User Support in electronic, cartographic Media.

A Model for the Development of interactive maps demonstrated on a Mobile Mapping Application.

Abstract:
Within the scope of the text a development model for electronic, cartographic media is presented with the objective of a design that meets task- and activity-specific requirements of interactive mapping systems. This is done against the background that interactive functions of maps can easily be created using multimedia development tools so that interactive maps can be used in concrete tasks and applications. This is demonstrated on a mobile mapping application for soil mapping.

But under the radical change of the technical basis for map development and in conjunction with the integration of user requirements the map making process changed thereby. In order to discuss and establish a suitable methodology within the discipline, an engineering model is proposed, which suggests three phases of system design for interactive map development.

This is to ensure a development process of cartographic systems, like electronic atlases or mobile mapping systems, which is not alone related to the development tool used but is rather supported by a tool independent method for system design. For this reason attention is paid to the fact that development tools in information technology are fast-moving and manifold and that a system design on a tool level can not be translated to a different development environment. The proposed model for a cartographic system design therefor combines a methodology which integrates the steps of Analysis, Modeling and Design as the development process.

Referring to field mapping as an area of application a task model is deduced from an requirement analysis first. It is used as a basis to define media and user interaction on a conceptual level which is translated to the system model of the mapping software GISPAD in the design phase. In the end the implementation of the concept is discussed on the basis of a system prototype for soil mapping.