

# The Mannheim University Library App

concept and further development



IgeLU 2015

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2015/09/04

# The Mannheim University Library App

## concept and further development

### **My Name**

- is Alexander Wagner

### **I am**

- Systems Administrator & Developer

### **Last year's project**

- Mannheim University Library App  
(UB Mannheim App)

# **The Mannheim University Library App**

concept and further development

## **Agenda**

**Background**

**Concept**

**Development**

**Live presentation**

**Vision**

**Questions**



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# The Mannheim University Library App

## concept and further development

### Background

- students orientation has changed
- mobile services grow larger in nearly every aspect (daily life, business)
- concept based on students working methods
- improve library attractivity by creating modern workspaces and directly delivering the services they need

# The Mannheim University Library App

## concept and further development

### Concept

What decisions had to be made to satisfy the students needs?

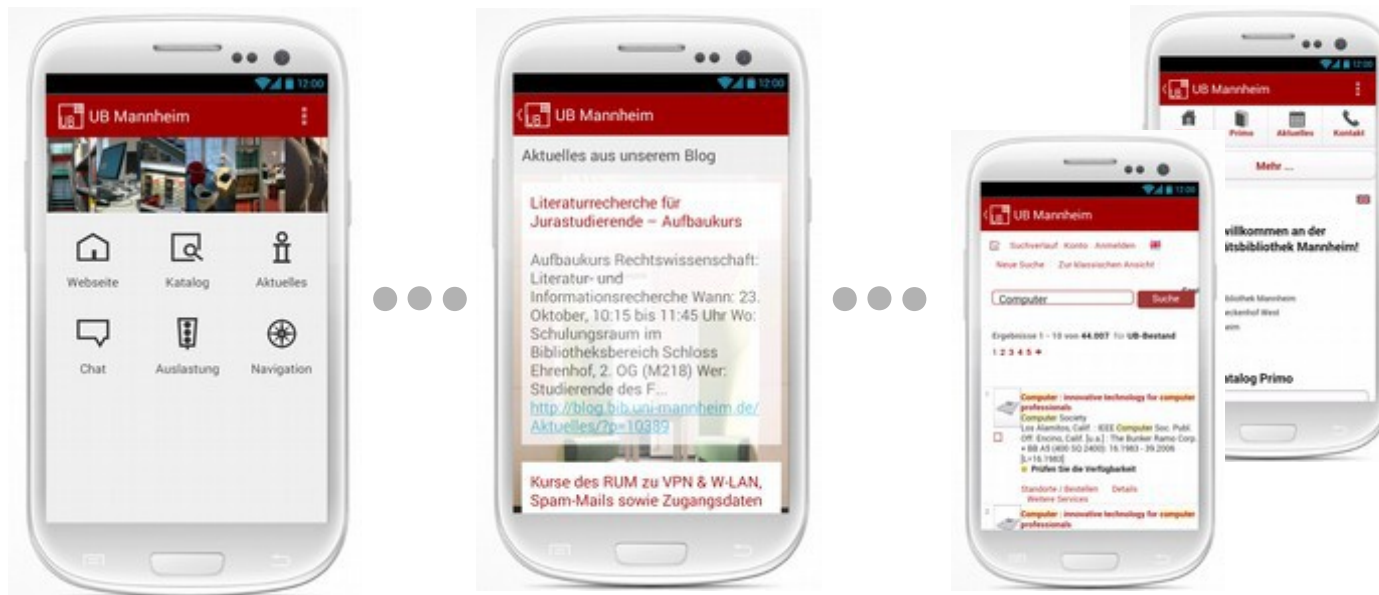
- requirements analysis
- determine services, modules and interfaces
- provide UI design / UX
- select codebase (language, tools)
- choose platforms & stores
- set development periods
- create prototype

# The Mannheim University Library App

## concept and further development

### Concept

What the prototype looked like ...  
(August 2014)



# The Mannheim University Library App

## concept and further development

### Concept

What we figured out with the help of the prototype

#### Services

- 4 main functions
  - ◊ browsing the mobile website
  - ◊ search the online catalogue primo
  - ◊ check the library's news
  - ◊ find free seats in the library
- additional functions
  - ◊ configuration (customize app)
  - ◊ help

#### User Interface

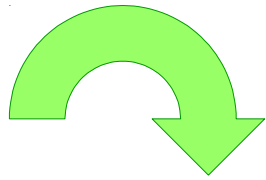
- classical interface well accepted
  - ◊ horizontal menu bar on top
  - ◊ logo and configuration menu
  - ◊ 4 buttons on main screen
- slightly different arrangement of content in each view
- keep it simple
- form follows function

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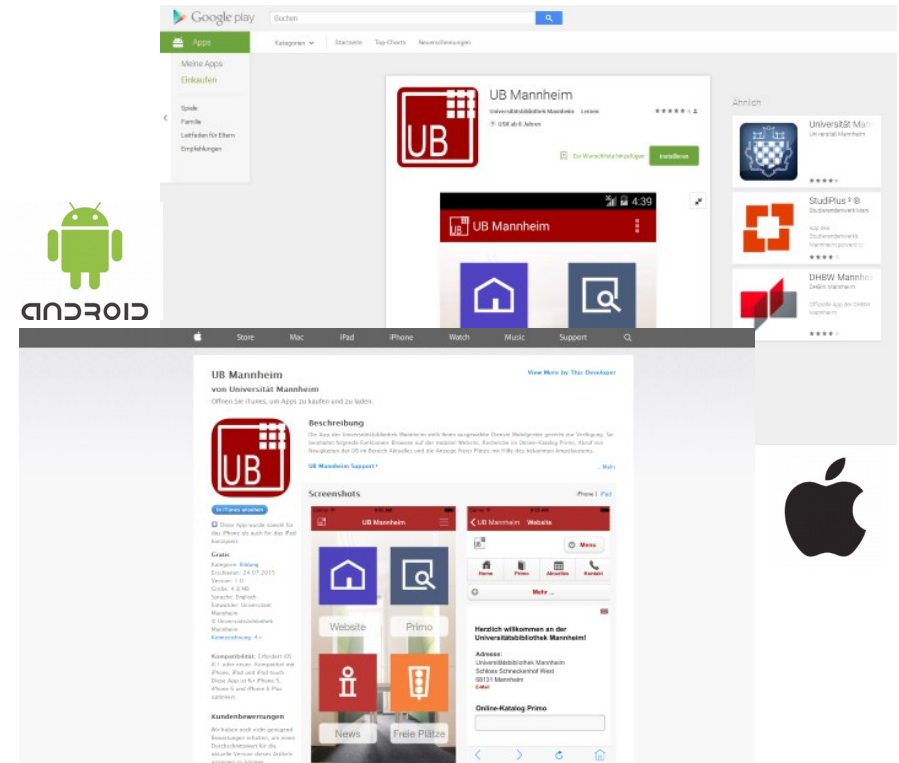
## Mannheim University Library App

June 2014



August 2015

- meanwhile, app is available in Google Play Store and Apple Store
- it provides selected services for mobile use on different devices



<https://itunes.apple.com/de/app/ub-mannheim/id1020101750?mt=8>

[https://play.google.com/store/apps/details?id=de.uni\\_mannheim.bib.app](https://play.google.com/store/apps/details?id=de.uni_mannheim.bib.app)



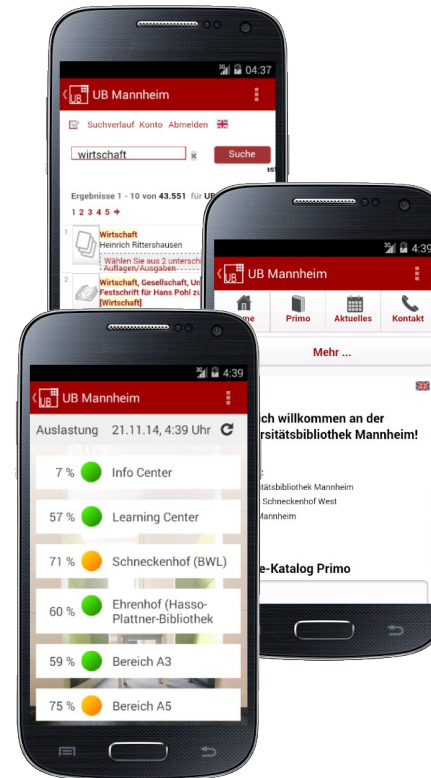
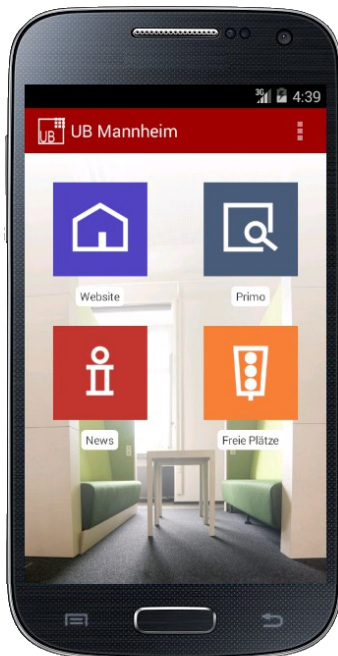
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### User Interface

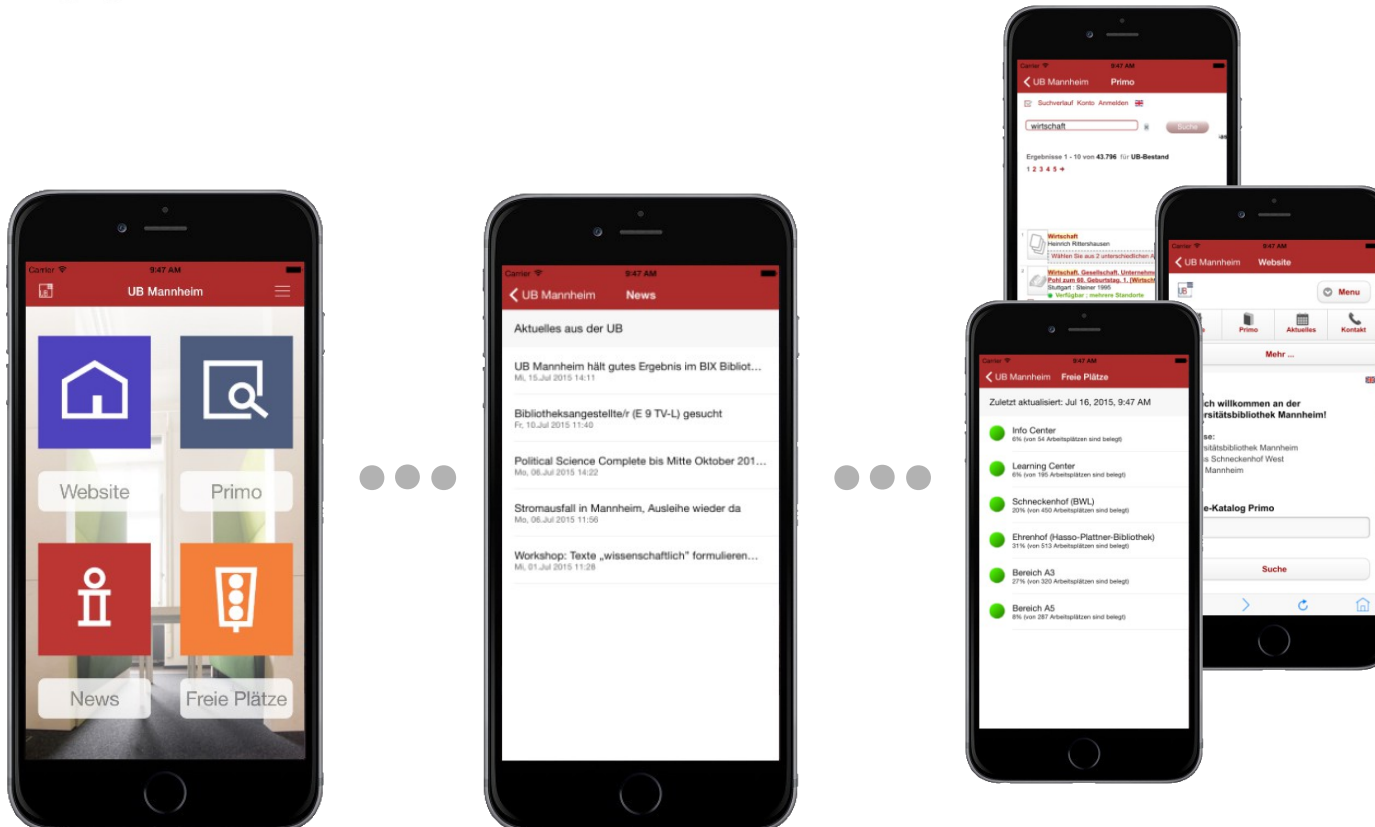


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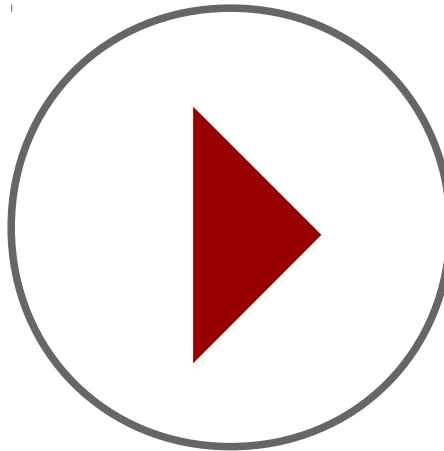
### User Interface



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## Presentation



# The Mannheim University Library App

## concept and further development

### Services



#### Website

shows mobile website in webview (simple frame „webview“ that shows webcontent)

- mobile website created in 2013, based on a PHP script / Javascript wrapper, that extracts the TYPO3 content and generates static HTML files, which are published every morning
- displays static, automatically generated HTML

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### Services



#### Primo

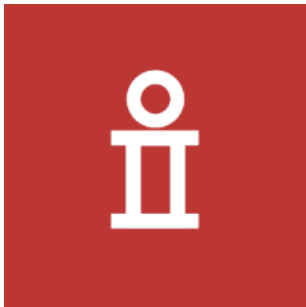
shows mobile Primo website in webview with known features

- added voice input (only Android)
- already had the mobile primo running, difficulties in handling account management and patron information properly
- no changes planned, awaiting new Primo UI
- information from the last days will help to improve :)
  - ◊ developer meeting on saturday

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### Services



#### News

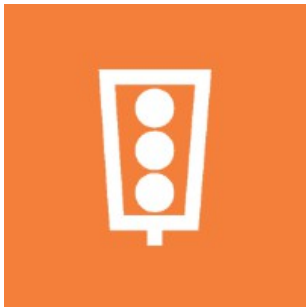
shows latest news from the blog

- RSS client loads content from Wordpress interface
- module shows the latest news in a preview and detailed listview
- links to blog entry
- news count can be configured

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### Services



#### Free Seats

shows the number of free seats in the reading rooms, based on WiFi data

- app gets data from JSON endpoint and shows the occupancy as a traffic light (including absolute and relative values)
- collaboration with computing center
- favourite application of students
- widely known, constantly used

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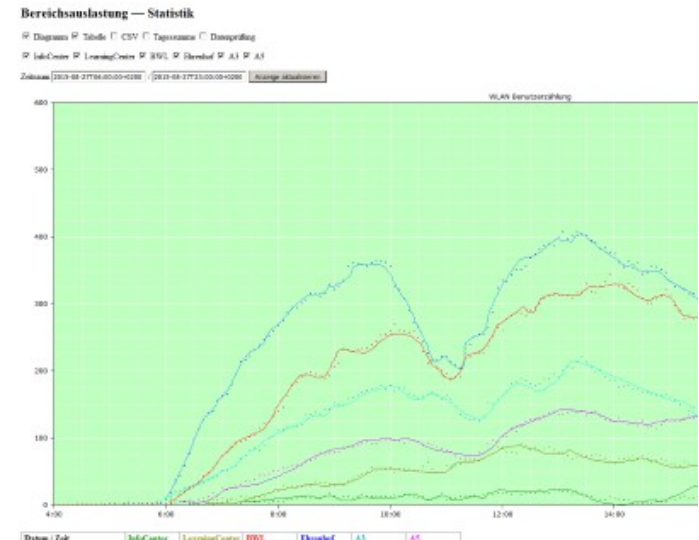
## concept and further development

### Services



#### Free Seats

- library stuff can manage the values
- set customized display of occupancy for a certain period
- integrated statistic tool that can help to calculate the average library usage

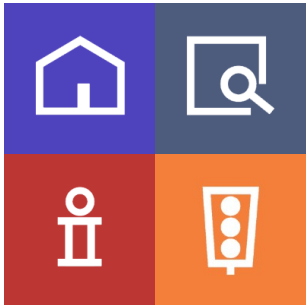




# The Mannheim University Library App

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### Services



#### Configuration / Cache

customize app, choose individual start module, set news count, (de)activate cache

#### Help

explains services and configuration items

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### Development Details

Further topics regarding our development process

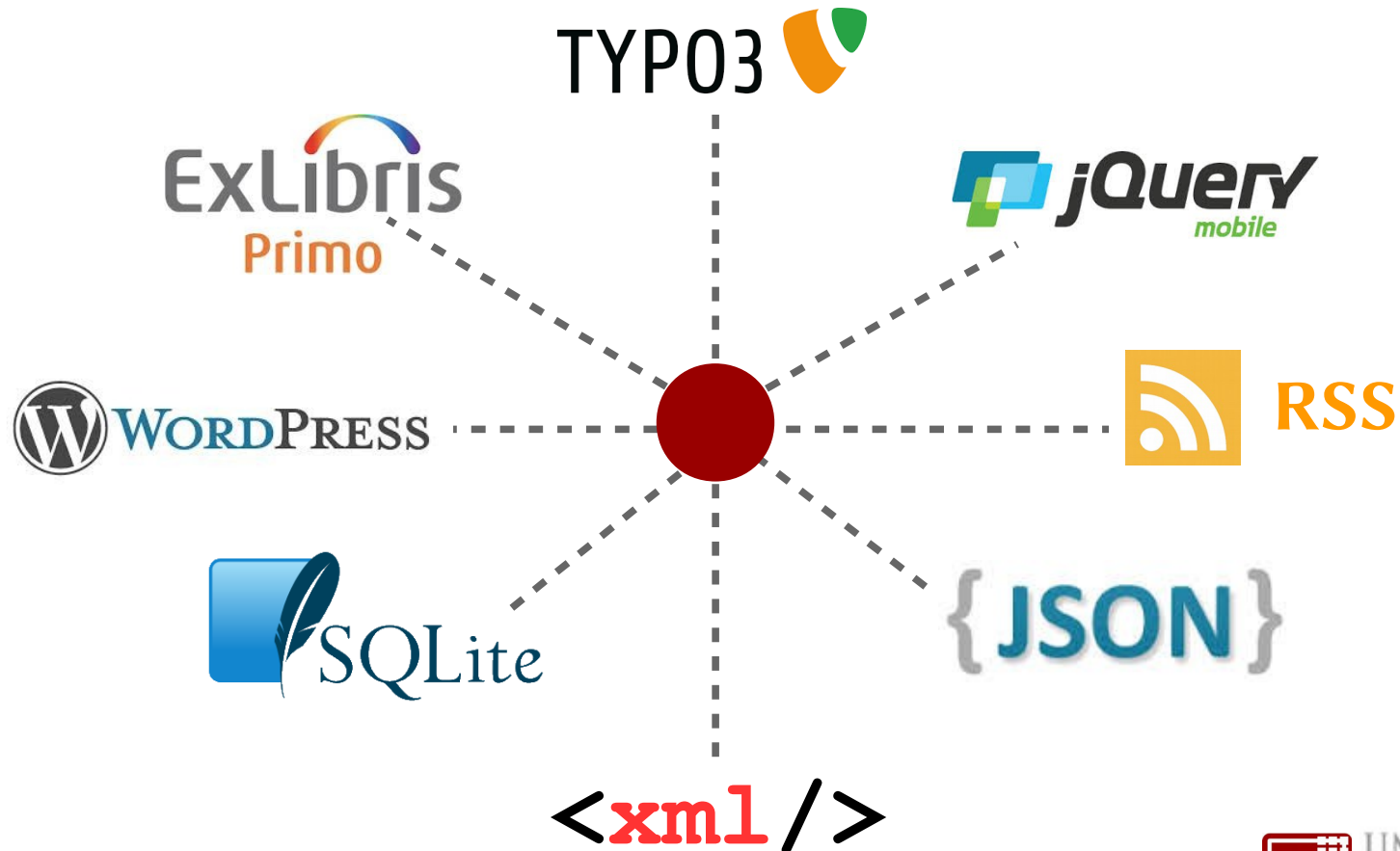
- components
- development periods
- scheduled improvements (bugfixes, updates)
- publishing process
- future goals / targets

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## Components

Interfaces, plugins, libraries



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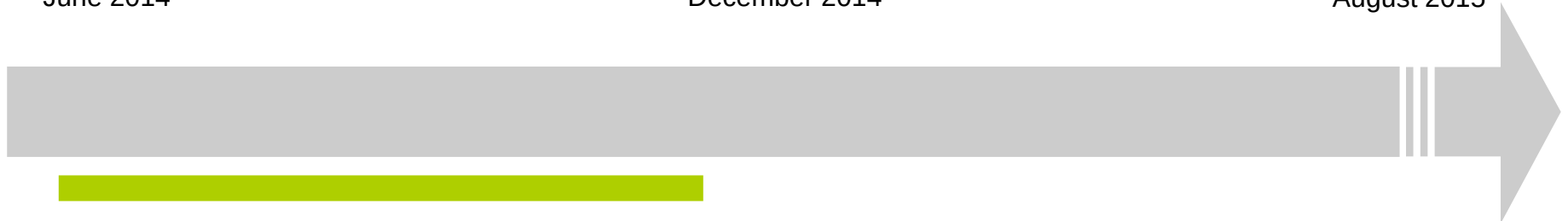
## concept and further development

### Timeline

June 2014

December 2014

August 2015



- **Proof of concept** (Android, iOS)
- preparation of environment and servers
- wire-frames / UI layout
- services and design concept
- **Android development**
- prototype
- implementation of services and server-side interfaces
- testing

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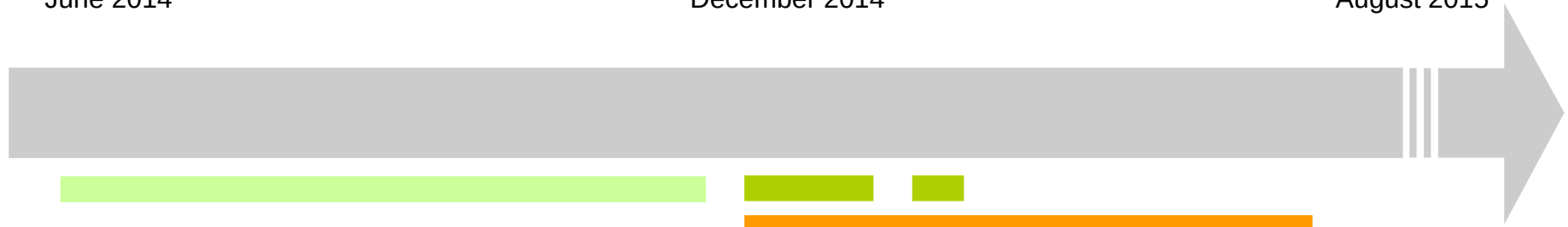
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- **iOS development**
- prototype
- implementation of services
- testing
- **Android bugfixing** and further development

# The Mannheim University Library App

## concept and further development

### Scheduled Improvements

#### Upcoming Versions

- Primo voice input (iOS)
- detailview for news (Android)
- multilanguage Support
- link & start other apps from main screen
- barcode scanner
- support other library services
- changes according to latest versions of iOS and Android
  - ◊ layout (flat design requested)

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### Publishing Process

#### Differences between Google and Apple

##### Google

- simple process
- create package while building app
- publish in Play Store
- wait 1 day
- finished

##### Apple

- complex process
- create separate archive and upload to iTunesConnect (\*)
- publish in app store
- wait 5-10 days for review
- if result positive, finished

(\*) only possible with specified rights and itunesconnect account, apple developer account ist not enough

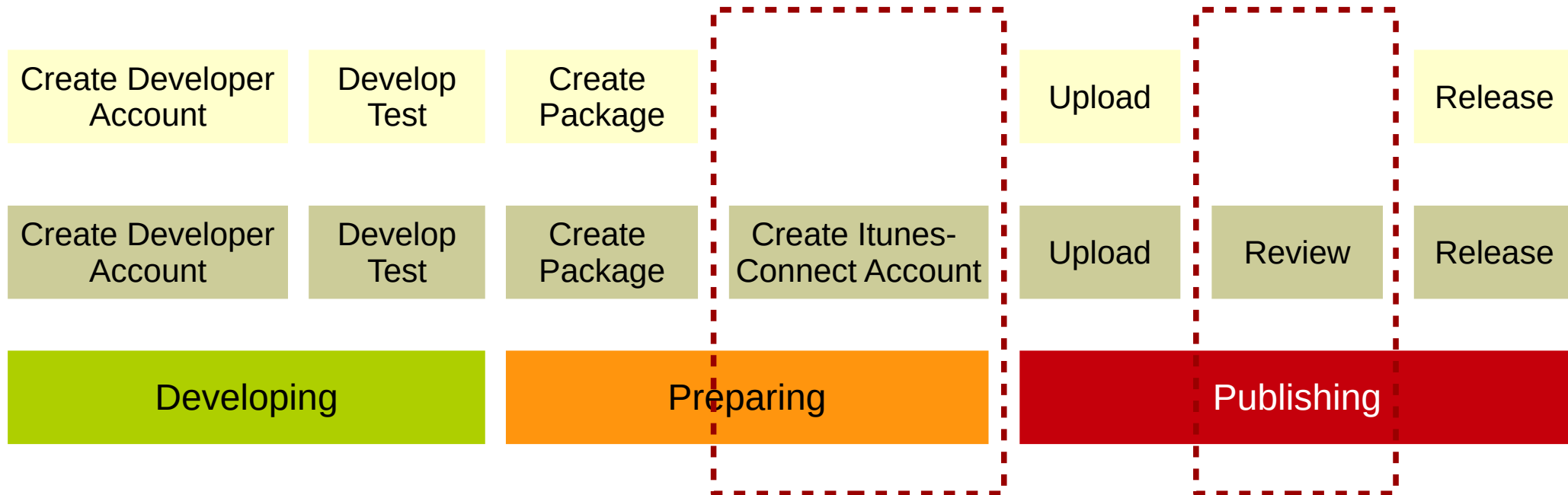


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### Publishing Process

Differences between Google and Apple





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### Vision

#### Open Source

- usage in other libraries
- create independent modules
- prepare modules / tools for simple customization
- provide proper documentation & clear code structure
- check cross-platform development?
- merge trunks?

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### Vision

#### Construction kit

- modularized building set
- choose services by config
- configurable by \*.xml or \*.txt files

#### Structure

- modules
- color, logo
- language

#### Content

- labels, text, descriptions
- URLs

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### Vision

#### 3 Steps

1



2



3



Download from

**GitHub**



Configure & build

Publish



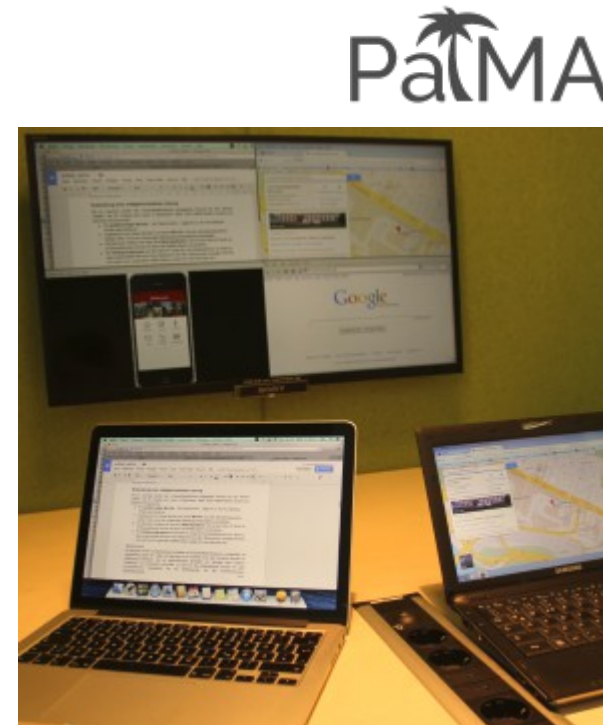
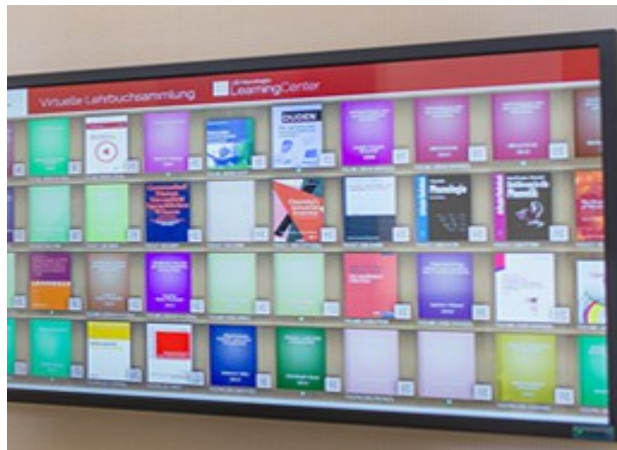
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### Other Development projects

#### UBMannheim@Github

- PalMA (Team Monitor)
- Virtual Book Shelf
- Library Game



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### Links

#### Website

<http://www.bib.uni-mannheim.de>

#### UB Mannheim App

<https://itunes.apple.com/de/app/ub-mannheim/id1020101750>

[https://play.google.com/store/apps/details?id=de.uni\\_mannheim.bib.app](https://play.google.com/store/apps/details?id=de.uni_mannheim.bib.app)

#### UB Mannheim on Github

<http://www.github.com/UB-Mannheim>

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**Questions**



**Thank you**