

The War for Talent: Identifying Competences in IT Professionals through Semantics

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ABSTRACT

In current organizations, the importance of knowledge and competence is unquestionable. In Information Technology (IT) companies, which are, by definition, knowledge intensive, this importance is critical. In such organizations, the models of knowledge exploitation include specific processes and elements that drive the production of knowledge aimed at satisfying organizational objectives. However, competence evidence recollection is a highly intensive and time consuming task, which is the key point for this system. SeCEC-IT is a tool based on software artifacts that extracts relevant information using natural language processing techniques. It enables competence evidence detection by deducing competence facts from documents in an automated way. SeCEC-IT includes within its technological components such items as semantic technologies, natural language processing, and human resource communication standards (HR-XML).

Keywords: Competence Evidences, IT Professionals, Knowledge Management, Semantic Technology, Talent Identification

INTRODUCTION

The use of IT solutions has become a key issue in many organizations worldwide. Organizations currently use multiple IT/IS solutions to support their activities at all management levels (Trigo, Varajao, & Barroso, 2009). Software costs as a percentage of total computer system costs continue to increase; while associated hardware costs continue to decrease (Huang & Lo, 2006). Software development is a collab-

orative and knowledge intensive process where success depends on the ability to create, share and integrate information (Walz et al., 1993), among other factors. Software development is an intense human capital activity, especially intense in intellectual capital (Sommerville & Rodden, 1996). Although the importance of human factors has been widely recognized as key for software engineering, researchers should put a larger focus on the humans involved in software engineering than what has been done to date (Feldt et al., 2008). However, poor management of human factors in technical

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