

# Chapter 11

## Human Resource Development and Technology Integration

**Jia Wang**

*Texas A&M University, USA*

### ABSTRACT

*In the information age, technology is rapidly becoming an integral part of organizational life. Ever increasing technology applications have significantly reshaped the day-to-day practices of human resource development (HRD). This chapter explores the role of technology in HRD. Specifically, it addresses three issues. First, it identifies the challenges that technology has brought to HRD in the twenty-first century. Second, it analyzes the impact of technology on HRD practices with a focus on emerging HRD practices in virtual environments. Third, it provides insights into the future of virtual HRD in training and development, organizational development, and career development.*

### INTRODUCTION

Modern-day organizations are facing a number of challenges: intensified globalization, increased market competition, changing workforce demographics, rapidly changing technology and e-business, just to name a few. Of these, technology has perhaps made the most profound impact on organizational practices. Take a moment and reflect on the following questions: How many work-related emails do you receive on average, every day? How often do you receive electronic invitations to meetings, social events, free Webinars or

professional development workshops? What types of automated reminders do you set up to remind you of an approaching deadline for a project or mandatory online training? Do any of your work meetings occur on social networking sites (e.g., Facebook™, LinkedIn™, Twitter) or in virtual worlds (e.g., SecondLife™ or ActiveWorlds™)? When was the last time you used Skype to communicate with a colleague or business partner in another part of the country or world? Did you turn to Blog, Wiki, online discussion forums or chat rooms to exchange knowledge? How many times did you use the Internet to search for new information? Does your company use the Intranet

DOI: 10.4018/978-1-4666-1601-1.ch011

and/or Listserv for internal communication or social networking sites for recruitment, sales and marketing, operations management, and customer support? What's your reaction to these questions? Are you surprised or perhaps even overwhelmed? As Carroll and Wager (2010) so aptly summarized, "technology has further revolutionized the ways in which many companies do business, forcing a paradigm shift for management that has resulted in new and innovative approaches to carrying out business with customers, employees and other stakeholders."

For the field of human resource development (HRD)—whose primary goal is to improve organizational effectiveness by developing individual knowledge, skills, and expertise—technology has significant implications. Not only has it provided exciting opportunities for HRD, it also presents difficult challenges for HRD professionals in promoting individual and organizational learning and performance improvement (Benson, Johnson, & Kuchinke, 2002). For example, almost a decade ago, Hronec (1993) projected that the role of information, in driving and evaluating initiatives related to HRD, is more significant than ever before. As a result, the successful application of HRD interventions and tools has become increasingly dependent upon the use of technology.

Despite wide recognition of the importance of technology to organizations, there has been little systematic research on its impact on HRD practices. As Bennett (2009) noted, "how important new technologies have been to HRD is an open question" (pp. 362-363). Furthermore, discussions about technology in HRD, while not devoid in the field, have not been adequately emphasized. Consequently, how organizations integrate technology into their work processes remains unclear. To fill these gaps, this chapter explores the role of technology (primarily Internet and Web-based) on the practice of HRD. Specifically, it addresses three issues. First, it identifies the challenges which technology has brought to HRD in the twenty-first century. Second, it analyzes the impact of tech-

nology on HRD with a special focus on emerging HRD practices in virtual environments. Third, it provides insights into the future of virtual HRD.

## **BACKGROUND**

Current literature on the role of technology in the field of HRD (e.g., Benson et al., 2002; Githens, Dirani, Gitonga, & Teng, 2008) suggests that it is increasingly becoming a critical component of not only the day-to-day practice of HRD, but the effective completion of organizational tasks. The increasing emphasis on knowledge creation and technology application in HRD has led to the burgeoning concept of virtual HRD (VHRD). What follows is a discussion of the notion of technology in organizations, as well as two emerging concepts in HRD which point to a continuing evolution of the role of technology in HRD—VHRD and Web 2.0.

## **Technology**

Information technology (IT) has grown exponentially, and globally, during the past two decades, leading to changes in nearly every field of practice, including HRD. And the term *technology* has been loosely used in our language. Technology is generally viewed as the application of the sciences to the objectives of industry, business, government systems, and human endeavors. As a process, technology is a "socio-technical means of defining and solving problems" (Swanson & Holton, 2001, p. 382). In the field of HRD, technology has been defined as open space technology (Owen, 1997), or human performance technology (International Society for Performance Improvement, 2000), or technology-based training (Kruse & Keil, 2000).

The technology revolution has brought forth an evolving and increasing set of IT tools for use in the digital workplace: e-mail; mailing lists; instant messaging; bulletin boards; newsgroups; Internet search engines; and Web databases are

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/human-resource-development-technology-integration/67152](http://www.igi-global.com/chapter/human-resource-development-technology-integration/67152)

## Related Content

---

### Influence of the Organizational Culture into IT Department Structure, User Relationships and Motivators: Brazilian Cases

Ângela F. Brodbeck and Henrique J. Brodbeck (2011). *Managing IT Human Resources: Considerations for Organizations and Personnel* (pp. 307-324).

[www.irma-international.org/chapter/influence-organizational-culture-into-department/53121](http://www.irma-international.org/chapter/influence-organizational-culture-into-department/53121)

### Leveraging Workforce Diversity using a Multidimensional Approach

Aisha S. Taylor, Keith James and Adam Murry (2012). *Handbook of Research on Workforce Diversity in a Global Society: Technologies and Concepts* (pp. 203-224).

[www.irma-international.org/chapter/leveraging-workforce-diversity-using-multidimensional/67059](http://www.irma-international.org/chapter/leveraging-workforce-diversity-using-multidimensional/67059)

### An Evidence-Based Journey of Organizational Change and Development Through Human-Centered Design

Simon Lau (2019). *Evidence-Based Initiatives for Organizational Change and Development* (pp. 685-692).

[www.irma-international.org/chapter/an-evidence-based-journey-of-organizational-change-and-development-through-human-centered-design/225195](http://www.irma-international.org/chapter/an-evidence-based-journey-of-organizational-change-and-development-through-human-centered-design/225195)

### The Impact of the Entrepreneur's Educational Level on the Employment Creation by New Small and Medium Enterprises

João Zambujal-Oliveira and Luis Contente (2014). *Effective Human Resources Management in Small and Medium Enterprises: Global Perspectives* (pp. 183-200).

[www.irma-international.org/chapter/the-impact-of-the-entrepreneurs-educational-level-on-the-employment-creation-by-new-small-and-medium-enterprises/93208](http://www.irma-international.org/chapter/the-impact-of-the-entrepreneurs-educational-level-on-the-employment-creation-by-new-small-and-medium-enterprises/93208)

### Venture Investing in Voice-Over-IP (VOIP): The NexTone Communications Case

Stephen J. Andriole (2009). *Technology Due Diligence: Best Practices for Chief Information Officers, Venture Capitalists, and Technology Vendors* (pp. 175-190).

[www.irma-international.org/chapter/venture-investing-voice-over-voip/30181](http://www.irma-international.org/chapter/venture-investing-voice-over-voip/30181)