Results of the Public Usability Testing of a Web-Based 3D Cadastral Visualization System

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SUMMARY

The visualization of cadastral parcels in 3D is a challenge, since legal boundaries are, in many cases, invisible in the real world; so how can we properly represent something that is not visible to our eyes? This paper uses the results from research looking into problems of occlusion and ambiguous perception (in terms of position, size and shape) of objects in the context of 3D cadastre visualization. The exploration of specific interaction techniques is essential to overcome these issues. After an initial internal usability test (with colleagues/ friends of the developers) our 3D Cadastres web-based dissemination prototype was improved. Next a public usability test is carried out to obtain feedback from different groups of professional users (legal, survey, ICT backgrounds). Usability is meant in terms of effectiveness and efficiency of the system and users' satisfaction. The test users were subdivided into groups according to different professional domains and expertise. During the test, the users are asked to perform a series of tasks typical of cadastral systems. Each task is accompanied by a description to give the users some context. Then, each user is asked to answer a questionnaire about his or her experience. The results are used to extract general feedback. The outcome of the usability test is crucial to point out the detected limitations in this early stage of the prototype development. Design changes can then be made according to the feedback of the test users. In this paper we present the main results of the public usability test of the 3D Cadastres web-based dissemination prototype.

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