Sharan B. Merriam & Laura L. Bierema

Adult Learning

Linking Theory and Practice

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CONTENTS

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PREFACE

Adults are learning all the time. Whether we are searching the Internet to learn more about a recently diagnosed health problem, having a coworker show us how to navigate a new reporting procedure, or taking classes to get a certificate or a degree, learning is firmly embedded in our work, family, and community activities. The sites and programs where adult learning takes place are also endless—from human resource development programs at work, to seminars and workshops sponsored by libraries, museums, religious institutions, hospitals, and so on, to more formal programs offered by schools, colleges, and universities—and all of these can be accessed in online environments. At the heart of such a diverse field, and what unites us as practitioners, is the adult as a learner. And the more we can understand our own learning, the better we can be as practitioners who design and facilitate learning activities for adults.

Most likely you are reading this book because you are interested in knowing more about adult learning. However, unlike Malcolm Knowles who, as director of adult education at the Boston YMCA in the 1940s, could not "find a book that would tell me how to conduct a program of this sort" (1984, p. 2), and added "that although there was general agreement among adult educators that adults are different from youth as learners, there was no comprehensive theory about these differences" (pp. 3–4)—there is now voluminous literature on adult learning. This

literature ranges from "how-to" guides, pamphlets, handbooks, and books, to scholarly theoretical discussions to well-designed research studies.

Purpose and Audience

So, with all of these resources on adult learning available, why this book? A quick survey of some of the books published in the last 10 years reveals that most focus on a particular aspect of adult learning such as motivation (Wlodkowski, 2008); andragogy and its application to workplace learning and human resource development (Knowles, Holton, & Swanson, 2011); critical thinking (Brookfield, 2012b); experiential learning, (Fenwick, 2003); dialogic education (Vella, 2008); and transformative learning (Taylor & Cranton, 2012). Others are highly theoretical (Illeris, 2004b; Jarvis, 2006a) or theory and research intense (Merriam, Caffarella, & Baumgartner, 2007). What we felt was missing from the literature on adult learning is a book that gives an overview of the major theories and research in adult learning in language that those new to adult education can understand, and at the same time points out applications of these ideas to practice. We have presented adult learning theory to the reader mindful that our readers are themselves adult learners as well as practitioners who design and facilitate educational programs for adults. In keeping with our goal of writing a book that is reader- and practitioner-friendly, we have included activities and resources at the end of each chapter for personal and instructional use.

There are three intended audiences for *Adult Learning: Linking Theory and Practice*. The primary audience for our book are students in adult education and human resource development programs in the United States and Canada. All of these programs have a core required course in adult learning. Whether these are undergraduate, masters, or doctoral-level programs, typically this course is the student's first introduction to adult learning. A second audience for our book are graduate students in professional preparation programs whose work may involve the education and training of adults, such as school administrators, public health personnel, social workers, corporate consultants and trainers, the military, counselors, government administrators, higher education faculty and administrators, and community educators. A third and growing audience are students in undergraduate and graduate programs in other countries. These programs go by different names such as Lifelong Learning, Social

Education, Adult and Professional Education, Community Education, and so on, but all offer a course on adult learning.

Overview of Contents

Based on our many years of teaching adult learning courses and also conducting seminars and workshops on adult learning, we have organized this book according to what we have found "works" in terms of acquainting readers with adult learning theory and practice. The first two chapters review (1) the present context of adult learning, and (2) the emergence of specific theories of learning. Chapter 1, Adult Learning in Today's World, sets the framework for the book by examining the forces that make continued learning in adulthood so important. Globalization, the knowledge society, technology, and demographic changes are shaping the landscape of adult learning today. Lifelong learning is indeed becoming a reality with adults engaging in learning in formal, nonformal, and informal settings. We define who the adult learner is, and review characteristics of participants in formal learning settings. Chapter 2, Traditional Learning Theories, begins with a brief exploration of the concept of learning, then moves historically through the development of learning theories beginning with the earliest scientifically developed learning theory, behaviorism. Going in somewhat chronological order, the following orientations/perspective/theories are presented: behaviorism, humanism, cognitivism, social cognitivism, and constructivism. These five are considered traditional learning theories and are foundational to what we have come to understand about adult learning.

Again, going loosely in order of their appearance in our field's literature, the next three chapters present major, foundational theories of adult learning: andragogy, self-directed learning, and transformative learning. Chapter 3, Andragogy—The Art and Science of Helping Adults Learn, is a review of Malcolm Knowles's theory, later characterized as a set of assumptions, which distinguishes adult learners from pre-adult learners. Andragogy is the oldest and best-known set of principles used to guide instruction of adult learners. In this chapter we review the theory and latest research, and offer a number of examples of application. Chapter 4 is on self-directed learning. One of the assumptions of andragogy is that because adults are self-directing in their work, family, and community lives, they can also be self-directing in their learning. Along with andragogy,

self-directed learning developed as one of the major foundational pillars of adult learning theory. Reviewed are various models of self-directed learning and ways in which self-directed learning has been applied in practice. Chapter 5 is on Transformative Learning, which joins andragogy and self-directed learning as a major theory explaining learning in adulthood. In the last twenty-five years we have seen a burgeoning of theorizing and research around the notion that learning can profoundly change the way adults view themselves and act in the world. Beginning with Mezirow's breakthrough formulation of transformative learning and the research and development around his theory, we then review other conceptualizations of transformative learning, discuss promoting and evaluating transformative learning, and close with a review of several issues yet to be resolved in promoting this type of learning.

The next four chapters explore several dimensions of adult learning, all of which are important to a full understanding of the adult learner and the process of adult learning. Chapter 6, Experience and Learning, looks at the central role of adult life experiences in generating as well as acting as resources for learning. Beginning with formative works of Dewey, Lindeman, and Kolb, and moving to contemporary conceptualizations including several models from adult educators, we explain how life experiences and learning are integrally related. Also reviewed is the role of experience in reflective practice, in "authentic" real-life experiences as explained in the learning theory of situated cognition, and in communities of practice. Chapter 7, Body and Spirit in Learning, addresses the holistic nature of learning. More than a cognitive activity, learning also involves acquiring knowledge through the body, which is called somatic or embodied learning, and for some adults, learning may also include a spiritual dimension. Chapter 8, Motivation and Learning, is a review of what we know about the motivation to learn, its cultural and biological components, and how meeting needs and motives through learning becomes reinforcement for continued learning. We also offer suggestions as to how readers can identify their own motivations for learning as well as how to take motivation into consideration when planning learning activities with adults. Chapter 9, The Brain and Cognitive Functioning, reviews how the brain actually functions in learning. We begin the chapter with a short overview of how the brain works, then go on to discuss some of the exciting new work in neuroscience and learning. Several dimensions of cognitive functioning including memory, intelligence, cognitive development, and wisdom are also reviewed—all with an eye to how learning maximizes each of these functions.

In the last three chapters we explore in more depth the importance of context to learning. Although this theme is present throughout the book, we thought the context of learning was so crucial to really understanding adult learning that we have featured it in these last three chapters. Chapter 10, Adult Learning in the Digital Age, addresses the pervasiveness of technology in our lives, a factor that both engages and distracts our learning. How do we maximize this medium in learning, and at the same time enable adults to be savvy consumers of massive amounts of information at the tap of a keyboard? Understanding how adult learners engage with technology and how that technology is shaping their learning is critical to our role as adult educators in helping adults navigate this new learning context. Just as technology defines the context of our learning, so too do the social and global contexts of the 21st century. In Chapter 11, Critical Thinking and Critical Perspectives, we situate critical thinking in its broader context, considering its philosophical underpinnings and contemporary counterparts. The chapter begins with a discussion of what it means to be critical and introduces critical theory, critical thinking, and critical action as a framework for learning and teaching. Our final chapter, Chapter 12, Culture and Context, Theory and Practice of Adult Learning, considers how culture and context affect learning, explores the role of theory and practice in adult education, and offers a framework that integrates culture, theory, and practice.

Although in our minds we had a rationale for the order of chapters, the chapters can be read in whatever order is most helpful to the particular instructional situation; further, individual chapters can be used in single session workshops and seminars. At the end of each chapter we have a section titled Linking Theory and Practice: Activities and Resources where we have included activities we have used to engage learners in each of the topics. These activities and resources are meant for readers to explore their own learning as well as to use in instructional settings. Finally, each chapter closes with a list of Chapter Highlights where we have captured what we consider to be the salient points or "takeaways" discussed in the chapter.

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We would like to acknowledge the students in our classes as well as participants in our workshops and seminars across the world who have been the inspiration for this book. They have challenged us to think through

how best to engage people in understanding what we know about how adults learn. The order in which we have presented the material in this book, as well as suggested activities and resources have had trial runs, so to speak, with our students and workshop participants. Their candid feedback is much appreciated. We also want to thank the three reviewers of our manuscript whose comments, insights, and suggestions were most helpful in strengthening this book. We also want to acknowledge our editor, David Brightman, and his colleagues at Jossey-Bass who were extremely supportive and helpful throughout the process of bringing this book to fruition. Finally, a special thanks goes to our University of Georgia PhD students and graduate research assistants, Nan Fowler and Leanne Dzubinski. Nan assisted us in the early stages of the book with library research. Leanne accessed resources for our book, tracked down references, assisted in editing, and saw to the technical matters of getting the book ready for the publisher. To all of you, including our family and friends, we thank you for your support and encouragement.

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CHAPTER ONE

ADULT LEARNING IN TODAY'S WORLD

"Anyone who fails to learn . . . is regarded as *oku eniyan* (the living dead)," says an African proverb that captures not only how embedded but how necessary learning is in today's world (Avoseh, 2001, p. 483). Indeed, the daily lives of most people on the planet require constant learning, not just in a classroom, but as we go about our everyday activities. The way we communicate with others, deal with personal and family problems, conduct our work, and build our communities, all require us to learn new information, new procedures, and new technologies.

In this opening chapter we take a look at the social context of learning today, a context characterized by globalization, the knowledge age, technology, and demographic changes. We then turn to a focus on *adult* learners, how their life situation differs from that of children, and how participation in even formal learning activities has continued to grow over the years. In the last section of this chapter we describe the various settings where learning occurs, ending with a brief discussion of the global concept of lifelong learning.

The Social Context of Adult Learning

Learning, Jarvis (1987) writes, rarely occurs "in splendid isolation from the world in which the learner lives; . . . it is intimately related to that

world and affected by it" (p. 11). From learning to use the newest version of your smartphone, to dealing with a diagnosis of Type II diabetes, to navigating your city's public transportation system, learning is embedded in the world in which we live. In this chapter we first step back and paint a large backdrop of forces shaping the world today against which we can more specifically address who the adult learner is, and what forms of learning an adult might be engaged in. Factors we see as important for understanding the context of adult learning are globalization, the information society, technology, and changing demographics.

Globalization

Of the many factors affecting our lives today, globalization is often mentioned more than anything else. In fact if you Google the term "globalization," you get more than 40 million "hits," a number that increases daily. The widespread use of the term not only speaks to its many meanings and applications, but to its vagueness. For our purposes, we define globalization as the movement of goods, services, people, and ideas across national borders. Of course for centuries people and goods have moved across national boundaries. What is different today is the speed and intensity of this movement. As Friedman (2011), one of the major commentators of this phenomenon writes, we have moved from "connected to hyperconnected."

What first comes to mind when most people hear the term "globalization" is outsourcing of manufacturing to low-income, low-wage countries. Indeed, something of a scandal arose in the summer of 2012 when it was learned that the U.S. Olympic team's uniforms had been outsourced to China! The economic component also makes people think of huge multinational or transnational companies that operate worldwide and are not held accountable by any single nation-state. The "market economy" underpins this accelerated version of globalization. Today, "corporations not only control the means of production—both economic and technological—but they also control the means of spreading knowledge about their products as they seek to convince the public to purchase what they produce" (Jarvis, 2008, p. 20). Thus, not only goods and services, but information and ideas are brokered across the globe, which in turn creates more demand for goods and services. One writer has wryly observed that the market economy and consumerism dimensions of globalization have resulted in the world becoming "one big shopping mall" (Cowen, 2003, p. 17). The downside of global commerce is the exploitation of workers

worldwide, even children (witness, for example, the May 2013 collapse of a garment factory in Bangladesh killing more than 1100 workers), along with increasing pollution and environmental exploitation. The rise of "corporate social responsibility" campaigns and a movement toward sustainability in the market are closely linked to globalization. Scherer, Palazzo, and Matten (2010) argue that because nations have declining capacity to regulate socially desirable corporate behavior with commerce crossing national, social, political, cultural, and economic borders, it is becoming more incumbent on organizations to bear this political responsibility.

Education itself has become a commodity of the marketplace. Friedman (2005) gives numerous examples of this in his groundbreaking book on globalization titled, *The World Is Flat*. For example, parents in the United States are hiring math and science tutors for their children—that is, they are hiring tutors who are living in India. Students arriving home from school in the afternoon get on the Internet and are greeted by their Indian tutors who are up early to meet their students in real time (and at a considerably cheaper cost than hiring tutors in the States). Students are now consumers who "shop" worldwide for the educational program that best fits their needs and pocketbooks and which promises the results they seek. There is even a growing area of research and writing on what is being called "academic capitalism." Here institutions of higher education become a commercial enterprise in "the pursuit of market and market-like activities to generate external revenues" (Slaughter & Rhoades, 2004, p. 11). So while students may "shop" for their education, colleges and universities are also shopping for students!

The Knowledge Society

Intricately related to the market economy in a globalized world is the "knowledge economy." Companies will locate where there is a workforce with the knowledge and educational system able to sustain and develop the business. For example, the skill and educational base of potential workers was a major factor in Caterpillar, the world's largest manufacturer of heavy construction and mining equipment, which recently chose to locate a new plant in our university's hometown of Athens, Georgia (Aued, 2012). Not only do companies move to where the qualified workers are, but workers also relocate to where they can utilize their knowledge and training. Spring (2008) talks about moving from a "brain drain" phenomenon to a "brain circulation" trend "where skilled and professional workers

move between wealthy nations or return to their homelands after migrating to another country" (p. 341).

The "knowledge economy," or, as it is more often labeled, the "knowledge society," has replaced the industrial society and has great implications for learning and educational systems across the globe and throughout the lifespan. As Dumont and Istance (2010) point out, "21st century competencies" include "deep understanding, flexibility and the capacity to make creative connections" and "a range of so-called 'soft skills' including good team-working. The quantity and quality of learning thus become central, with the accompanying concern that traditional educational approaches are insufficient" (p. 20). They go on to say that "knowledge is now a central driving force for economic activity, and the prosperity of individuals, companies and nations depends increasingly on human and intellectual capital. Innovation is becoming the dominant driving force in our economy and society (Florida, 2001; OECD, 2004; Brown, Lauder, and Ashton, 2008). Education and learning systems, for which knowledge is their core business, are clearly right at the heart of such a mega-trend" (p. 21).

The knowledge society is much more complex than what is implied by the earlier term, "information" society. While we are inundated with bits and pieces of information (note the millions of Google hits for the term "globalization" above), for information to become useful and meaningful, it needs to be weighed, organized, and structured into meaningful units of knowledge; information and data are the building blocks of knowledge. It is with knowledge that we build new insights, new understandings, and even new products, all of which can contribute to a more enriching context for learning. There are some caveats about this seemingly utopian concept of the knowledge society. Some places in the world are so torn by strife, poverty, and illiteracy that a knowledge society has not evolved, leaving these countries far behind and utterly unable to compete in the developed world. And some groups of citizens, discriminated against because of gender, race or ethnicity, disability, or age, are marginalized in their own societies and prevented from meaningfully participating in the knowledge society. "Women," for example, "make up 70 percent of the 1.3 billion absolutely poor, more than half the population of women over age fifteen worldwide are illiterate, and 75 percent of refugees and internally displaced are women" (Merriam, Courtenay, & Cervero, 2006, p. 92).

Everyone is challenged by the speed of change in this knowledge society. Most feel it is no longer possible to "keep up," for according to some estimates, information doubles every two years and World Wide Web

information doubles every 90 days (www.emc.com/about/news/press/2011/20110628–01.htm). Change is at such an accelerated pace that even some of the routine tasks of daily living require new learning. To buy groceries at your local supermarket, for example, you may have to figure out how to automatically scan your items and check out without dealing with a person. Or, you may make your purchases in front of your computer screen, never setting foot in the actual store. Tinkering with your car in your own garage may not be possible without some knowledge of computer diagnostic systems. You can make a banking transaction or check-in at the airport for a flight without ever making human contact. Even our trips to the library can be conducted from the comfort of our homes where we can electronically check out articles and books.

It is also clear that one cannot learn in the first two or three decades all that a person needs to know for the rest of his or her life. Most professional preparation becomes outdated before one gets situated in a career. Hewlett Packard has estimated that what one learns in a Bachelor of Engineering program is outdated or "deconstructs" in 18 months, and for technology-related fields the half-life is even less. Students need to be prepared as self-directed, lifelong learners "for jobs that do not yet exist, to use technologies that have not yet been invented, and to solve problems that we don't even know are problems yet" (Darling-Hammond et al., 2008, p. 2)

Technology

Globalization and the knowledge society are promoted and sustained by communications technology and the Internet. From multinational companies who conduct much of their work through technology-assisted means, to friends in different parts of the world talking in real time over Skype, to social media enabling social change as in the Arab Spring revolution, technology has irrevocably affected how we work, carry out our daily lives, and interact with other people. There is little doubt that the "technology infused lives of today's learners" (Parker, 2013, p. 54) is shaping not only the context of learning, but the learning itself. Even traditional educational systems from elementary through higher education are using technology in designing and delivering curriculum. Teachers in California, for example, are experimenting with the "flipped classroom" where students watch videos for homework, "then go to class to demonstrate their learning" (Webley, 2012, p. 39). Public libraries now loan out e-books. Even prestigious higher education institutions are opening up access to

learning through the Internet. In 2012 Stanford University offered a free online course on artificial intelligence that drew 160,000 students from 190 countries. This experiment has evolved into what are being called MOOCs (massive open online courses). Stanford recently partnered with Princeton, University of Michigan, and University of Pennsylvania to offer 43 courses enrolling 680,000 students (http://www.nytimes.com/2012/07/17/education/consortium-of-colleges-takes-online-education-to-new-level.html?_r=1&src=me&ref=general). Harvard and Massachusetts Institute of Technology (MIT) are engaged in a similar partnership estimating that half a million students would enroll in their free, online courses (http://www.bbc.co.uk/news/business-18191589). Indeed, Friedman speculates that these MOOCs are likely to transform higher education into a credentialing system where participants, rather than getting "degrees" will get "certificates that testify that they have done the work and passed all the exams" (Friedman, 2013, p. SR11).

Technology is also changing how adults learn. Adult basic education programs through continuing professional education are incorporating technology in both the design of curriculum and its delivery. And the field of adult education is becoming particularly attentive to the Net generation, those born between 1981 and 1994. These young adults "bring with them a set of traits that includes familiarity with technology, optimism, ability to multitask, diversity, and acceptance of authority (Bennett & Bell, 2010, p. 417). They are also characterized by "shallowness in reading, lack of critical thinking, and naïveté about intellectual property and information authenticity of Internet resources" (p. 417). And while technology is certainly affecting formal learning, its impact on informal learning, that which we do as part of our everyday lives, is limitless. As King (2010) writes, "Ubiquitous (but not always obvious) informal learning opportunities make it possible for adults to tap the exploding information and learning resources of our times. Informal learning today goes beyond book-based self-study to include a plethora of Web-based, digital, and community resources, along with opportunities for worldwide collaboration with people of similar interests and needs. The world is rich with new learning opportunities—for example, iPods, TV programs, digital radio and virtual simulations—that can fit anyone's schedule and learning style" (p. 421). The availability of massive amounts of information 24 hours a day, seven days a week also challenges us, Bryan (2013) points out, in terms of dealing with information overload and learning how to critically evaluate all this information. The informality of twitter, texting, email, emoticons and so on is also bringing about changes in our language. How do tech-

savvy young people know "what language formats are best suited for the workplace, or to use for technical language in the sciences and math fields, or for scholarly writings, or marketing, and the list goes on and on" (Bryan, 2013, p. 10).

As pointed out earlier, technology cannot be separated from globalization and the knowledge society. However, it is important to note that "although some may say the digital divide has been bridged, visiting impoverished inner-city, small rural, and violence-torn areas around the globe reveals scores of people who do not have access to electricity, technology, and the outside world" (King, 2010, p. 426). Further, it has been estimated that only 12% of the people in the world have computers, and of that, only 8% are connected to the Internet (http://www.miniature-earth.com). There is still much to do to address the basic needs of marginalized people and nations before all can benefit from participation in this digitalized, globalized, knowledge society.

Changing Demographics

Globalization and all that it entails has enabled people everywhere to see the diversity of the world's seven billion people. It is much more difficult for certain societies to be inward-looking and ethnocentric, that is, seeing themselves as the center of, and superior to the rest of the world when we see the diversity of the world on our televisions and computer screens and indeed, even as we are out in our local community. It is enlightening to look at the statistics through an analogy of presenting the world as a community of 100 people, keeping all of the proportions the same as in our world of seven billion. For example, if the world consisted of 100 people, 61 would be Asian, 14 North and South Americans, 13 Africans, and so on. Table 1.1 presents some of these statistics.

Of particular interest to our field of adult education, is the fact that 16.3% of those over 15 years of age would be illiterate, and only seven would have a secondary education, and one a college education. And in reference to our discussion of technology above, 12 out of the 100 would have a home computer (http://www.miniature-earth.com; http://stats.uis.unesco.org; https://www.cia.gov/library/publications/the-world-factbook/). A UNESCO (2008) report concluded: "Equalizing opportunities in education is one of the most important conditions for overcoming social injustice and reducing social disparities in any country . . . and is also a condition for strengthening economic growth" (p. 24). Further, global illiteracy continues to plague the world, especially among women

who make up two-thirds of the 774 million adults lacking basic literacy skills (UNESCO, 2009). So, back to the analogy of 100, almost 11 of the 16 illiterate would be women.

There are other demographic shifts that are of particular interest to adult educators. Many countries, for example, are experiencing a dramatic growth in their aging population. Due to a decline in fertility and an increase in longevity, it is estimated that "in less than 10 years, older people will outnumber children for the first time in history" (Withnall, 2012, p. 650). In 2010 older adults comprised 11% of the world's population and are expected to grow to 22% in the year 2050 (World Economic Forum, 2012). As can be seen in Table 1.2, this growth is uneven but all

TABLE 1.1 IF THE WORLD CONSISTED OF 100 PEOPLE

61 Asians	21 live on less than $2 (U.S.) a day
14 Americans (North and South)	14 are hungry or malnourished
13 Africans	16.3 are illiterate (15 years of age and above)
12 Europeans	
1 Australian (Oceania)	Only 7 are educated at the secondary level
70 Non-White	Only 1 would have a college education
30 White	If you keep your clothes in a closet and food in a refrigerator, you are richer than 75% of the entire world population
67 Non-Christian	
33 Christian	
8 are 65 years and above	
12 are disabled	
30 are Internet users	
12 have a home computer	

Source: http://www.minature-earth.com; http://stats.uis.unesco.org; www.cia.gov/library/publications/the-world-factbook/

TABLE 1.2 PERCENTAGE OF POPULATION AGED 60 AND OLDER

	2010	2030	2050
World	11	17	22
More Developed Regions	22	29	32
Less Developed Regions	9	14	20
Africa	5	7	10
Asia	10	17	24
Europe	22	29	34
Latin America & Caribbean	10	17	25
North America	19	26	27
Oceania	15	20	24

Source: World Economic Forum, 2012.

regions are experiencing growth. And while the *percentage* of the population over 60 is greater in developed countries, the actual number of older adults is greater in developing countries such as China, India and Brazil (WHO, 1999). There were 171 million older adults in China in 2010, for example. Even more dramatic are the top 10 countries experiencing the greatest growth in their elder populations. As can be seen in Table 1.3, Japan currently leads the world with 22% of its population 60+, rising to a projected 45% by the year 2050.

This worldwide demographic trend presents both opportunities and challenges to nations and communities, and education is coming to play an important role is meeting these challenges. International bodies such as the United Nations, the World Health Organization, and the European Commission, nation states, and even local communities are developing educational policies and programs in response to global aging. The European Commission has identified five challenges with regard to older adult learning and stated that "there is a need for better insight into the benefits of adult learning and the barriers to its uptake, and for better data on providers, trainers, and training delivery" (European Commission, 2006, p. 10). And in line with this 21st century context of globalization, information, and technology, computer-based, online delivery systems have been successful in improving access (see Swindell, 2000). Further, computer literacy and social media are also topics of interest to older adult learners (Kim & Merriam, 2010).

Another worldwide demographic trend is the movement of people across borders, usually related to employment opportunities, but also in

TABLE 1.3 THE TOP 10 COUNTRIES WITH THE HIGHEST PERCENTAGES OF 60+ POPULATIONS IN 2011 AND 2050

2011		2050	
Japan	31	Japan	42
Italy	27	Portugal	40
Germany	26	Bosnia & Herzegovina	40
Finland	25	Cuba	39
Sweden	25	Republic of Korea	39
Bulgaria	25	Italy	38
Greece	25	Spain	38
Portugal	24	Singapore	38
Belgium	24	Germany	38
Croatia	24	Switzerland	37

Source: World Economic Forum, 2012.

search of a better life, and in some cases escaping war and violence. With regard to work, we have already mentioned the "brain circuit" phenomenon created by the knowledge society wherein people with specialized training are in demand, irrespective of national borders. Due to low birthrates in many developed countries, workforce shortages are being addressed by importing immigrants to fill low-skilled jobs. Singapore, for example, has had to bring in immigrants from China and Southeast Asia to fill service and construction-industry jobs. China itself is struggling with a huge flux of internal migrants moving from rural to urban areas.

The U.S. experience with the growing diversity of today's immigrant population mirrors what is taking place worldwide. As Alfred (2004) explains, the immigration pattern reflects an hourglass: "There are those immigrants who are quickly achieving upward mobility, primarily through education and high-tech jobs, while on the opposite end of the hourglass, large numbers of low-skilled workers find themselves locked in low-wage service jobs." As a result, "planners of adult and higher education programs face a challenging task as they attempt to meet the variety of needs and expectations that immigrants bring to the new country" (p. 14).

As with the global aging phenomenon, the growing cultural and ethnic diversity of most countries presents both challenges and opportunities. For example, according to the latest U.S. Census (Humes, Jones, & Ramirez, 2011), between 2000 and 2010 the Hispanic population accounted for 43% of the total population growth, Asians about 43.3%, and African Americans 12.3% (U.S. Bureau of the Census, 2012). Another measure of growing diversity in the United States is something called the USA TODAY Diversity Index (Nasser, 2013). This index measures on a scale of 0 (low diversity) to 100 (high diversity) the probability that two people chosen randomly are of different races or ethnicities. In the 1990 census the probability was 40; in 2000 it was 49; in 2010 the Diversity Index rose to 55. Such demographic changes as these create tension between how much a group's culture and language is to be preserved versus adopting the norms of the dominant culture. And of course such diversity presents challenges for adult education in terms of aligning learning needs and learning styles of different ethnic and cultural groups with the design of curriculum and instruction.

In summary, in drawing the context of adult learning, we have only touched on several major trends, any one of which has dozens of book-length treatments and will elicit millions of hits on Google. Globalization, the information society, technology and changing demographics are so interrelated it is difficult to consider one without reference to the others.