Chapter 18
Assistive Technology and Human Capital for Workforce Diversity

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ABSTRACT

The purpose of this chapter is not on the varieties of the availability of assistive technologies (AT) and their usages based on individuals' specified disability, so that individuals who require the usage of ATs can be of equal playing field compared to those individuals who do not require the usage of ATs. For information regarding AT and the state of AT in the past, present, and future in the United States, ADA and the like refer to Tran's article titled "Assistive Technology." The purpose of this chapter is beyond the coverage of Tran's "Assistive Technology" article, such that the purpose of this article is on the end results that AT could provide and contribute to the diverse workforce, and the role AT play in relations to workforce development—from an international perspective.

INTRODUCTION

Workforce development has evolved to describe any one of a relatively wide range of national and international policies and programs related to learning for work. This evolution, in part, is the end result of the term being frequently misunderstood: workforce development consists of job training only. Harrison and Weiss (1998, p. 5) defined workforce development as the "constellation of activities from orientation to the work world, recruiting, placement, and mentoring to follow-up counseling and crisis intervention". However, inequality in the workplace, specifically promoting equal rights to employment for members of discriminated groups with disabilities (Kriegal, 2002; McClain, 2002) has become a widely talked about phenomenon in the business world, and is visible from an international (Jakovljevic & Buckley, 2011) paradigm. Hence, the purpose of this chapter is not on the varieties of the availability of assistive technologies (AT) and their usages based on individuals' specified disability, so that individuals who require the usage of ATs can be of equal playing field compared to those individuals who do not require the usage of ATs. For information regarding AT and the state of AT in the past, present, and future in

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the United States, ADA, and the like, refer to Tran's (2015a) article titled *Assistive Technology*. The purpose of this chapter is beyond the coverage of Tran's (2015a) *Assistive Technology* article, such that, the purpose of this article is on the end results that AT could provide and contribute to the diverse workforce, and the role AT play in relations to workforce development—from an international perspective.

BACKGROUND

Historically speaking, from past to present, for many developing countries, legislation regarding the employment of individuals with disabilities has been criticized due to its ineffectiveness (Schall, 1998; Siegal, 2001). In particular, according to Jakovljevic and Buckley (2011), the legislation has had little or no impact on the employment status of people with disabilities (Agocs, 2002; Brett, 2000; Conlin, 2000; De Jonge, Rodger, & Fitzgibbon, 2001; De Laurentiis, 1991; Hignite, 2000; IRS, 1998; McGregor, 1991; Robitaille, 2002; Saskatchewan, 2000; Schall, 1998, Thomas, 2002). When addressing the needs of employees with disabilities, the Act and the Code both include the term *reasonable accommodation* (Tran, 2015a). Reasonable accommodation (disability accommodation) is any modification or adjustment to a job or to a working environment that will enable a person from a designated group to have access to or participate or advance in employment (Department of Labor, 2002; Tran, 2015a). It includes acquisition and modification of equipment and devices, as well as any necessary training. These devices and equipment are collectively known as assistive technologies (AT).

HUMAN CAPITAL FOR WORKPACE DIVERSITY: ASSISTIVE TECHNOLOGIES (AT)

Human capitals [cultural and global (Tran, 2014a)] include labor market skills, leadership skills, general education background, artistic development and appreciation, health, experiences, and intelligence [behavioral, emotional, cognitive, cultural (CQ), general (IQ), metacognitive, motivational, and social (Tran, 2014a)]. Human capitals are essential asset in most communities, both domestic, and international. Traditional approaches to human capital development emphasize individual responses. Quite often, individuals bear the cost, and the burden of obtaining education and training. Although many government programs have been developed to provide training, they tend to focus on specific populations and often are not well connected with local labor market conditions, as compared to nongovernmental that may have different types and levels of access and accessibility for various populations: the abled and the disabled.

Disability

There is much debate about the best way to define *disability*. The issue of definition has also been further complicated by the links to individual eligibility criteria for program and financial assistance or to legal implications. Furthermore, disability is difficult to define because it is a multi-dimensional concept with both objective and subjective characteristics. When interpreted as an illness or *impairment*, disability is seen as fixed in an individual's body or mind (Tran, 2014b; Tran, 2015b). When interpreted as a social construct disability is seen in terms of the socioeconomic, cultural and political disadvantages resulting from an individual's exclusion. Furthermore, people with disabilities, advocacy groups, legal and