MAP DESIGN FOR A MULTI-PUBLISHING FRAMEWORK - CASE MENOMAPS IN NUUKSIO NATIONAL PARK

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BACKGROUND AND OBJECTIVES

The paper describes the map design process of the MenoMaps–project, which aims to 1) create new kinds of maps for supporting outdoor leisure activities, and 2) to carry out research on the utilization of multi-publishing in a cartographic context. The idea behind a multi-publishing service is that the service is able to deliver different kinds of outdoor maps through a number of channels and at varying scales and designs from a single data core. The aim of the map design process for the MenoMaps service was to create a map series of Nuuksio National Park for different use contexts, scale levels and publishing channels sharing a uniform cartographic design.

APPROACH & METHODS

The data core utilizes integrated data sources, including the Finnish topographic and map databases of the National Land Survey of Finland, as well as datasets from the Nuuksio National Park test environment of the Finnish Geodetic Institute, including high-resolution orthophotos and digital terrain models based on airborne laser scanning (LIDAR). In contrast to traditional national park cartography, the multi-publishing framework and the context-awareness set new challenges for the map design. A holistic design approach was needed for all of the scale levels, use contexts and channels, and all of the design decisions were subordinated to the possibilities and restrictions of the multi-publishing framework.

RESULTS

The presentation summarises the design process and gives examples of the in-house developed map design for so-called Topographic, Relief, Forest, Orthophoto and Winter maps. The challenge in designing maps for a context-aware multi-publishing framework is to adapt the design to a number of publishing channels and, at the same time, take into account the different needs of the users. The results raises findings related to interactivity and dynamics, colour models and spatial resolution of the different publishing channels.

CONCLUSION AND FUTURE PLANS

The map design process in the MenoMaps project confirmed the fact that the multi-publishing framework for a map service emphasises the role of the art in cartography as well as the specific essence of maps compared with general graphical illustrations and pictures. Since legibility and the clarity of the maps must be preserved, symbol, colour, and typographic design have to be tailored for all channels, scale-levels, and use-contexts separately. Future research is needed to improve the map design aimed at specific user groups.