Chapter V

Making Knowledge Management Systems Open: A Case Study of the Role of Open Source Software

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Abstract

This chapter presents an action research-based case study of the development of pKADS (portable knowledge asset development system), an open source, desktop-based knowledge management (KM) tool, implemented in Java and targeted at government and nongovernment organizations. pKADS was a collaborative project involving Business Information Systems, University College Cork, Ireland and the United Nations Population Fund (UNFPA), and was funded by the government of Ireland. Development of the application took just three months, using an agile development approach and some reuse of existing open source code. The chapter
discusses the background to the pKADS project and prior UNFPA KM efforts, the technical and conceptual architectures of the pKADS application, the roles played by open source components and open data standards, the rationale for releasing pKADS as open source software, and the subsequent results. Future research, in the form of developing open source, Intranet/Internet-based KM tools for the Government of Ireland—eGovernment Knowledge Platform (eGovKP) is also briefly discussed.

Introduction

In the latter half of 2003, the United Nations Population Fund (UNFPA) and Business Information Systems (BIS) at University College Cork, Ireland, funded by the Government of Ireland (through the Department of Communication, Marine and Natural Resources (DCMNR)) undertook a collaborative research and development project to create pKADS (the portable knowledge asset development system), an open source desktop application that captured the core functionality of the UNFPA’s internal knowledge management system (KMS). Development of the application took just 3 months, using an agile development approach and some reuse of existing open source code. The finished product was launched by UNFPA, BIS, and the Government of Ireland, at the World Summit on the Information Society, Geneva, Switzerland in December 2003. This chapter presents a case study of the pKADS project.

The remainder of the chapter is structured as follows. Knowledge Management and Knowledge Management Systems in the Knowledge Society presents a brief discussion of four key background concepts: the knowledge economy, knowledge management, knowledge management systems, and open source software. The Portable Knowledge Asset Development System (pKADS) Case Study describes case environment and findings of the study: the history behind the pKADS project, prior UNFPA KM efforts, the technical and conceptual architectures of the pKADS application, and so forth. In this section, particular emphasis is placed on the roles played by open source components and open data standards, on the rationale for releasing pKADS as open source software, and on the subsequent results of this decision. The Future of pKADS and Related Work describes the future of pKADS, and also related research building on pKADS in the form of developing open source, Intranet/Internet-based KM tools for the Government of Ireland eGovernment Knowledge Platform (eGovKP). The final section concludes the study. Additionally, the chapter includes recommendations for a variety of activities, exercises, and further reading.