
LibreSocial



LibreSocial

- A social network based on P2P framework
- No central servers required
- Plugin-based layered architecture
- Extendible with additonal plugins
- Use of standard technologies

LibreSocial Architecture



Plugins Overview

Web Provider

Login

Profile

Friends

Notifications

Messaging

Photos

Groups

Files

Forum

Voting

Calendar

Search

Wall

Chat

Audio/Video Chat

Appstore

Community

Testing

Monitoring

Command

Error Console

Motivation

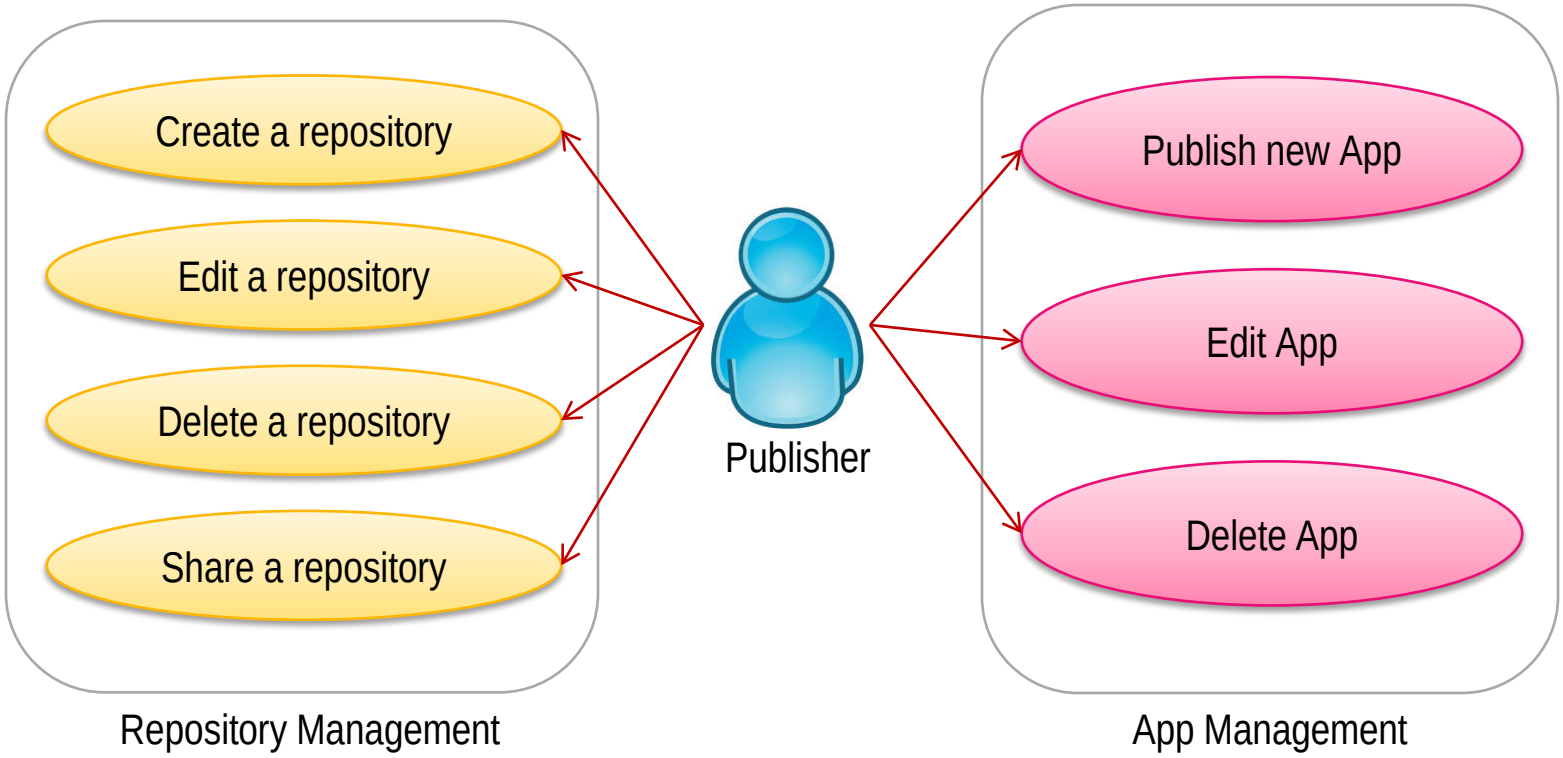
- Extensive App-market
- Third party Apps for the users
- Customizable Apps
- Repositories to store Apps
- App Management



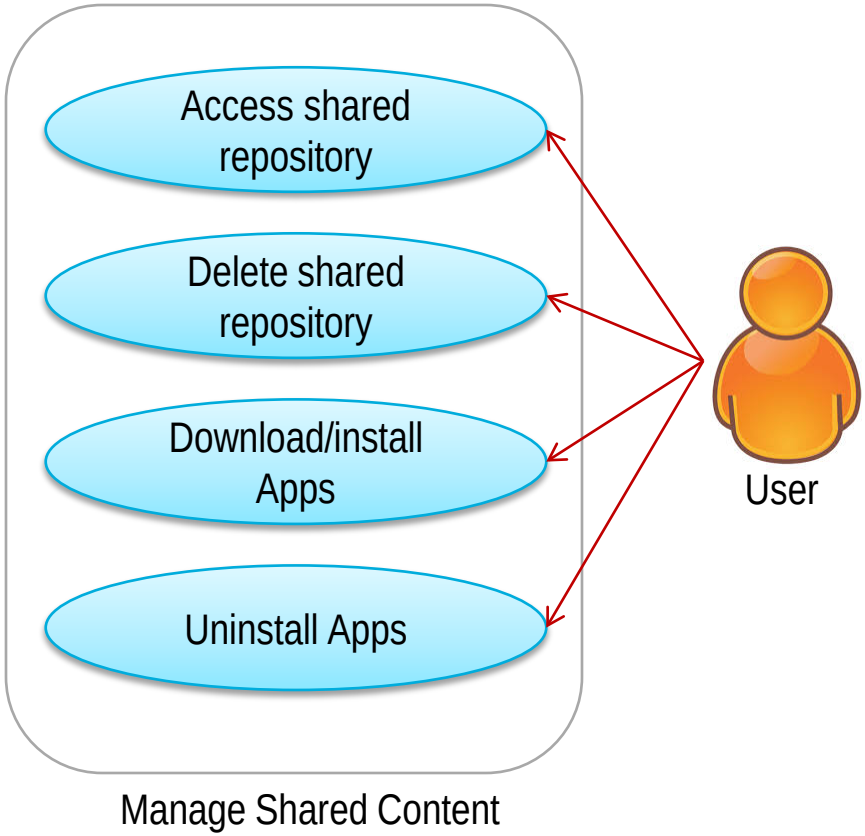
Features

- Appstore Views
  - Publisher view
  - Shared repositories view
  - Installed Apps view
- Repositories
  - Collection of Apps
  - Folder like structure
  - Personal or shared
- Apps
  - Osgi bundles
  - Plugins installed at runtime
  - App contents
    - Description (Meta-data)
    - Executable .jar file

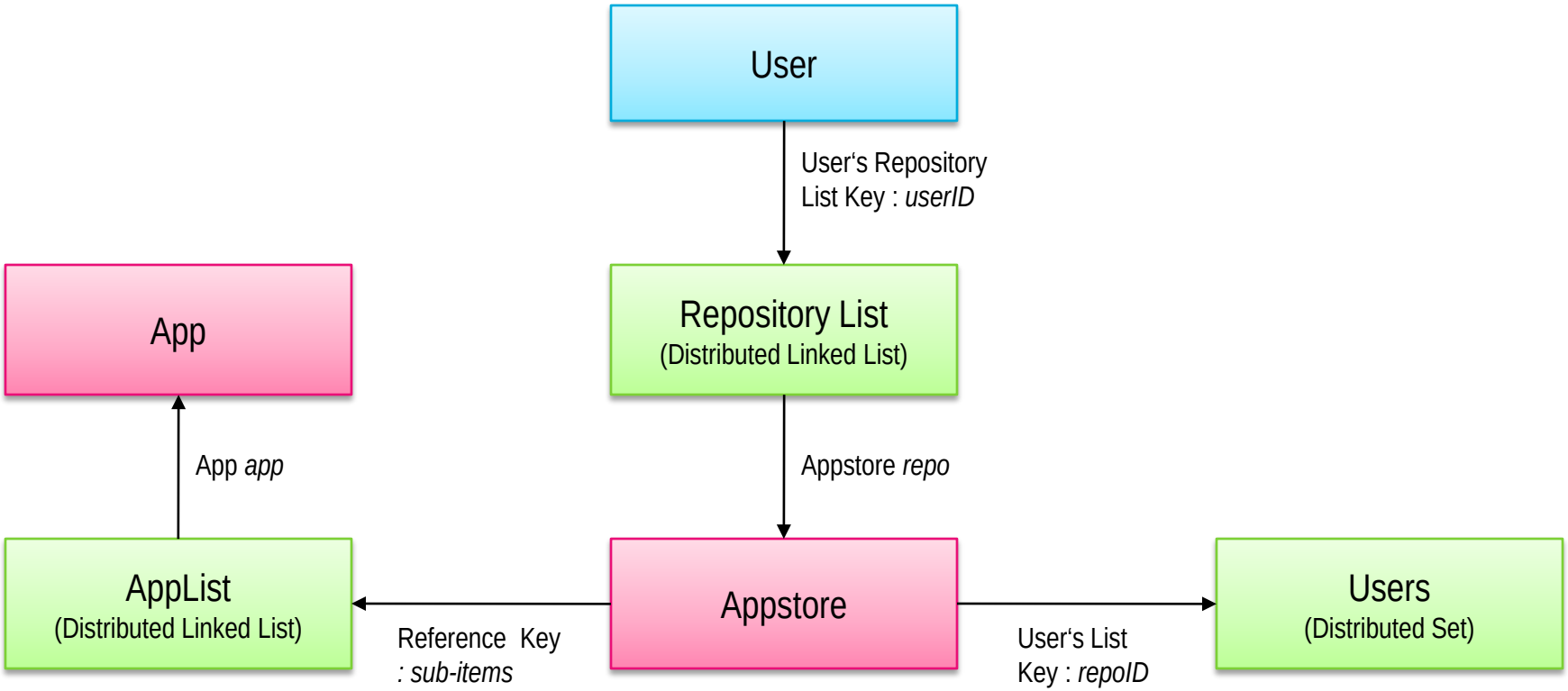
Use-cases


Create a repository
Edit a repository
Delete a repository
Share a repository
Publisher
Publish new App
Edit App
Delete App
Repository Management
App Management

Use-cases


Access shared repository
Delete shared repository
Download/install Apps
Uninstall Apps
User
Manage Shared Content

Design and Implementation

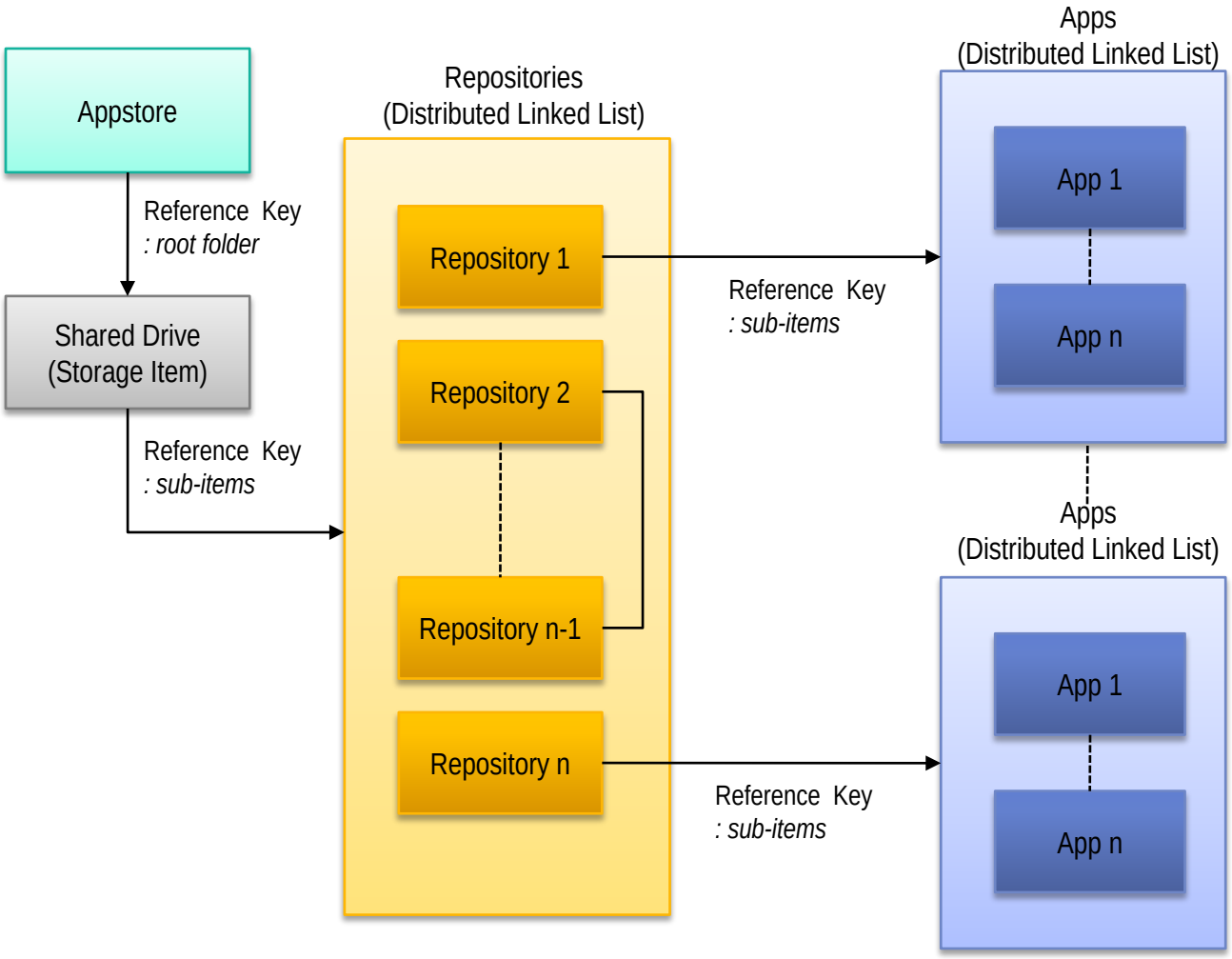




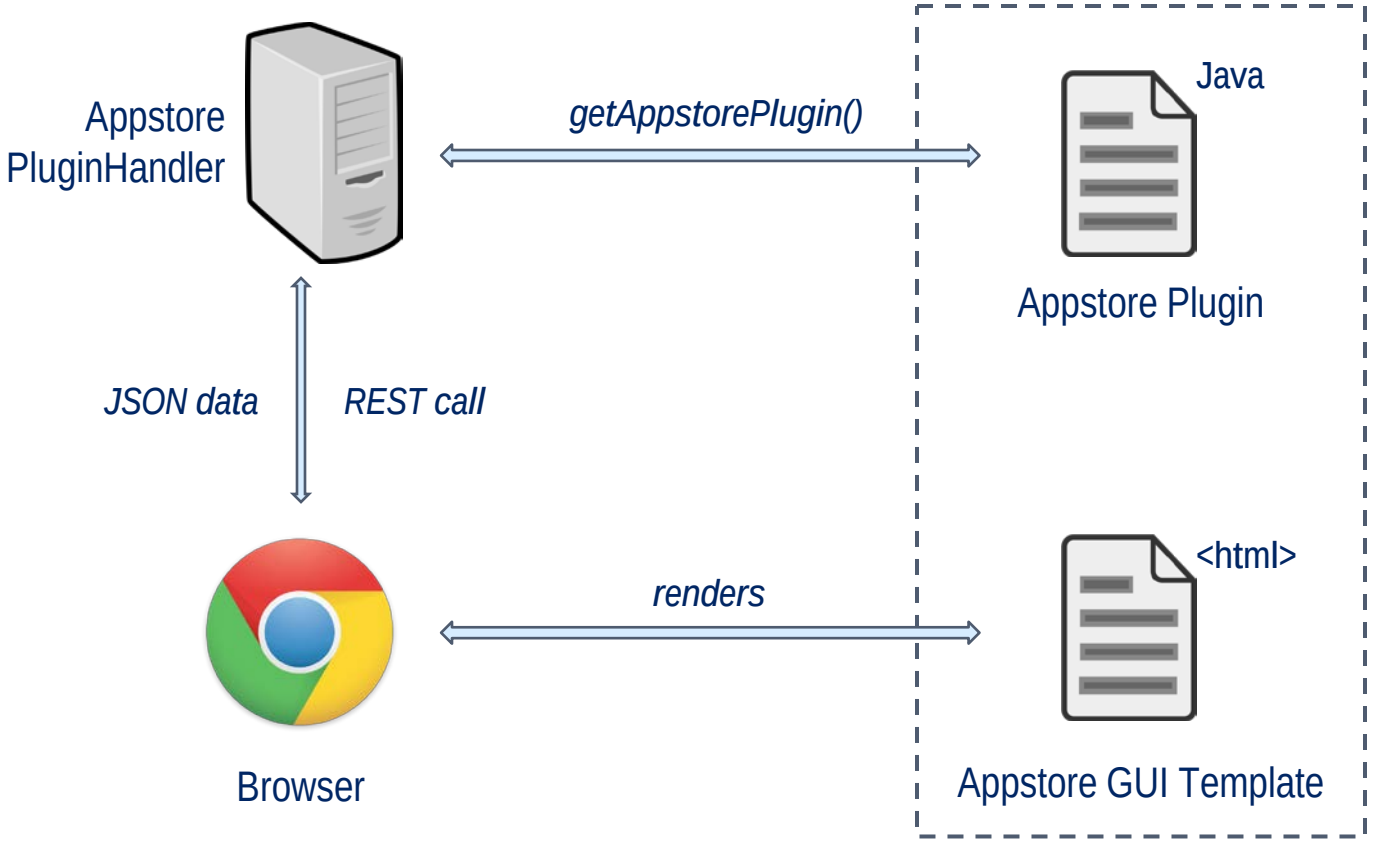
Design and Implementation

- Every user has a list of repositories
- A repository can be shared using the *repoID*
- A repository is associated with a bunch of users, with whom the repository is shared (User list)
- A repository is the *rootFolder* in the folder structure
- Apps constitute the contents of a repository
- App comprises of meta-data and file information

Design and Implementation



Plugin and GUI communication

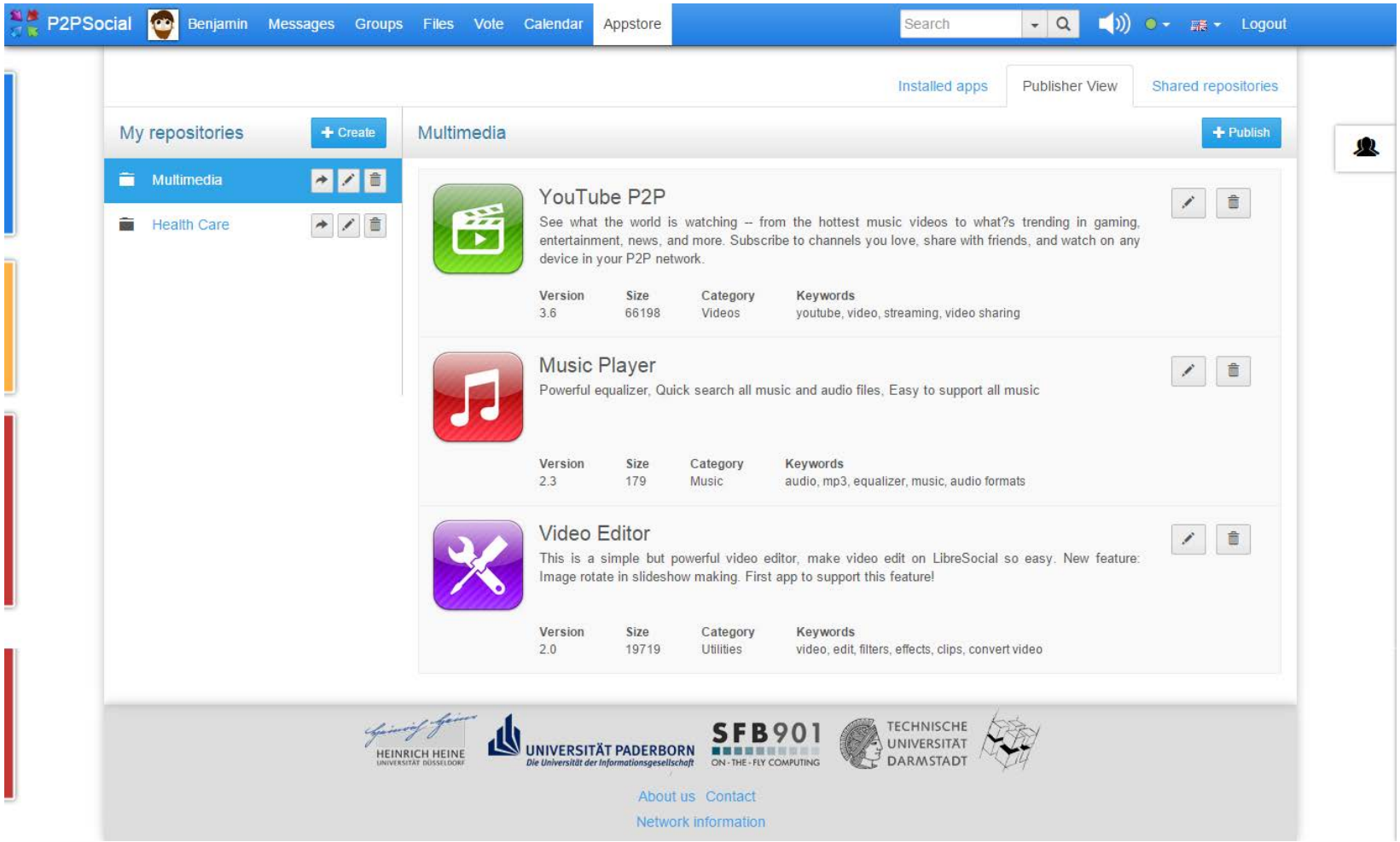


Graphical User Interface

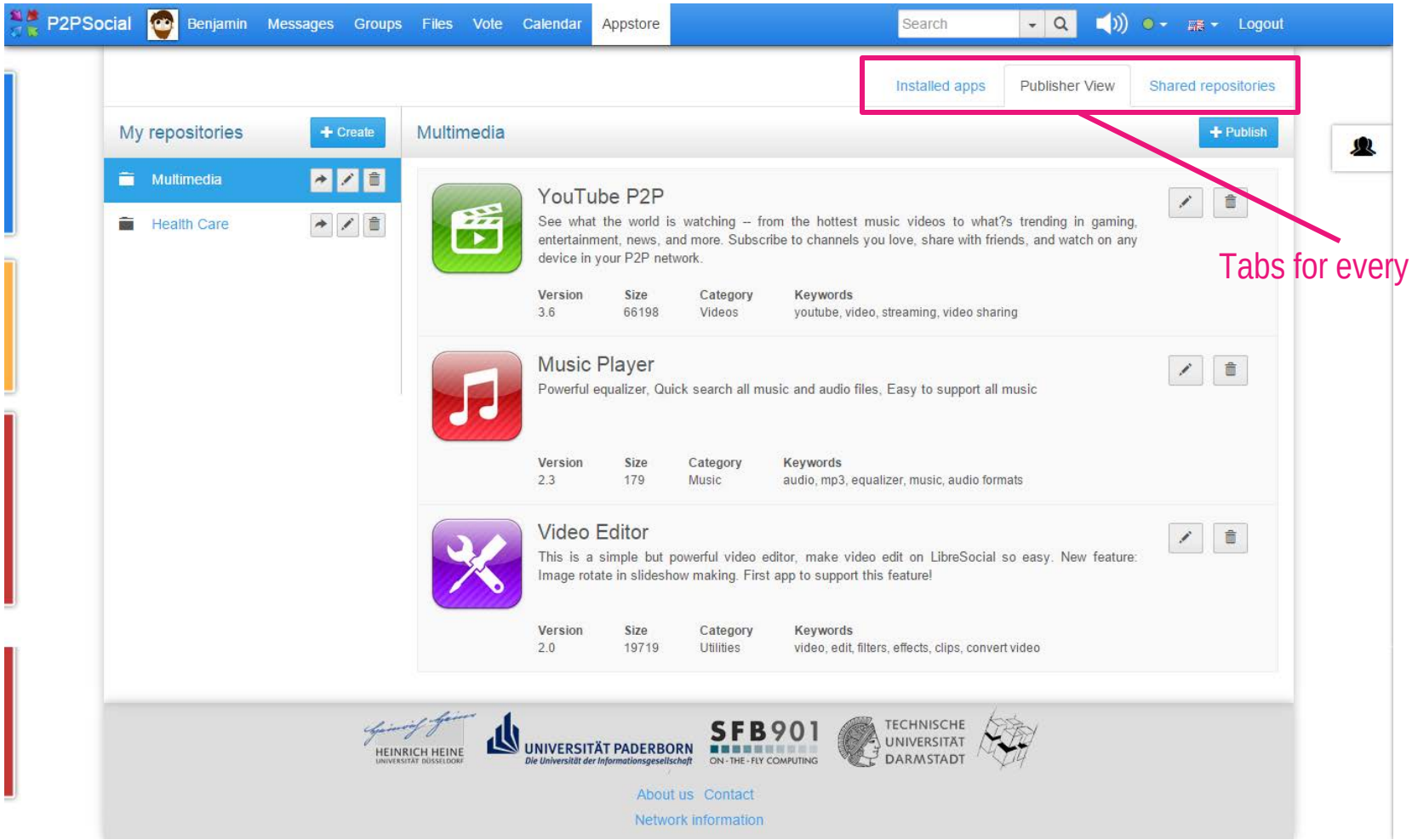
- GUI decoupled from Eclipse
  - application acts as a “Backend”
  - actual GUI is opened in a browser
- Use of standard web technologies:
  - HTML5
  - AJAX
  - jQuery
  - Bootstrap
  - Knockback.js



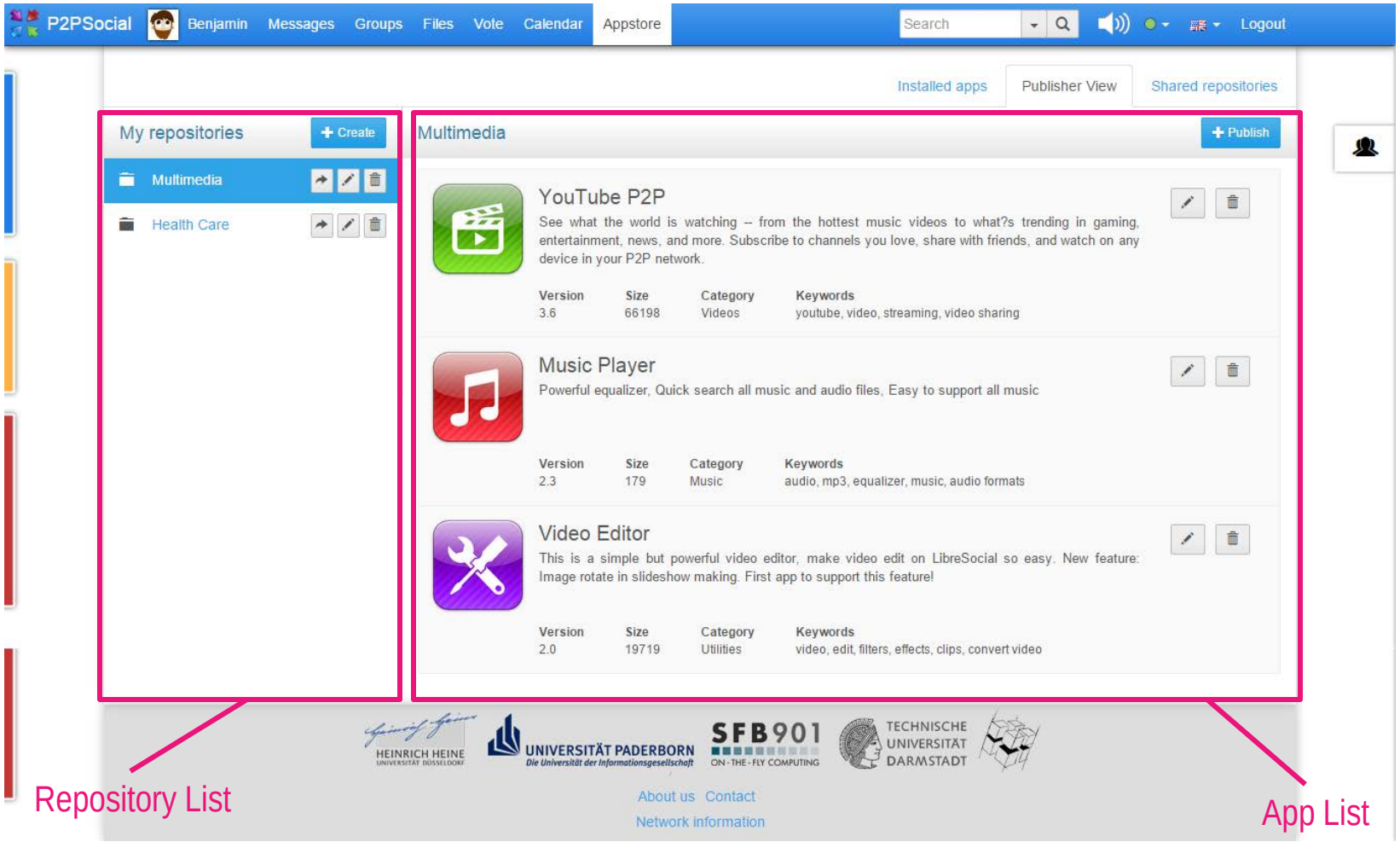
Design of GUI



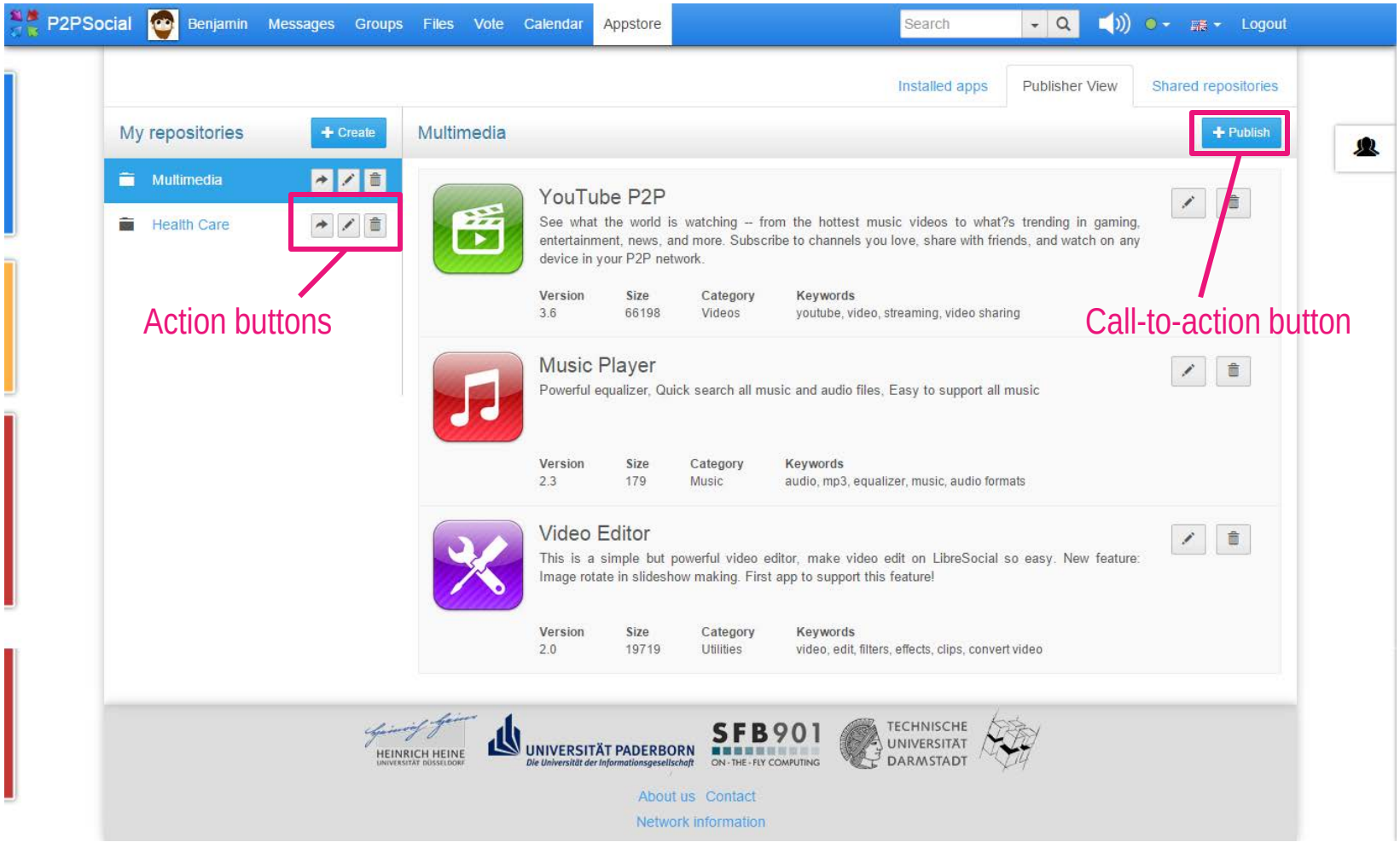
Design of GUI



Design of GUI



Design of GUI



Design of GUI

- Views
  - Publisher View
  - Shared Repositories View
  - Installed Apps View
- Page Layout
  - Two sections for each view
    - Repositories
    - Apps
- UI elements
  - Tabs
  - Lists
  - Modal windows
  - Buttons
    - Call-to-action buttons

Summary

- Appstore
  - Extensive plugin to LibreSocial
  - Platform for App-market
  - Features: Views, Repositories and Apps
  - Roles: Publisher, User

- Appstore Plugin
  - Design and implementation
  - Graphical User Interface

Future Work

- App installation
- Search feature
- Enriching the meta-data for the app
  - Icon
  - Screenshots
  - Rating

Demonstration



Thank you for listening

Enjoy the demonstration