

Geogames@UJI

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<http://www.geogames-team.org/>

Workshop at Universitat Jaume I

February 23-24 2016, 9:30-17:00

ESPAITEC II, Sala multiusos, 2nd floor, Castellón de la Plana, Spain

<http://smart.uji.es/index.php?room=UB1206SM>

Geogames are location-based games which differ in many respects from classical console games. Most importantly, they use the geographic position of the players as a central element of the game mechanics which is why they can be employed as effective spatial gamification tools. Geogames induce their players to physically visit places which they otherwise would not visit and to engage in place-related activities which they otherwise would not engage in. The workshop combines a geogame design course on the first day with a geogame programming lab on the second day. Although the two parts complement each other, some participants may choose to attend only one.

Agenda

Day 1: GEOGAME DESIGN

Location-based games

The geogame design process

Game flow balancing & game relocation

Documenting your first geogame design

Day 2: MOBILE GAME SOFTWARE DEVELOPMENT

Building a native Android application

Displaying maps

Querying and working with public geographic data Triggering location-based events

On and offline routing

Building a location based game

Using agent-based simulation to substitute outdoor field tests

Cristoph Schlieder: Geogame design course

The course introduces the participants to the design process of a geogame. It gives an overview of successful applications of geogames to tasks such as promoting tourist sites, enriching learning experiences, and collecting spatial data. Lessons learned from different geogame projects are discussed using a model of the game design process. The course focuses on two challenges of spatial gamification. Firstly, at the level of ludic design, the locomotion behavior of players turns out to have a crucial impact on the game flow. It is shown how the game mechanics can address this issue. Secondly, at the level of narrative design, the relocation of a game from a place where it has been successfully installed to another place requires a spatial analysis in order to identify where changes of game items might be necessary. The participants will engage in different activities such as play-testing a geogame, relocating a geogame to a new geographic environment, and drafting a geogame design document.

The course addresses everybody interested in designing a geogame, in particular students with a background in geomatics. Some of the activities involve interacting with web-based software tools. Participants are asked to bring their own notebook computers to the workshop. No software installation is required.

Short Bio

Christoph Schlieder is Chair of Applied Computer Science at the University of Bamberg, Germany where he leads the research group on computing in the cultural sciences. His research interests are in semantic information processing and the application of semantic approaches to problems from the cultural sciences. Much of his scientific work puts an emphasis on spatial modelling. He has widely published on technical topics including qualitative and diagrammatic reasoning, preferred mental models, spatial constraint solving, and mobile assistance systems. Since 2004 he designs and analyzes geogames, that is, location-based games played outdoors on mobile devices. He believes that games are not just part of our cultural heritage but that they also offer a unique way of accessing our spatial environment.

Thomas Heinz: Geogame programming lab

Mobile app development constitutes the last, but definitely not the least important, phase in the process of creating a geogame. The lab introduces into implementing geogames as native Android apps. No prior experience with Android is required. However, participants should be familiar with Java programming or another object-oriented programming language. Topics covered by the lab include: the location-based game architecture, displaying maps in a native Android app, querying open geographic data, triggering location-based events, and different forms of routing needed in games.

The lab addresses participants with programming experience, in particular students with a background in computer science. Participants are asked to bring their own notebook computers to the workshop. Please, install Android Studio. Refer to <http://developer.android.com/sdk/> for details. In case someone is having problems with the installation, we provide assistance on the day before the lab, that is, Feb 23, after the geogame design course.