Chapter 1.10
Basics to Develop Web Services for Human Resources

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INTRODUCTION

In this article certain pillars as basics are presented being necessary to develop Web services (W3C, 2007) supporting human resource (HR) processes like assessing, hiring, modeling information systems, staffing, and so forth; by the help of these Web services. Current HR information systems in general do not adequately support tasks related to cross-organizational or global skills and competence management. In the following, the topic is presented which relates to knowledge management especially to "communities of practice," as well as related topics such as e-skills and ICT (information and communication technologies) professionalism; the latter currently being broadly discussed by experts in Europe.

HR managers of a company or an organization are challenged through the need to formalize skills requirements and to continuously monitor the skills demand inside the company. Obtaining ICT skills are not a one-time event. Technological change advances at a high speed and requires that skills need continually to be kept up-to-date and relevant (The European e-Skills Forum [ESF], 2005).

During the last years, new concepts have emerged which intend to empower learners and individuals to steer learning processes to a large extent on their own. Learning objectives tend to be increasingly individual in character (ESF, 2005).

In this context, providing an appropriate infrastructure which supports the continuing professional development (CPD) of employees is today a key issue. CPD processes require a respective infrastructure encompasses besides qualifications,

skills/competence frameworks and body of knowledge, as well required standards for competence, skills, and appropriate career and development services. Standards encompass educational and industry-oriented performance standards which in turn are expressed preferably through a common language as competence and skills standards. The governance and administration of the CPD process require the availability of flexible and personalized certification services which offer the formal validation of individuals' learning achievements independent of where and how they were acquired.

Recruitment and internal mobility are typical use cases to identify the right people wanted, by matching their assessment outcomes with job positions requested. In case a company needs new ICT competence, the HR manager in charge has to draw up a job advertisement, which describes the required knowledge, skills, competences (KSC), and qualifications for the specific job role. The information is generally structured in a job profile, which mirrors ideally the companies core competences; but how can this be efficiently done or supported by a concept method and/or tool, how can be potential employees be addressed independently of their national origin? Further scenarios can be derived from Figure 1.

Noticeably, information about requirements is exchanged amongst various players along the value chain. Hence, looking at ICT skills requirements necessitates looking at the belonging processes as a whole. This relates to a common language which allows exchanging information amongst the various players involved and exchange of data stored in respective HR-systems. The latter, in particular, motivates data services which facilitate sharing of data required for the execution of tasks along the HR processes (such as recruitment of ICT professionals). Typically, systems do not have the required interoperability because the applied data models differ in structure and semantics. In the following, we look at how to achieve better interoperability of systems and

Figure 1. Supply and demand of e-skills
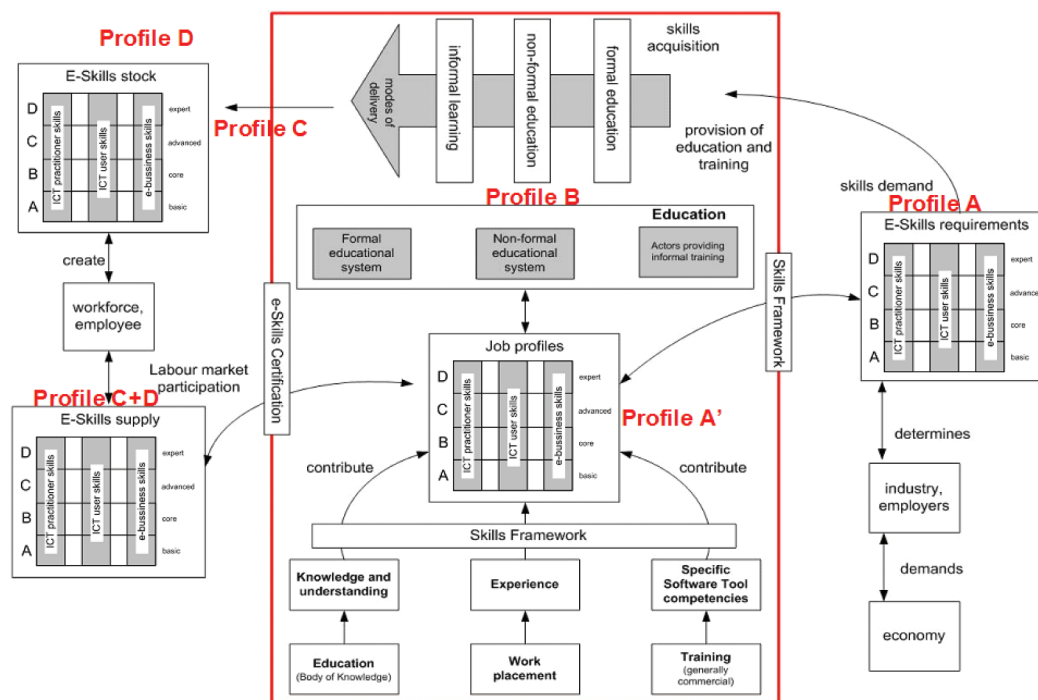
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