

GeoAdapta, a Web GIS platform for Implicit Feedback Analysis in Location-Based Services

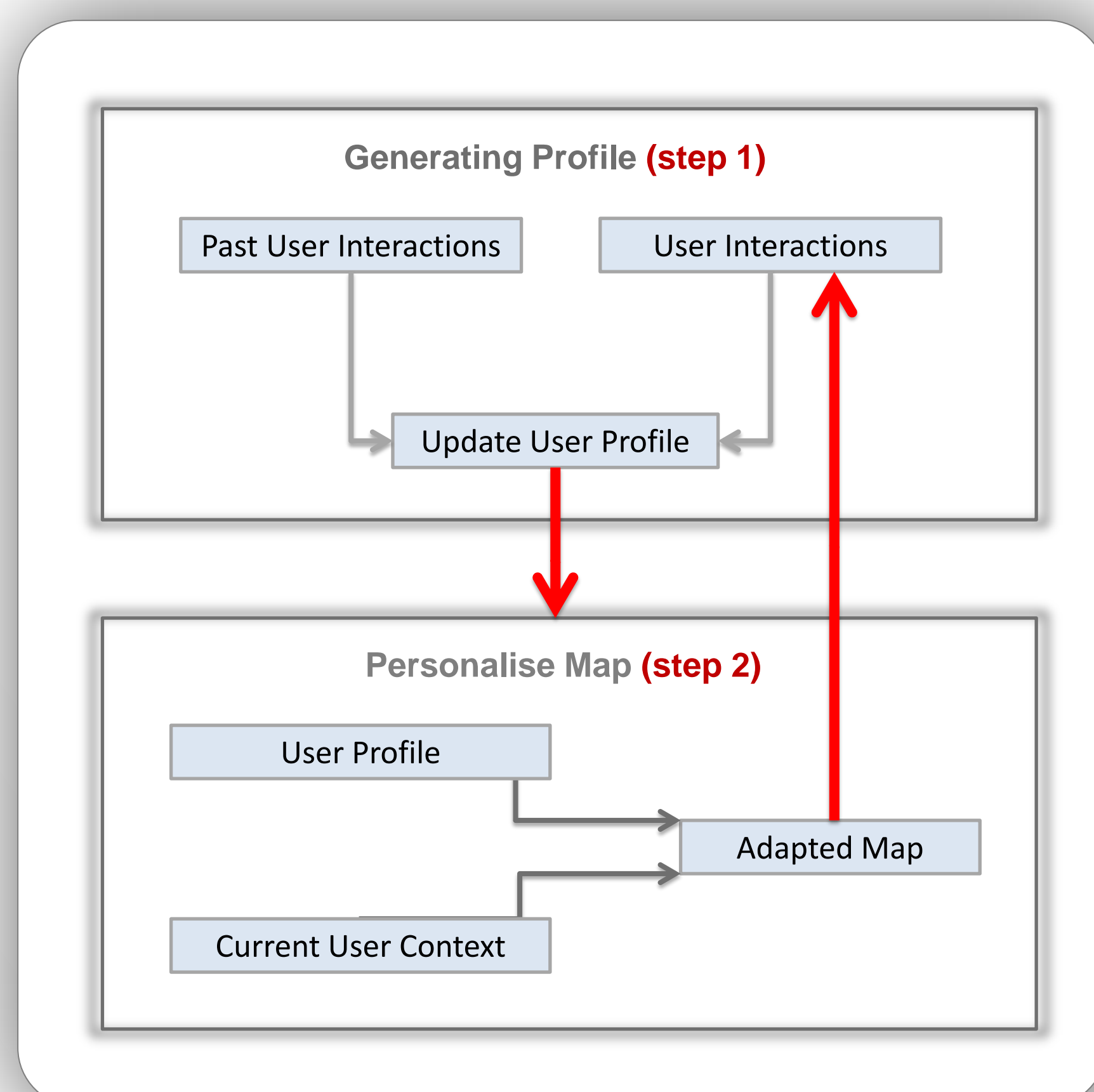
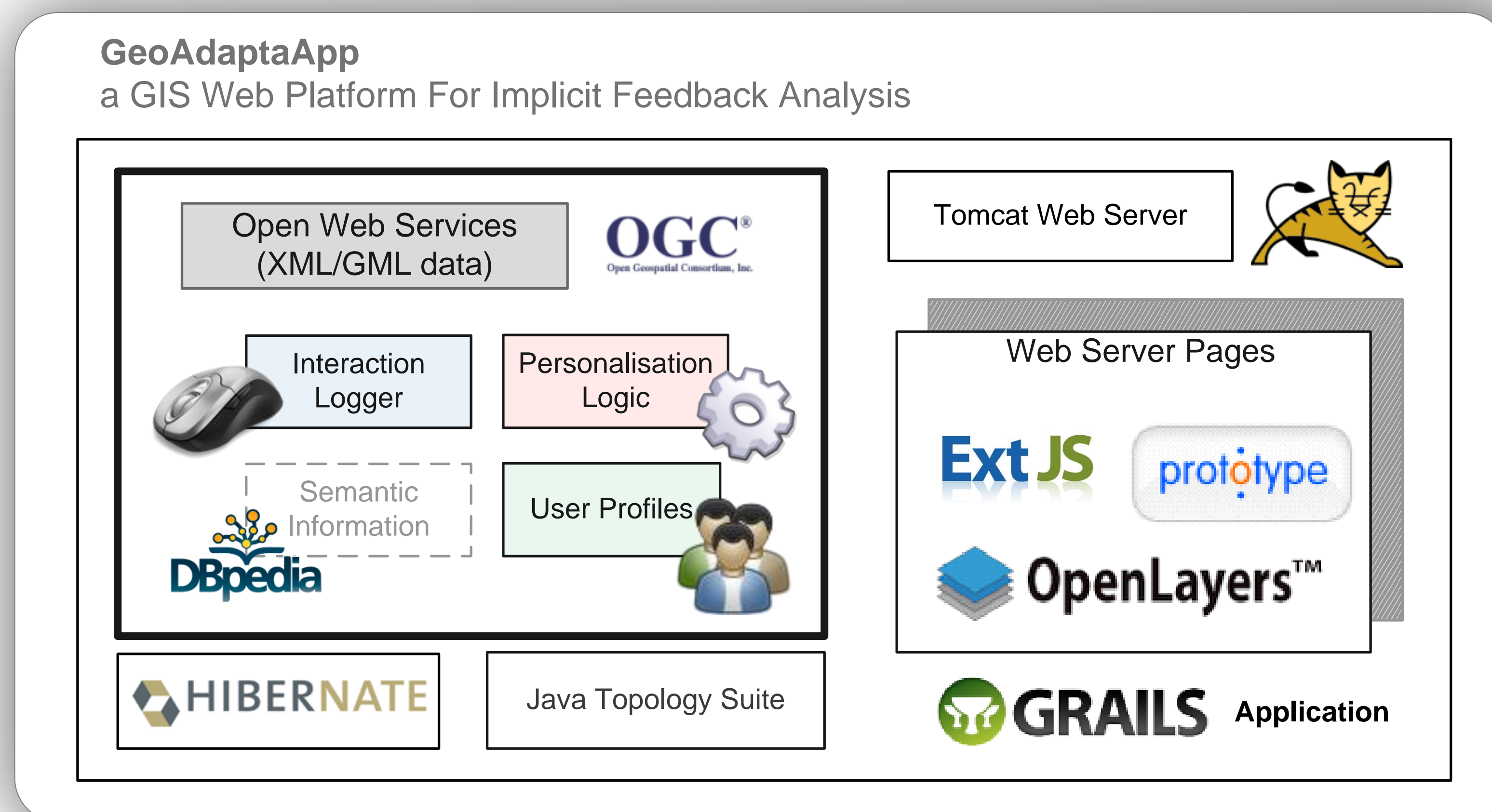
Andrea Ballatore, PhD Student, andrea.ballatore@ucd.ie

Michela Bertolotto, PI, michela.bertolotto@ucd.ie

School of Computer Science and Informatics, UCD

Motivation

- Provide Web open platform for studying **Spatial Implicit Feedback** to reduce **Information Overload**
- GeoAdapta Core services:
 - User Profiles**: encode user's spatial interests
 - Interaction Logger**: save all interface events in user profile
 - Personalisation Logic**: run personalisation algorithms
 - Semantic Information**: exploit geo-ontologies (*work in progress*)

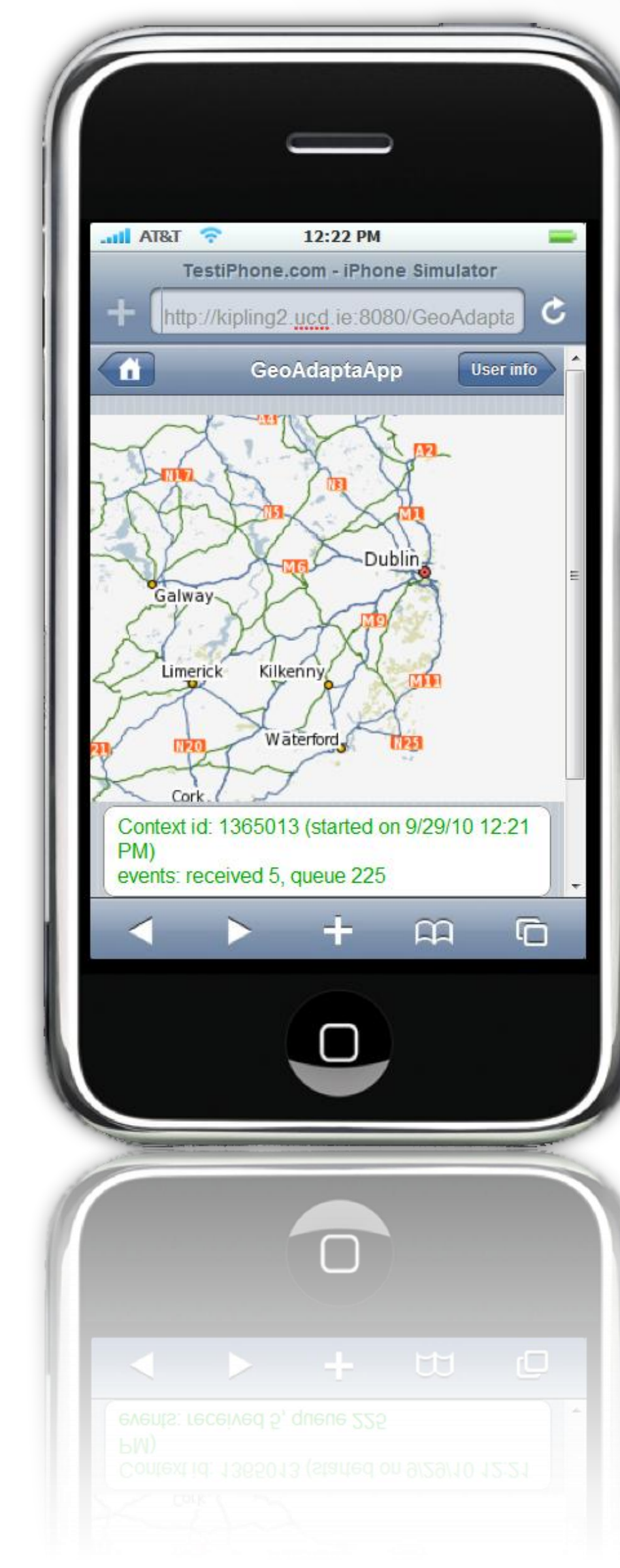
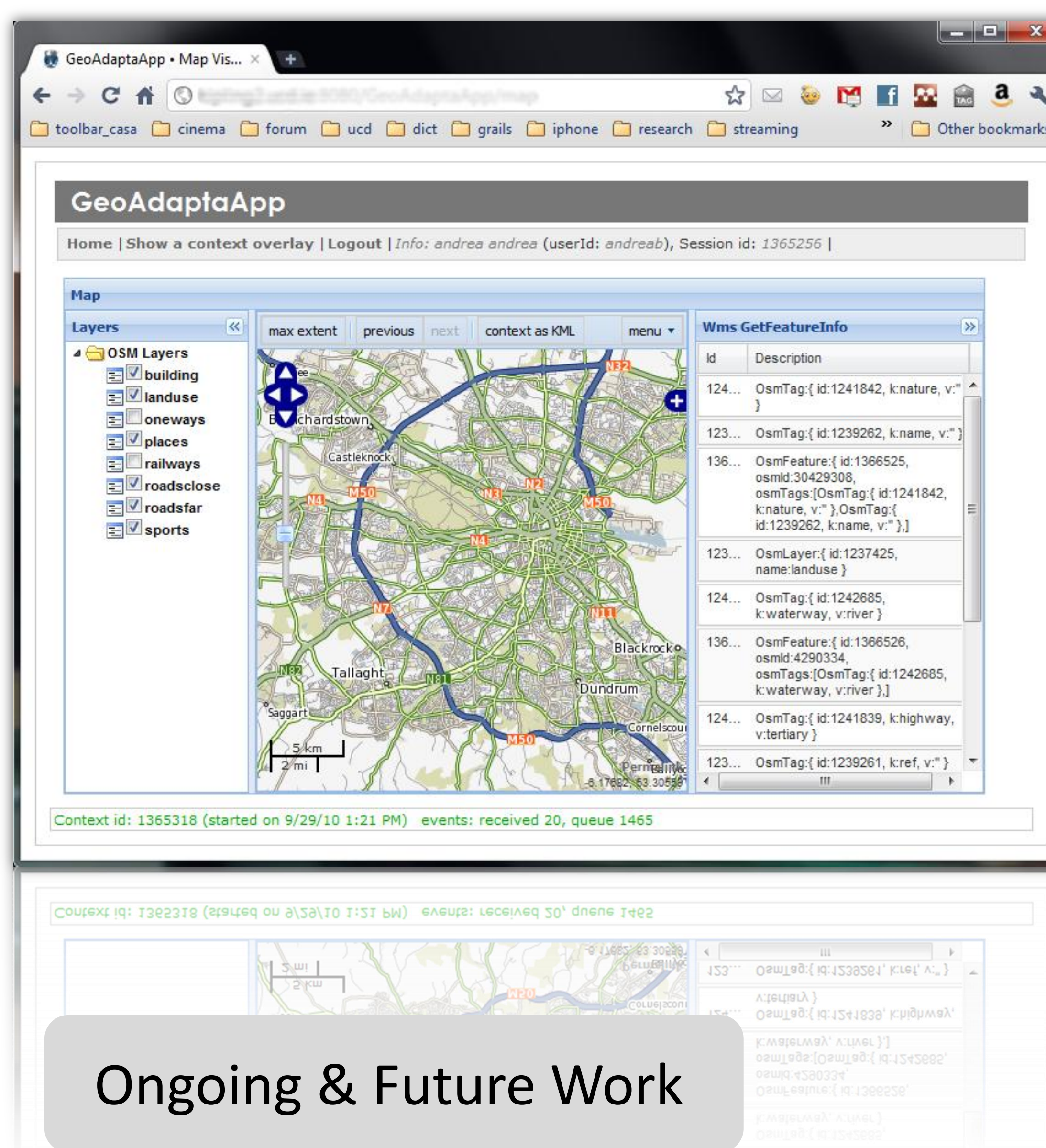


Approach

- Iterative personalisation process
- Monitor **user interactions**, **contexts** and **habits**
- Step 1**: Build **user profiles** encoding knowledge about their spatial habits/preferences
- Step 2**: Generate **adapted map** by combining user profile and current user context

Web Interface

- Uses Open-Source libraries to build standard interactive **Web maps**
- Runs on any modern **Web browser**
- No software installation needed
- Desktop/laptop version** with layer panel and data browser (left)
- iPhone version** with touch navigation (right)



Ongoing & Future Work

- Semantic Personalisation**: exploit semantic power of geo-ontologies for improved personalisation and group profiling
- Spatial Cognition**:
 - Eye tracking**: study eye/gaze behaviour on Web maps
 - Cognitive issues in **touch interfaces**

