

## **Modeling complex processes, navigations, and user interface in web applications**

### **ABSTRACT**

In comparison to basic web information which mainly provides static information within minimal interaction aspects, there is a need for web application to contain more complex and specific information throughout its domain structure. Web application has significant information compositions such as its domain processes, users' interaction, content structures, dynamic navigation links, and user interface presentation. Thus, designing and modeling web application requires extra attention and meticulous efforts. In this paper, we present Com+HDM (Comprehensive Hypermedia Design Method for Complex Process Modeling), a comprehensive and systematic web design method to support all aforementioned characteristics in the context of web application design practices. Com+HDM has been shown particularly useful in modeling flow of complex processes involving complex interaction between web users and the application. Specific modeling elements are provided to facilitate designers in organizing and integrating specific information at high level views to produce expressive design models on the domain structure. We will describe in details on how Com+HDM can be used to design a specific web application example, throughout the processes requirements and design models, in order to highlight the internal design strengths of this approach.

**Keyword:** Web application; Web design processes; Complex process modeling; Navigation structures; User interfaces