A development process meta-model for Web based expert systems: The Web engineering point of view

Similar to many legacy computer systems, expert systems can be accessed via the Web, forming a set of Web applications known as Web based expert systems. The tough Web competition, the way people and organizations rely on Web applications and the increasing user requirements for better services have raised their complexity. Unfortunately, there is so far no clear answer to the question: How may the methods and experience of Web engineering and expert systems be combined and applied in order to develop effective and successful Web based expert systems? In an attempt to answer this question, a development process meta-model for Web based expert systems will be presented. Based on this meta-model, a publicly available Web based expert system called Landfill Operation Management Advisor (LOMA) was developed. In addition, the results of an accessibility evaluation on LOMA – the first ever reported on Web based expert systems – will be presented. The idea behind the presentation of the accessibility evaluation and its conclusions is to show to Web based expert system developers, who typically have little Web engineering background, that Web engineering issues must be considered when developing Web based expert systems.