

Smart Library NSK: Prototype of IoT Technology in Libraries

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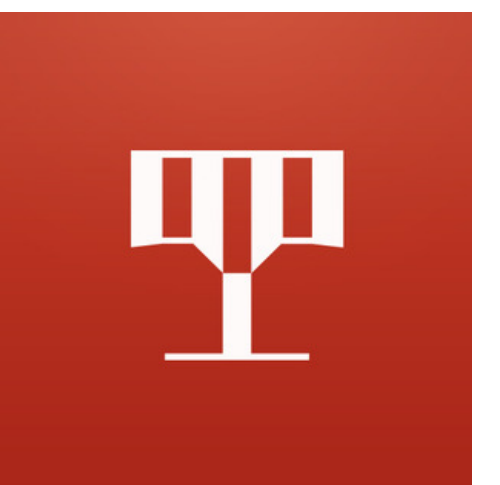


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Smart Library NSK

INTERNET OF THINGS IN LIBRARIES

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User-centered design (UCD)



Process

Context of use
Requirements
Design solutions
Evaluation




Tools

User personas
User scenarios
User stories (journey)

Functionality	Average score	The most common value	Central value
Information about the space and navigation (collections, reading rooms, etc.)	7,48	8	8
Information on how to find and borrow materials (borrowing and navigation instructions)	9	10	9
Library events notifications	6,5	10	7
E-card	7,24	10	8
Application for Evening Work (online form)	8,52	10	10
Borrowing materials (online form)	8,38	10	9
Thematic Search (online form)	8	10	8
Ask a librarian (online form)	7,45	10	7
General information (opening hours, contact)	9	10	10
Reservation of seats in the Reading Room	8	10	9

*Preliminary research on the NSK mobile app, conducted May 3-5, 2018, NSK users

Marko M., student



Goals or Objectives

- Easily to reach necessary literature for writing papers, especially for his final paper
- Computer equipment
- Quiet space to work

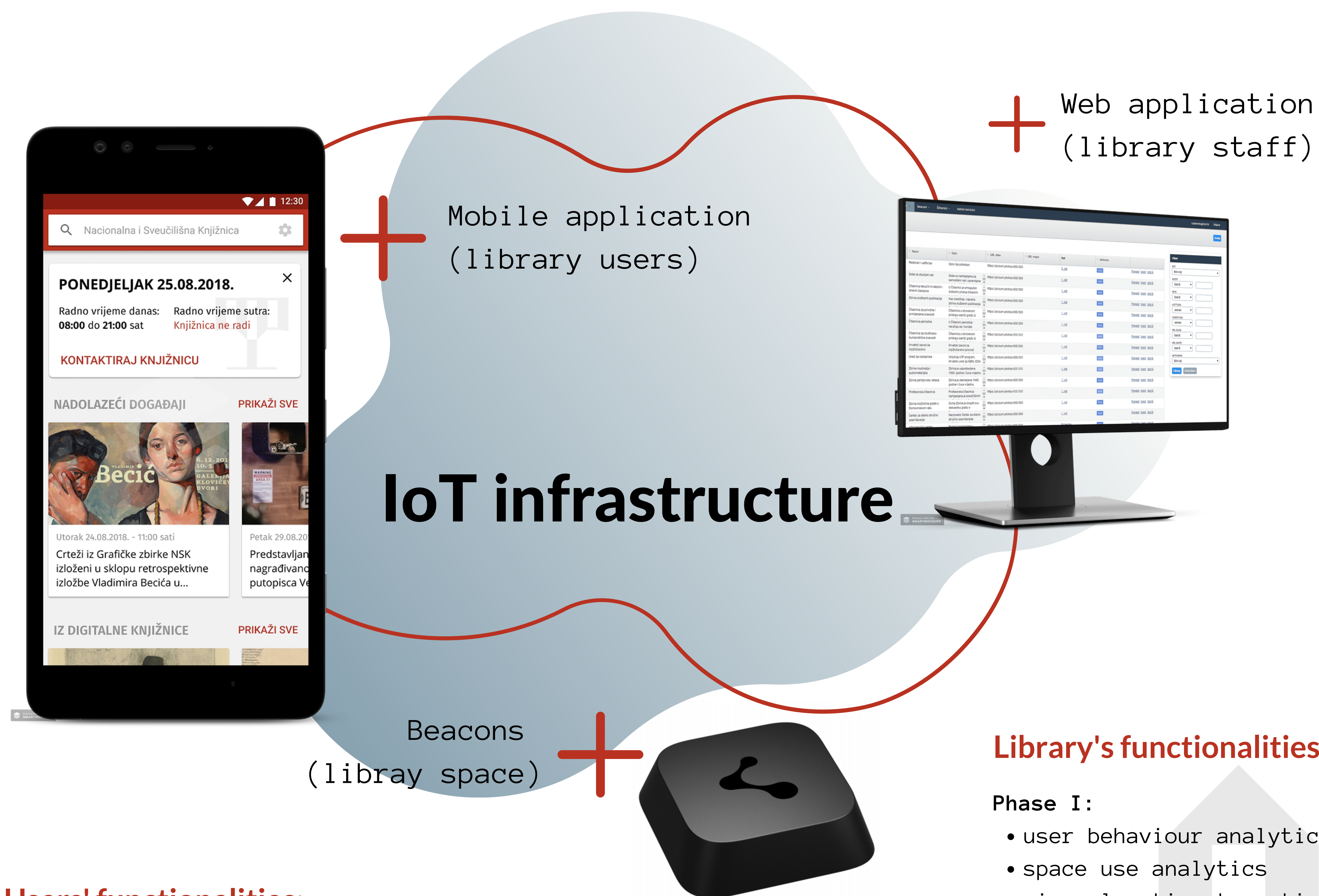
Biggest Challenges

- A complicated book ordering process
- A large and unintuitive library space

Bio

Marko M. is a BA student of history and philosophy. He lives in Zagreb. He is interested in history and competes with colleagues in local pub quizzes. He handles technology well, especially when it makes life easier and shortens the time in an already overcrowded student schedule. It is not a problem for him to ask for help, but he will always try to solve the problem on his own.

*User persona example



Users' functionalities:

Phase I:

- indoor navigation
- contextualization of space
- space-services connection
- factual information (notifications)

Phase II

- personalized content delivery
- information on demand
- M-services
- M-payments
- real time and purposeful education
- edutainment

+ Web application (library staff)

+ Mobile application (library users)

+ Beacons (library space)

Library's functionalities:

Phase I:

- user behaviour analytics
- space use analytics
- micro-location targeting
- real time data
- marketing
- "renting" a part of the system (eg. conferences)

Phase II:

- smart building system implementation
- energy optimisation
- security options
- user profiling
- other library systems integration (M-OPAC)