

Preface

As of 2016, 88 percent of Americans between the age 18 and 29 use the internet or had some kind of electronic device allowing them to access the World Wide Web (Pew Research Center, 2017). Coupling the increased dependency on technology, colleges and universities throughout the United States have developed a strong online presence and access to massive open online courses (MOOCs) both for students with disabilities and students without to ensure all learners can acquire the best college education (Myers, Lindburg, & Nied, 2014).

Education, employment, and income all have a direct correlation (Carnevale, Rose, & Cheah, 2011). The need and dependency on information and communications technology (ICT), employment and education has meant that almost all employers and institutions of higher education have implemented some kind of ICT infrastructure in order to facilitate cross-sector and cross-cultural communication and in the case of education, 21st century learning (Neumann & Campbell, 2016). Many postsecondary institutions are using technology and software to host online webinars so the undergraduate and graduate students can watch it periodically, provide knowledge exchange or transfer, and post changes in schedules and exams in real time (Perna & Ruiz, 2016).

However, with the growing influence of globalization and the massification of higher education, the return on investment of a college degree is now difficult to quantify because past research has suggested that there is a strong relationship between college degree, employment and income (Schudde & Goldrick-Rab, 201). In the past, higher education institutions did not take full advantage of the technology available – perhaps due to funding and/or lack the knowledge or skills to pursue such avenue. However, the introduction of many differing platforms and learning management systems such as, Canvas and Moodle have promoted higher learning and student engagement to both traditional and nontraditional students in higher education.

For instance, information technology has created a method of improved college access for students with a wide range of disabilities (e.g., intellectual, physical, social, cognitive) (Myers, Lindburg, & Nied, 2014). If the technology and information systems had not been improved for students with disabilities, then education would cease to evolve and access to a college degree would diminish. However, with the advancement of technology and the emergence of the digital revolution, students who are deaf, blind or have some kind of physical disabilities can now be educated and succeed in the global economy (Perna & Ruiz, 2016).

Generally, the use of technology to ensure that education is available to all learners who seek a college degree is paramount to tackling unemployment. However, we recognize that a bachelor's degree is not restricted to just employment. Instead, a postsecondary education can also empower the individual to reach their full potential, gain independence, and significantly improve their knowledge and further

afield – their lives (Patton, Renn, Guido, & Quaye, 2016). In addition, the advantage of accessible technology and its ability to attract and retain gifted students with little regard for physical or intellectual capabilities is also an advantage for higher education accessibility. Technology and ICT increases an individual's productivity and reduces the time to gather information from fellow colleagues and other students (Neumann & Campbell, 2016)

For example, one of the first universities in the United States to develop an adaptive technology lab was the University of Washington. The University of Washington has an accessibility program of which both faculty, staff and students can gain access to both on-campus facilities and off-campus facilities. The off-campus services were given the name DO IT (Disabilities, Opportunities, Internetworking and Technology) with the aim to improve universal design for students with disabilities in a range of subjects from technology to engineering and science (Burgstahler, 2015).

However, higher education accessibility is not exclusive for disabilities (Myers, Lindburg, & Nied, 2014). Instead, it can also invite restrictions from a financial perspective and the possibility of obtaining a college degree (Johnstone, 2016). Nowadays, the cost to attend higher education in the United States is rapidly on the rise and therefore much more difficult to ensure access due to the lack of funds or the negative opinions of a college degree (Slaughter & Rhoades, 2016). Because higher education is essential to the socio-economic growth in American society, the demand to prepare additional students to enter and complete a bachelor's degree has drawn major attention from both the national and state government (Altbach, 2016). This has created a generation of all or nothing – either complete a university degree or go home and seek full time employment – which is quite the contrary from the past four centuries (Geiger, 2016).

HIGHER EDUCATION ACCESSIBILITY: SOCIAL, HISTORICAL, AND POLITICAL FORCES

Historically, in the early years of the Colonial period, 1636-1789, higher education institutions in the United States were established to “lay the foundation for superior education” (Geiger, 2005, p. 48) and to serve as “sanctuaries” for free expression (Guttmann, 1987, p. 174). Specifically, since the founding of Harvard College in 1636, U.S. colleges and universities were established on Old World models to serve different types of students that reflect medieval European ancestry. Most students who did graduate at that time would serve as ministers, physicians, teachers, lawyers, or public servants of which American society emphasized “egalitarianism of the common man” (Brubacher & Rudy, 1997, p. 300). Colonial and antebellum colleges would serve as recognizable symbols of community pride for the democratic good in American society. In other words, American higher education would become a place where students advance knowledge and engage in services that would benefit individuals, states, the nation, and the world. However, it was not until the Mass Higher Education Era, 1945-1974, that have brought upon massive changes to a number of higher education institutions. Most notably, several two-year community colleges would expand exponentially when four-year institutions weren't able to fully accommodate all working part-time students (Brubacher & Rudy, 1997, p. 419).

To enumerate, returned World War II soldiers and veterans would begin to enroll at higher education and to seek part-time employment outside of school as many college campuses would provide “service to the government of the nation-state” (Scott, 2006, p. 21) that would “maximize social value, welfare, or utility” of the individual (Guttmann, 1987, p. 181). Historical and social forces such as, the National

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Youth Administration of 1935-1943, Servicemen's Readjustment Act of 1944 (G.I. Bill), the President's *Higher Education for American Democracy* report, and the formation of the National Science Foundation would prompt colleges and universities to undergo the largest expansion in U.S. history that encouraged citizens to pursue "knowledge for the sake of serving society and knowledge for the sake of serving social demands" (Guttmann, 1987, p. 188). Eventually, American higher education would be transformed into either community colleges or comprehensive research universities which would force both the federal and state governments to set strict criteria and guidelines on higher education accessibility.

For example, the California Master Plan for Higher Education of 1960 was established to set the core functions and missions of the University of California (UC), the California State University (CSU), and the California Community College (CCC). Often described as the 'tripartite' or 'three-tier system', the Master Plan created and prompted the core principles of differentiation and the concept of universal access for all students seeking to obtain a bachelor's degree in American society. Gumport and Chun (2005) define universal access as "educational opportunities that are extended to those who, for numerous reasons, have been excluded from the system of higher education" (p. 413). Likewise, Johnstone (2016) defines access as "the search for social equity in who benefits from, and who pays for, higher education" (p. 311). Because access to higher education became essential after the National Defense Educational Act of 1958, former U.S. President Lyndon B. Johnson declared in 1965 that: "A high school senior anywhere in this great land of ours can apply to any college or any university in any of the 50 States and not be turned away because his family is poor" (Johnson, 1965). Thus, the total number of students enrolling in California public higher education would exponentially increase from once 420,000 in 1948 to over 1,000,000 in 1975 during the Free Speech Movement of 1964-1965. Two-year community colleges, in particular, would witness the largest growth in college access from the 1950s to the 1990s, from once 217,500 students to now more than ten million students at the end of the twentieth century (Brubacher & Rudy, 1997, p. 419).

Today, higher education serves as both an engine of socioeconomic growth and as a gatekeeper to American society (Altbach 2016). Former U.S. President Barack Obama once proclaimed in 2010: "By 2020, America will once again have the highest proportion of college graduates in the world" (White House, 2012). Despite recent efforts and initiatives from the Obama Administration to graduate more students from high school and to increase college access and completion rates across the nation, the current and future political environment of the higher education landscape will likely remain optimistic at best due to the changeover of the U.S. Presidency and the intended or unintended consequences that could bring in the next four or eight years with U.S. President Donald J. Trump. Betsy DeVos as the new U.S. Secretary of Education could bring positive approaches and changes to college accessibility and affordability, or perhaps negative approaches and paradigms that undermines the disability and equity in higher education accessibility. However, as college education becomes necessary in American society, we as current higher education administrators and practitioners must take on larger roles and responsibilities to ensure that all students regardless of race, ethnicity, gender, disability, and/or socio-economic status receive the extra counseling and mentoring needed to succeed in the twenty-first century.

In short, we understand that universal design in higher education and coalition building around diversity, equity, and inclusion is often difficult. However, with the emergence of ICT and the digital revolution, we believe that administrators and practitioners can utilize the advancement of technology and communication tools to prepare all students for the globally competitive market economy. Hence, it is our hope that this timely book will help teachers-scholars and advanced practitioners to reframe and to reimagine the objective of college success and career readiness of which are hallmarks to col-

lege persistence and on-time graduation. We recognize that part of the struggle for diversity, equity and access involves honoring students' personal experiences in the educational sphere, and offering them vocabulary, tools, and strategies to become active rather than passive actors in striving for social justice (Myers, Lindburg, & Nied, 2014). Thus, we hope that this new book will further equip and empower the next generation of leaders to create an intellectual atmosphere of inclusivity in the classroom and encourage all students to proudly share their cultural identity without feeling like they are being judged. Higher education institutions often encounter challenges around how to adequately support them. We believe that recognizing talent, celebrating diversity, and empowering students to overcome and handle challenges are key pieces of the student achievement pathway.

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