

Chapter 14

Present, Past and Future of IT Careers, a Review: From the Local Pyramid to the “Flat World”

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ABSTRACT

Careers have experienced an evolution parallel to society's constant progress. Careers have migrated from hierarchical and unidirectional models within a single organization, to models that provide non-linear or vertical movement within the hierarchy, movement between organizations, changes in employer-employee relationships, etc. Furthermore, careers have transferred responsibility from organizations to individuals. Due to these changes, careers have been transmuted from the organizational pyramid to a globalized, boundaryless, and one-dimensional scheme. In addition, within the IT sector, external factors such as gender, organizational culture, differences in requirements between technical and nontechnical positions, among others, have also impacted career management. This chapter presents a review of the changes that have been undertaken in career management from a general point of view, to the peculiarities of the IT sector, and ultimately encompass some conclusions extracted from research.

INTRODUCTION

The lack of definitions for professional careers in the field of Information Technology (IT) has been highlighted (P. C. B. Lee, 2001). Several studies

recommend making workers responsible for planning their own professional careers (Chesebrough & Davis, 1983), however, significant initiatives such as People-CMM (Curtis, Hefley, & Miller, 2009) point out the importance of establishing

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a professional structure with careers defined, documented and driven by organizations.

In the traditional career system, a career was considered as an upward linear progression in one or two firms or as a stable employment within a profession (Levinson, 1978; Schein, 1978), that Kanter (1991) refers as the bureaucratic career. In the IT field, such career path describes an itinerary from junior programmer to CEO (Chesebrough & Davis, 1983). In this career path, an employee starts programming, works as a technical specialist such as a software or systems engineer, and eventually becomes promoted to senior technical consultant or specialist. Such path will enable programmers to achieve remarkable promotions, wage, and status in an organization while remaining in a technical, non-managerial role (Chesebrough & Davis, 1983). Thus, two broad categories appears: technical and managerial (Ives & Olson, 1981). As a response to this model, a dual ladder approach arises (Ginzberg & Baroudi, 1988). The Dual Career Ladder was created to provide another route for promoting employees exhibiting or possessing particular technical skills and/or education above and beyond the norm of a typical career. A third career ladder is the Protean coined by Hall and Mirvis (1996) and later adopted in IT field by Reich and Kaarst-Brown (1999).

Nevertheless, the present-day scenario is quite different. These traditional views do not reflect the multi-faceted career pattern present in contemporary society (Hall, 2004) transcending organizations boundaries due to globalization and technologies effects, among others. Moreover, current IT workers titles are considered less important; skills and experience are reckoned to be more relevant than titles in determining rank and salary (Evans, 2004). Alexander (1999) supports this viewpoint by arguing that definitions of IT job titles, such as programmer, programmer analyst, systems analyst and project manager, are “fuzzy”, varying in a wide manner from one company to another. In this new and exciting scenario, this chapter must address the following

two main questions. Are there opportunities for traditional careers in nowadays IT? And, what are the insights for IT careers in the future? This chapter aims to explore IT career experiences and initiatives from the past and present and tries to depict the opportunities and challenges of IT careers in the future.

The remainder of the chapter is structured as follows: first, IT career concepts from a general viewpoint are introduced; second, IT career issues and solutions are explained; third, the future of IT careers is analyzed; fourth, career opportunities and challenges are assessed; and finally, discussion, conclusions and future works about this chapter are presented.

BACKGROUND

Professionals usually follow the next succession of life stages: school and further education, work and retirement (Elder, 1985; Marshall & Mueller, 2003).

School and Further Education Stage

During the first stage, career development theories suggest that individuals select career fields based on their self-perceptions, values, and beliefs, and these cognitions are developed through experiences in homes, schools and other contexts (Berrios-Allison, 2005; Gottfredson, 1981; Lent, Brown, & Hackett, 1994). In addition, and contrary to the myth, exposure to computers have not proved to be a conclusive factor to attract students towards an IT career; the interest in computers is developed in the same way as other occupations (Messersmith, Garrett, Davis-Kean, Malanchuk, & Eccles, 2008). Nowadays, taking into account the lack of enough prepared professionals in the IT sector, attracting students to shape tomorrow's labor horizon has become a major concern in educational institutions (Garcia-Crespo, Colomo-Palacios, Gomez-Berbis, & Tovar-Caro, 2009).

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