Chapter 7
Skills for IT Project Management:
The View From EU Frameworks

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ABSTRACT

IT project management requires qualified staff capable of facing the rapidly changing conditions and even terminology of technology while managing large teams of people where main costs come from human work. A key factor for managing human side of IT is the understanding of the essential feature of people performance: skills. Capability to cope with this highly demanding field should firstly rely on clear and standardized frameworks for skills, not only the technical or hard ones but also the soft or behavioral ones, considered by employers as essential for employees' productivity. This chapter shows how the recent development of frameworks and standards in European Union (e.g. EN16234 or ESCO classification) is enabling the powerful exploitation of open big data from existing skills analysis systems for a more precise and solid determination of recommended skills for IT project management. The analysis will especially focus on the behavioral skills.

INTRODUCTION

Competences, skills, knowledge, job profiles, qualifications or occupations are some of the concepts most commonly used in the present within the IT profession. They can be easily found in all types of information written in e.g. job ads, training courses and CV of jobseekers. Ensuring that these terms are used consistently with a common language is essential for a correct match of needs between employers, job candidates and training providers. When the authors analyzed the case of European Union (EU), the main idea is that transnational coordination is a primary objective so this requires a common frame for all actors in ICT employment: that is a key, urgent and vital factor for the mobility of ICT people across borders. Consequently, EU has promoted different ICT competence frameworks to support a better coordination of the ICT job market where, as it happens in many other developed countries, companies are generally experiencing a shortage of qualified workers to cover their needs of digital transformation of businesses (Hüsing et al., 2015).

The efforts of EU in this area has led to a set of results in the shape of frameworks or competence models. The most relevant ones are the European e-Competence Framework (e-CF) (EN 16234-1, 2016), the European Competence, Skills, Qualification and Occupations (ESCO) classification (European Commission-1) and the European Foundational Body of Knowledge (BoK) (Oliver, 2012). These references try to capture the essence of the labor market and the opinion of stakeholders which can provide a standardized view of roles and occupations to all players in the talent field of ICT.

As a consequence, we can summarize that the aim of this chapter is to exploit these valuable assets of the above-mentioned skills frameworks to analyze which are the recommended skills profiles for those working in IT project management. This approach has the advantage of cumulating the work of hundreds of experts who worked on these models before. Moreover, as they establish a common language and model for working with the elusive field of skills categorization, these models enable the exploitation of sources of big open data to complement the profiles while capturing the reality of labor market. Our interest is not limited to the most technical skills required for effective IT project management. Employers have highlighted their interest in behavioral or non-cognitive skills as expressed in (Newton, Hurstfield, Miller, Page, & Akroyd, 2005): "employers are less demanding of technical skills, considering them trainable, if candidates exhibit employability and soft skills, and positive attributes" as stated citing the study by (Winterbotham, Adams, & Keuchel, 2002). As a consequence, we will analyze the so-called non-cognitive skills (NCS) by presenting the application of the exhaustive research done in the Skills Match project (www.skillsmatch.eu), customized to the area of IT project management. In the project, these skills are the cornerstone of a complete system for employability: the users can create their skills profiles, compared to the profile of target occupations and see which are the gaps where they can work with recommended online training resources to develop their weak points.

This chapter is organized as follows. The first section is devoted to the general underlying concepts and methodology of the work. The next three sections describe and analyze each of the mentioned frameworks (e-CF, ESCO and BoK) under the perspective of the IT project management occupations, profiles and skills. The next section illustrates how the impact and utility of these models within the IT project management area is. The authors will devote a full section to the NCS after that and the chapter will finish with a final section with conclusions and future works.

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