

THE POSSIBILITIES OF FUNCTIONALITY RESEARCH OF INTERACTIVE INTERNET MAPS

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While the needs of interactive Internet maps to solve geographical tasks in the society are urgently growing and the technologies are constantly improving, researches of user interface become one of the tools that can ensure the application of effective functionality in order to ensure quality communication. Functionality can be describe as possibilities of the interface applicability for the user's spatial data management needs, also as basis of interactive using process of Internet map. So functionality becomes one of the main interactive maps quality indicator, that can be measure to identify effectiveness of maps technologically parameters.

In this paper the author introduces and analyses 4 classic functionality research techniques (monitoring, examination, feedback registration, experiment) that are determined based on the analysis of scientific literature, and suggests 2 new (qualimetry, conversion) that are based on personal research. The main aim of analysis is to help define the most important advantages and disadvantages of research methodologies while seeking to reveal the proportion of execution costs and results received for the improvement of map functionality. Additional aim is theoretical, i.e., to structure the possible functionality research methodologies and to make assumptions for the creation of unified methodology of interactive Internet maps.

First part of this paper is intended for functionality framework creation that describes types of interactive maps and their functions groups. By identifying and grouping functions to map types the author refers to an analysis of 9 interactive Internet maps. 3 main requirements were set for the objects of analysis: variety of function set, thematic and trustfulness. The grouping of functions according to the nature of their application and linking with map types allows analyse functionality research technique more complex also functionality framework gives basics parameters for assessment of this techniques applicability of results.

Second part of paper is intended for analysis of suggested 6 functionality research techniques. The author suggests distinguish 4 main indicators that would allow to describe in general the weak and strong features of research techniques: length of the research, costs of research organization, objectiveness of research, applicability of results. The functionality research technique assessment results shows that techniques that are not based on direct user research but those that are based on quality analysis of functional elements operation (cases of qualimetry and experiment) are more optimum to research functionality. In the mean time, for technological functionality direction to research, it is effective to implement research techniques with mathematical expression that allows the execution of research of project map version and to determine the problems of its application and operation.