

# **DEVELOPMENT OF APPROACHES TO DEFINE WEB SITE STRUCTURE**

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The problem of misunderstanding the definition of web site structure and related definitions is discussed. On one hand, the problem source is found both in difference between practices of English terminology and Russian and Ukrainian terminology. On the other hand, the issue is caused by different types of web-design practices. The three approaches to understand the problem were offered: spatial, functional and role-based. The most appropriate way of understanding of the web site structure definition is offered.

The research is aimed to formulate and substantiate approaches for more accurate understanding of the concept of “structure of the web site” and describe the contents of a number of derivative concepts for the development of websites (in web design).

The area of the problem is in web sites development and web design.

The subject under consideration is the web site structure.

The premise of the problem goes from different aspects of web site structure in meaning of its derivatives. It is common practice in web design (and in Russian and in Ukrainian terminology particularly) to use some related treatments of web site structure – physical structure and logical structure (logical schema), internal structure and external structure. While the physical structure is considered generally as artifact of technical details, the logical structure or logical schema is considered mostly as artifact of web design. Both technicians (like system administrators) and developers (like web designers) are involved in establishing web site structure in their particular way. Such misunderstand of web site structure begets the problem of accurate definition of web site structure and its derivatives. So we used three approaches to clarify the meaning and the purpose of “web site structure” as a concept: spatial, functional and role-based. The spatial approach led us to typical schema of web site as a physical structure mapping mostly (see Fig. 1). The functional approach discovered the complexity of logical structure (schema) and its appearance in particular passive and active content in web browser. Also the functional approach allows one to understand the formation for visitors of mental structure of web site. The role-based approach gave us the aspects of web sites structure which are meaningful for the most common user groups.

Therefore, to characterize web site in terms of logical structure, external or internal structure, understanding the context of their application is required. So, under the structure of the website it is preferably to be understood the whole set of models/schemas and methods of handling of content, including physical structure, logical structure (logical schema), a conceptual scheme and a design (as a page layout). It becomes clear the difference in understanding the logical structure (logical schema) from the points of view of different user groups. This yields the need of complement logical structure with the structure of modules, structure of components, structure of views, content structure, structure of users and their credentials, etc. The use of term “external structure” of web sites is considered to be inexpedient because of its ambiguity – page layout sounds better to describe the appearance of the web site in web browser. The use of term “internal structure” of web sites can be possibly used as server-side view contrary to client-side view of web site.

Keywords – web site structure, logical schema, physical structure, internal and external structure, web design, spatial approach, functional approach, role-based approach.