USER-DRIVEN USABILITY ASSESSMENT OF WEB MAPS

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PRESENTATION OUTLINES

1. Do we need another usability research methodology?
   Results of usability research practice analysis
2. User-driven usability assessment methodology
   Principles, research process, possibilities
3. How it works?
   Web application to perform user-driven usability research
4. Future plans

Main questions

Usability research practice in cartography - what information about users needs we get? Do we know what our users want and how to implement that?

Main aims

Improve the process how users are involved in web maps development process. Create usability research methodology to analyse what kind of functionality and GUI users expects from different types of web maps.

Expected results

Usability research proccess based on participatory design principles. Tools to perform user-driven usability research and analyse trends of users expectations.

ANALYSIS OF USABILITY RESEARCH PRACTICE IN WEB CARTOGRAPHY

Main analysis criteria:

Research objectives, Research orientation, Usability assessment method, Results application possibilities for users needs identifications, map creators, researchers

According results of performed analysis 4 main usability research types were distinguished:

1.Research of concrete functions/tools usability quality

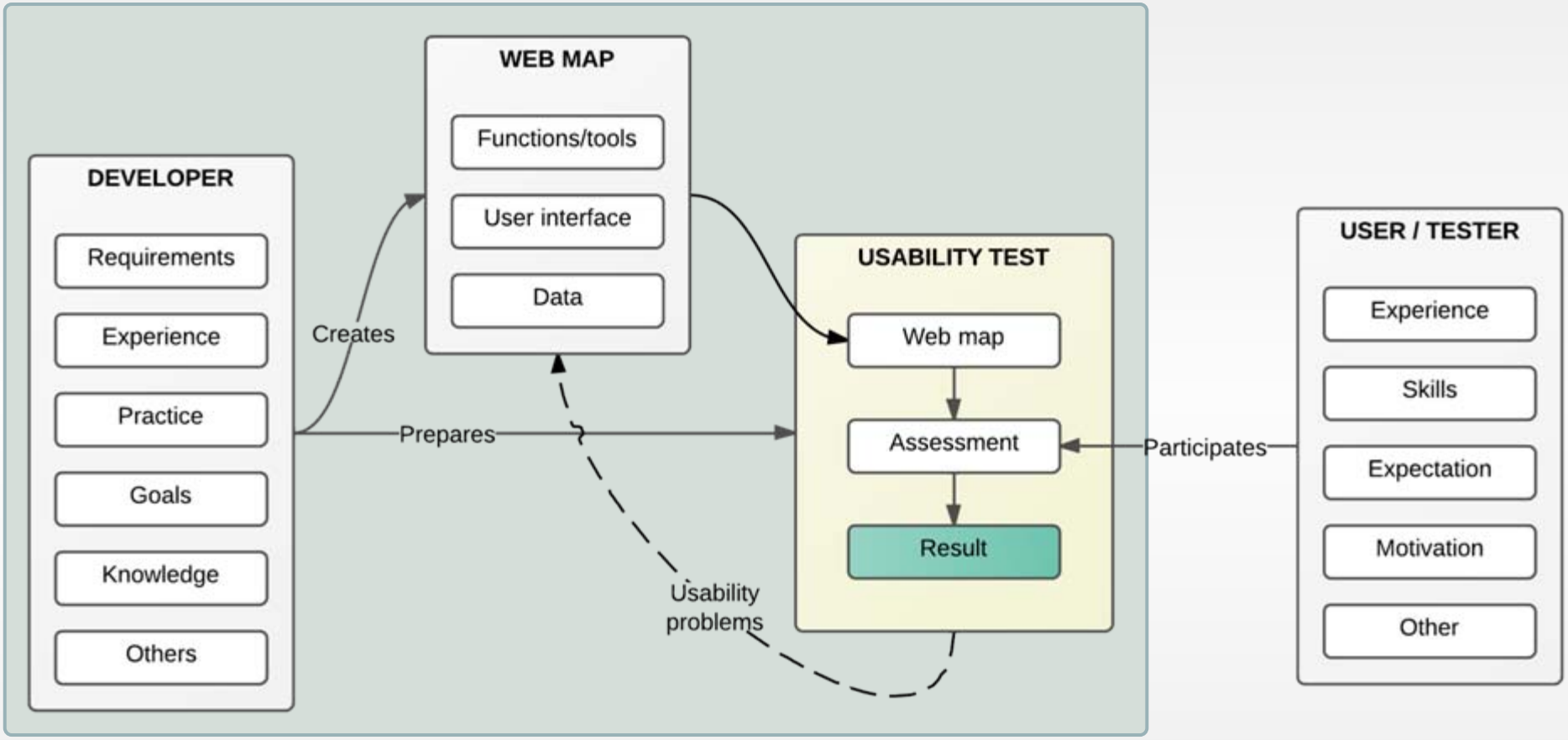
2.Research of maps usability for concrete use cases

3.Research of specialized maps usability quality

4.Comparative usability research of similar web maps

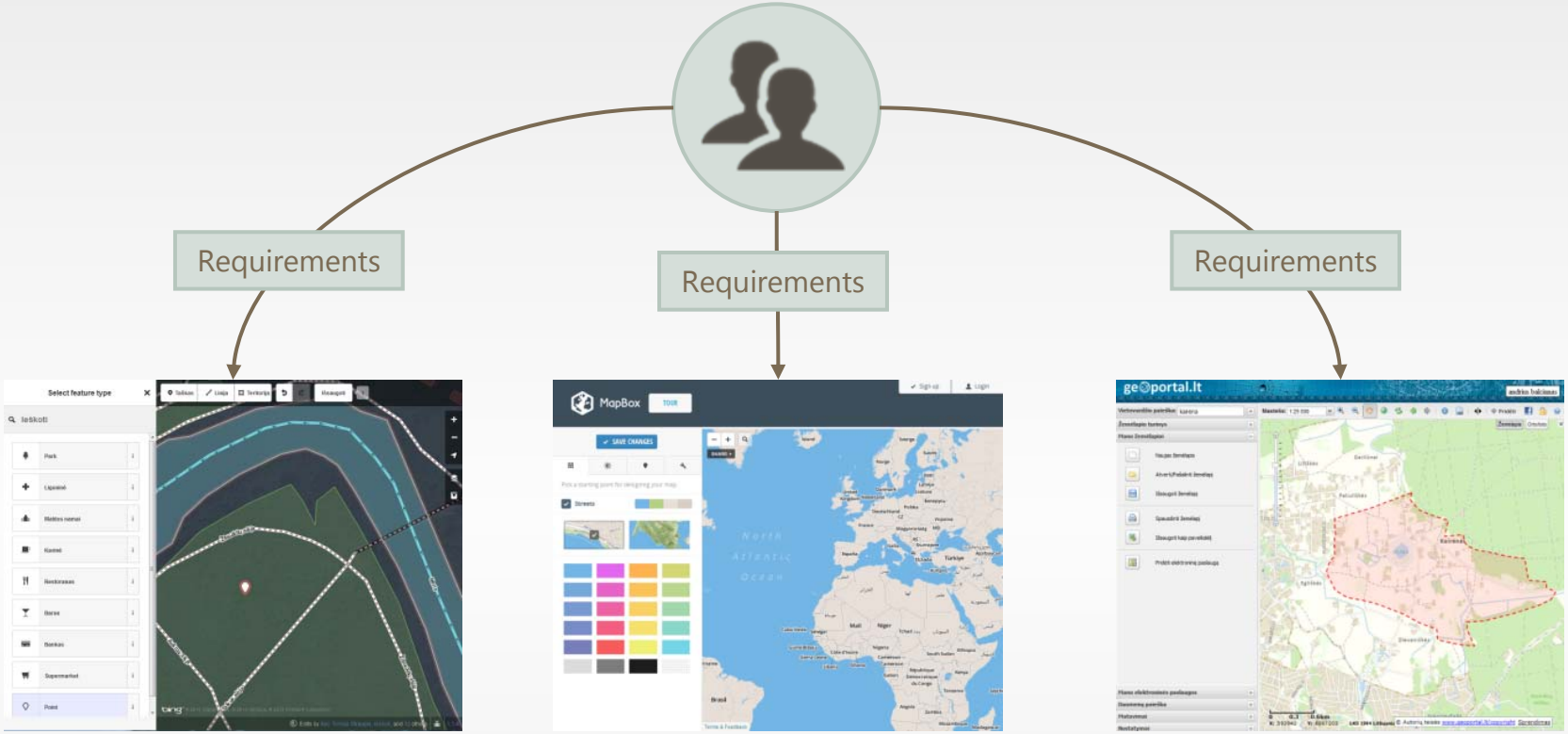
Research types and enviroment are different but methodology is similar - analysis of user interaction with already prepared web map and tools

Program driven usability research approach



Usability quality guidelines based on maps we assess.

Why do we need one more usability research methodology?



To get information about functions and GUI needs directly from user

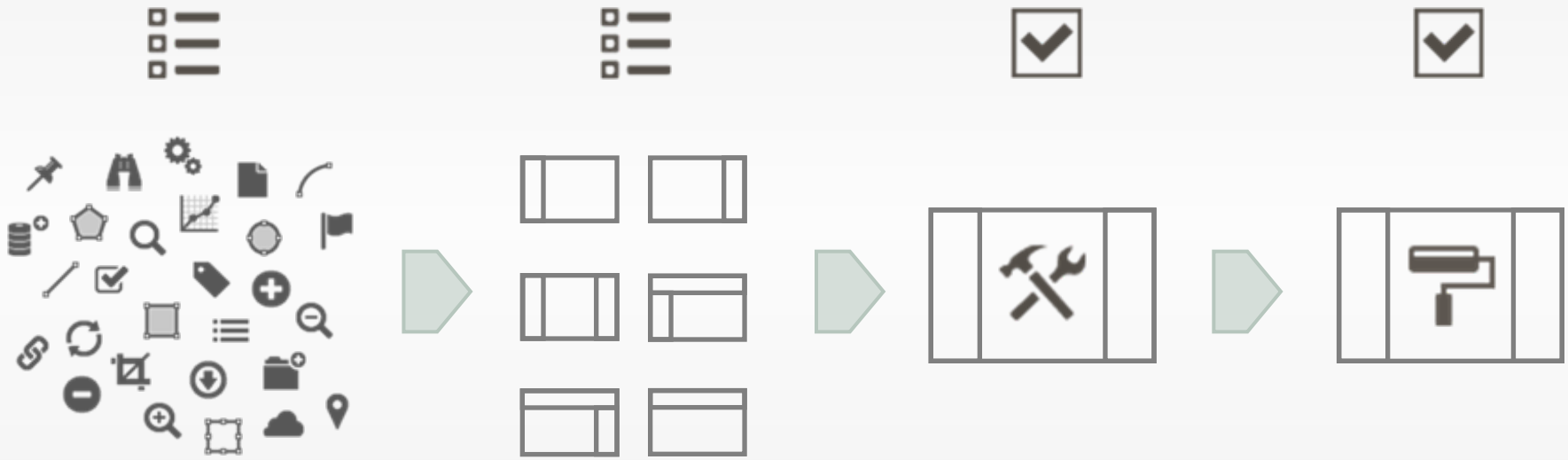
To put user as the main source of usability requirements for web maps

To analyse different users need for different types of web maps

To form guidlines for web maps creation based on users expectations

USER-DRIVEN USABILITY ASSESSMENT METHODOLOGY

The essence of a **user-driven usability assessment process –** provide to the user a freedom to define needed functions, convenient layout, menus and GUI style of web map for the choosed/defined use case.



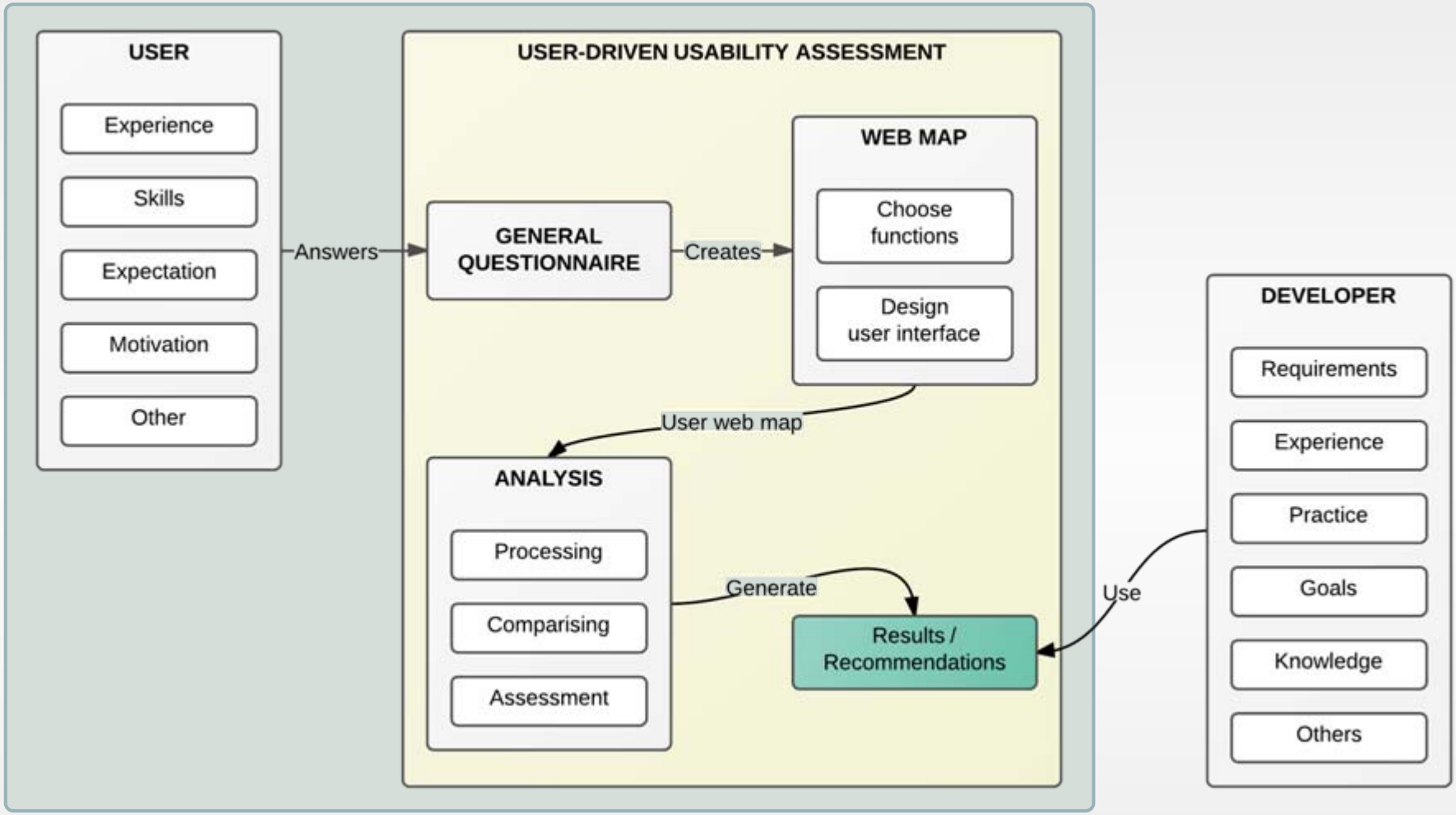
Select or define new functions. Choose main and additional functions

Select or choose float layout

Select menus, place functions to the desire menu place

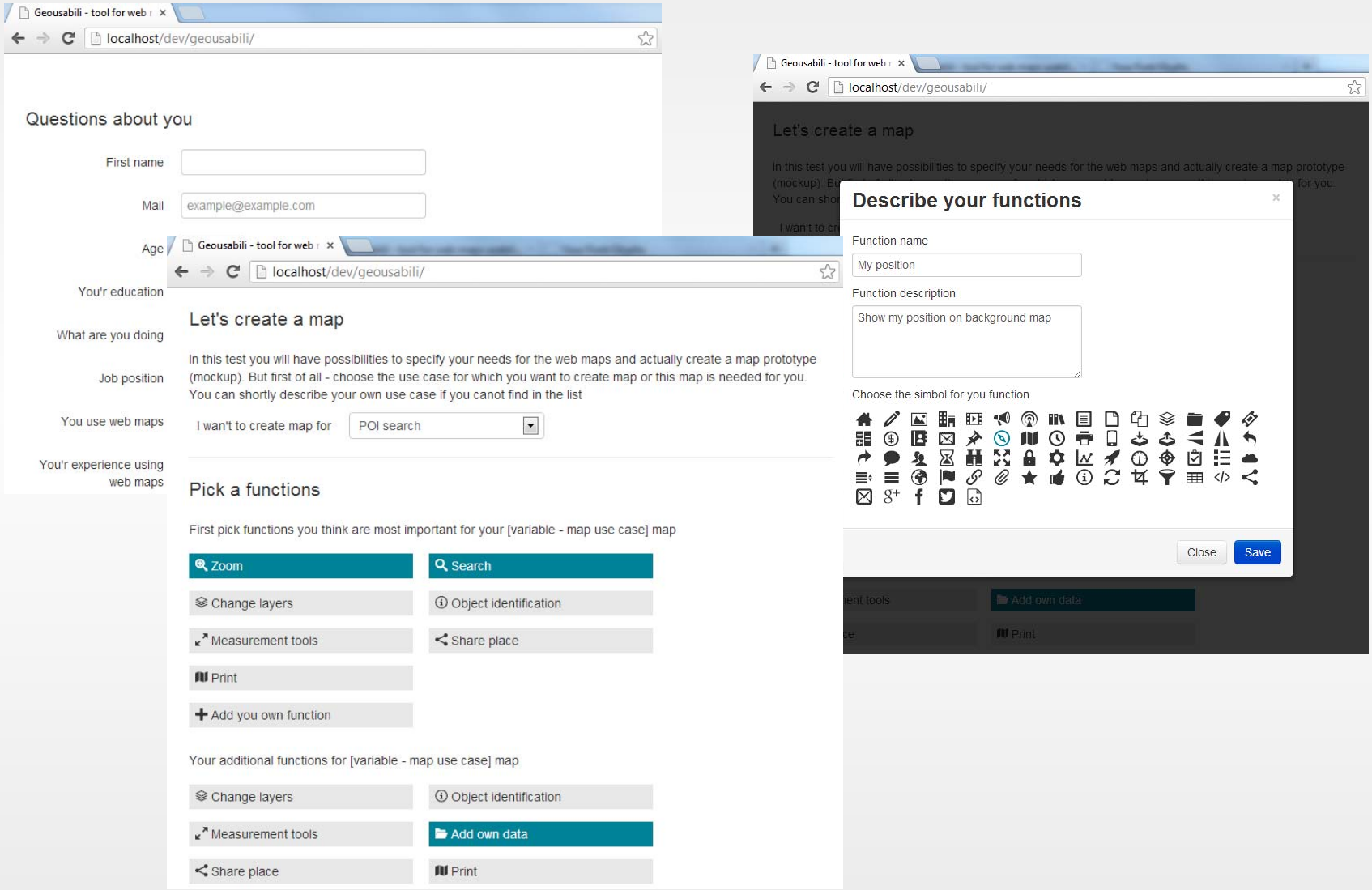
Style GUI: elements, colors, etc. Define background map type and style

User-driven usability research approch

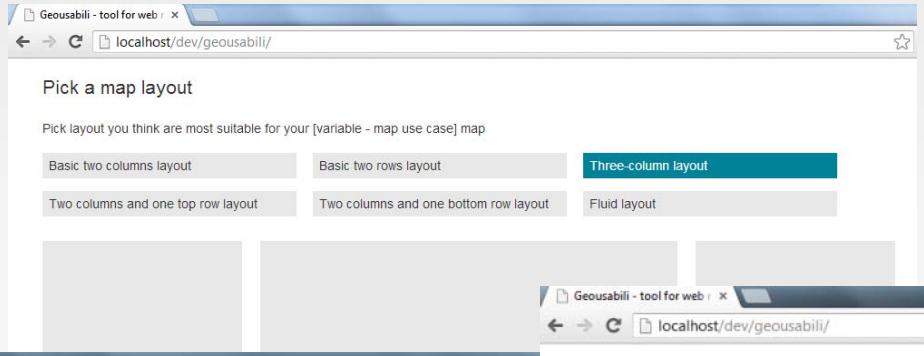


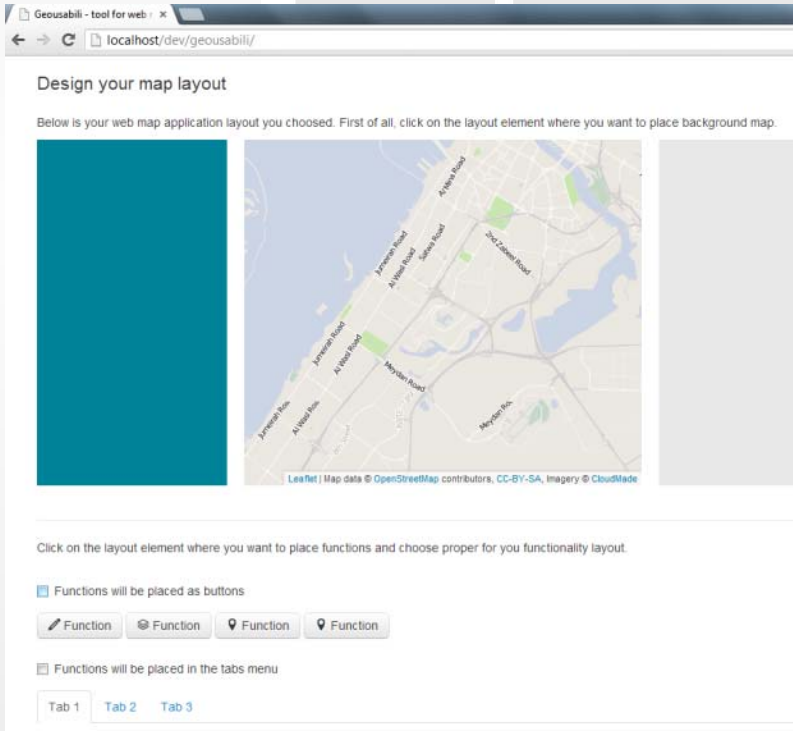
Usability quality guidelines based on users needs.

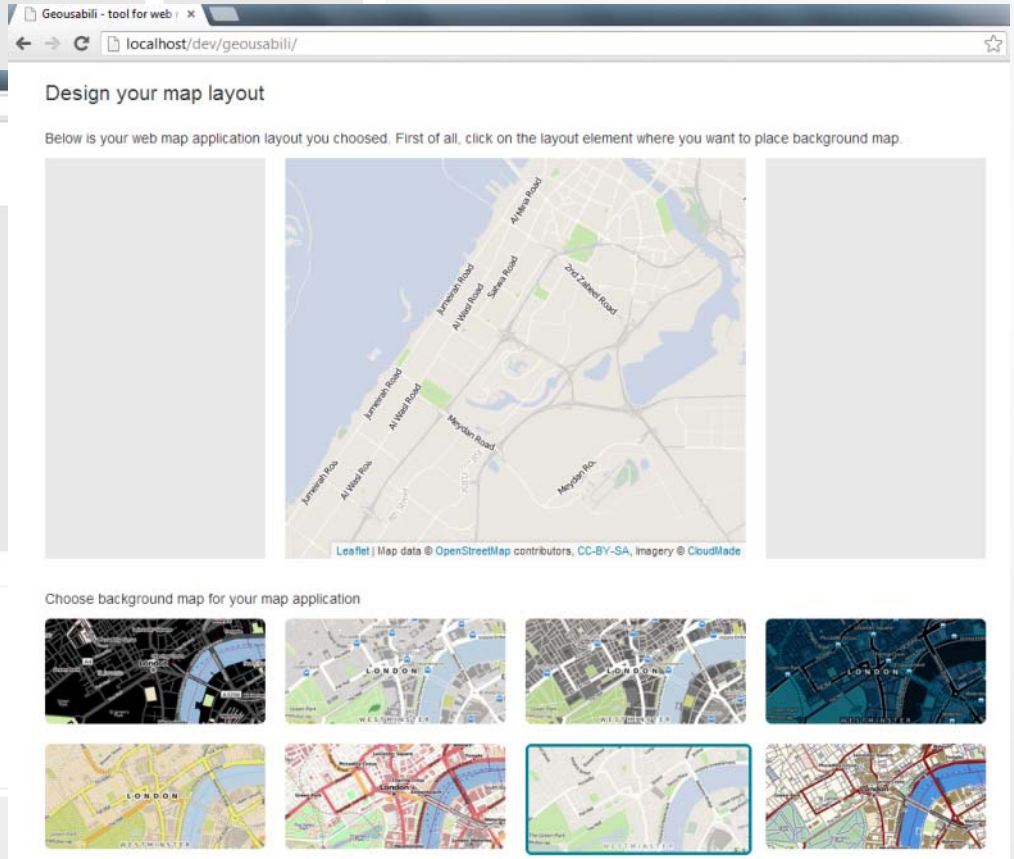
CartoUsabily - web application to implement user-driven usability research



CartoUsabily - web application to implement user-driven usability research







Research results of user-driven usability assessment would provide a possibility to determine the following:

1.How the user sees optimal user's interface for the implementation of different tasks.

2.How the user applies his usability knowledge for map development and what is possible source of this knowledge.

3.What is the connection between user's characteristics and the complexity of the developed interface.

4.Do the users have a formed one GUI image.

5.Possibilities to personalize maps functionality and GUI for different users groups.

FUTURE WORKS AND RESEARCH POSSIBILITIES

User-driven usability assessment methodology development process contains of 4 main stages:

1. The reasoning of methodology development necessity ☑
2. Forming the theoretical and practical base ☑
3. Development of web based research application ☑
4. Perform case study ☐

Thank You! Your questions?

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