

Abstract

Modular web content management systems (WCMS) are widely adopted software platforms that facilitate the creation of web applications through a process of configuration and assembly of add-on modules. Although WCMSs have been used in a variety of application domains (e-commerce, news) no clear guidance as to when it is suitable to use a WCMS could be found. This work proposes a methodology to evaluate the suitability of a WCMS in a particular context. This is done by evaluating the suitability indicators (capability, effort and ease of implementation) for a given WCMS application. The methodology evaluates each indicator per application requirement. Capability is evaluated on a Yes/No basis. Effort is evaluated using effort level, a relative indicator of effort. Effort levels are defined in terms of increasing effort, varying from 0 (feature present in the product) through to 5 (feature requires a custom module to be written). Ease of implementation is evaluated using a qualitative measure (easy, moderate or difficult) of the implementation difficulty. The methodology has been successfully validated through the development and evaluation of a web application for a school within a university faculty. In this instance the WCMS capability was evaluated at 100%, as all requirements could be implemented. The effort level analysis showed 16% of requirements were present by default in the core product, 22% required some configuration of the core product, 32% required a single add-on module to be installed, and 30% required multiple add-on modules to be installed. The ease of implementation analysis showed that 86% of requirements were easy, 7% moderate and 7% difficult. The analysis is presented in order to demonstrate the operation of the methodology. Further data would be needed to extrapolate general trends. With repeated use of the methodology in various contexts, it would be possible to build up a useful reference for those considering the use of a WCMS. In addition, this data would permit analysis of overall strengths and weaknesses of a particular WCMS.