Preface

INTRODUCTION

Learning opportunities and learning outcomes are correlated in many ways. Learning opportunities generally precede learning outcomes. Learning opportunities may present themselves to learners and scholars, while many learners and scholars seek out learning opportunities themselves. Likewise, learning outcomes produce learning opportunities because scholars/researchers constantly test learning outcomes. In other words, scholars replicate learning outcomes in order to test theories to confirm or disconfirm these theories or just for the sake of argument. Learning opportunities and learning outcomes go hand in hand to enhance one another and ultimately, humankind. These learning outcomes can provide the chance to enjoy the fruition of learning opportunities and may produce positive learning outcomes.

As early as the 1970s, a prediction was made that education would be delivered electronically in the 21st Century. Alvin Toffler (1970, 1980, 1990) also calls the 21st Century “the third wave,” which means the “information age” we currently live in. The Information Age is characterized by the use of social media in which people communicate with one another in a split second. People truly interact with “technology” at all levels. In the literature when focusing on technology and learning, scholars claim learners and researchers “learn” technology, “learn” with technology, and “learn from” technology. People born after 2000 (termed as millennials) grew up with technology. The Information Age is also termed as the “Digital Age,” which presents numerous learning opportunities and learning outcomes. It is no exaggeration to say that the Digital Age has provided the bigger environment for learning opportunities leading to learning outcomes. A few examples in the following sections illustrate the dynamic interrelationships between learning opportunities, learning outcomes and the digital age.

A new TV show titled “Amazing Chinese” made its debut a couple of years ago, in which many people including Americans, Russians and people from other countries pursue their Chinese dreams and hope to realize their Chinese dreams by winning financial support of the local Chinese enterprises. I was truly amazed by the world’s youngest ukulele player, a 4 year old Beijinger who attends the music event in Hawaii almost every year. His parents are ordinary Beijingers who have not trained this little musician in any way or form. The boy’s English name is Hummer, who sang first a Chinese song and then sang an English song titled “Somewhere over the rainbow,” which earned him a standing ovation. He calls himself “an attractive soprano.” When one of the judges, award winning actress Fan Bing Bing, asked Hummer whether he received training, he told the audience it took him just one minute to teach himself how to play ukulele and he “taught” the famous singer, Cai Guo Qing how to play ukulele on the stage. While Cai calls Hummer a gifted musician, Hummer’s musical talent has to do with the digital age we
live in. According to his father, Hummer does teach himself how to sing in Chinese and in English by interacting with social media ranging from TV to iPad and iPhone etc. Hummer definitely has “teachers” who are not human beings, but rather Internet technology in this digital age.

A second example to illustrate the interrelationships between learning opportunities, learning outcomes and the digital age is a 5 year old boy from Tianjin, China who also appeared on the same TV show to pursue his dream and demonstrate his amazing talent. His talent was the number π; this boy recited over 200 digits of this irrational number and he told the audience he could recite over 600 digits. The chalkboard could not contain over 600 digits. He then asked the judges to use a calculator to add or subtract many 4 digit numbers and the child was able to calculate the answer in his head. He did two groups of 4 digit numbers and his answers were accurate. He was able to calculate them faster than the judges who relied on the calculator. According to this boy, his parents own a small family restaurant and did not have time to train their son. Once again, this math “genius” interacted with technology in the environment in this digital age. Perhaps, he has been exposed to TV, the omnipotent social media or the ubiquitous computer in his home where his parents find no time to teach him due to their family owned business.

A third example is a 22-year-old college student from Oxford University in the United Kingdom. This student recently participated in the Chinese “Take Me Out” program in his country. He is fluent in Chinese and he is majoring in “Ancient Chinese.” This young man, according to his appearance in the program, is good looking, sunny, and outgoing in his character. Many of the 24 Chinese girls on stage wanted to date him. Viewers “wowed” his amazing Chinese ability and talent. When asked how he could use Chinese freely like this on the stage, this young man did not say anything about teaching or learning at Oxford University. Instead, he told the audience he considers the Internet his “teacher” to learn Chinese. The influence and the impact of the Internet is amazing! The Internet can actually serve as one’s teacher. Another college graduate from Cambridge University, United Kingdom participated in the same program recently and claimed to speak 5 languages. What is amazing is the fact he was able to speak Chinese after staying in China for just 3 months! All these stories speak to the way we acquire knowledge in the digital age.

Habermas (a German social philosopher) published a book titled Knowledge and Human Interests in 1971. He discusses three kinds of knowledge:

The first kind of knowledge is instrumental knowledge which allows us to manipulate and control the environment, predict observable physical and social events, and take appropriate actions. This kind of knowledge is acquired through empirical research, teacher centered education, or natural scientific methodologies. Instrumental knowledge also confirms what Dewey said about learners interacting the environment. The environment excites the mind and motivates the learner to probe learning projects to produce learning outcomes. Habermas (1971) tells us that instrumental knowledge is established by reference to external reality using the senses and that there is an objective world made up of observable phenomena. Observable phenomena would translate into learning opportunities and learning outcomes in the digital age. The onset of the digital age has opened up possible opportunities simply in terms of access to information; with this access the propensity for learning opportunities and learning outcomes is increased.
Many of these learning opportunities and outcomes seem to be centered on experiences that occur within the United States. Imagine how many learning opportunities the U.S. universities have produced for Chinese students each year. Currently, nearly 300,000 Chinese students study on U.S. campuses. The U.S. universities provide an environment in which learning opportunities and learning outcomes are fostered and thrive.

Habermas’s second kind of knowledge is practical knowledge (to use Habermas’s term) or communicative knowledge (to use Mezirow’s term). Mezirow’s (1981) term best describes how we acquire knowledge by communicating with one another and also via social media in this digital age. Over 2,000 years ago, the Chinese Confucius, educator and philosopher addresses this kind of knowledge by using an analogy, “three people are walking down the street; one of them can serve as your teacher.” This interaction between the teacher and the learner is being emphasized here. Nowadays, Chinese teachers and learners use this analogy by Confucius to address any learning opportunities and learning outcomes in the Chinese society. This analogy is also applied to address learning opportunities and learning outcomes in other Confucius heritage countries. Habermas (1971) argues that human beings have always been social creatures, instinctively forming groups, tribes, communities, cultures and nations in order to satisfy their mutual needs. For people to survive and get along in groups and societies, they must communicate with one another and understand each other. Perhaps online teaching and learning, now all of the talk about MOOCS, has to do with Habermas’s second kind of knowledge. Knowledge is being transmitted via Internet technology with a click of the mouse. Learners take courses online and secure degrees including the highest degrees in a variety of areas of study.

Habermas’s third kind of knowledge is emancipatory, which involves a questioning of instrumental and practical knowledge. Habermas posits that by nature, people are interested in self-knowledge, growth, development, and freedom. Gaining emancipatory knowledge is dependent on one’s abilities to be self-determining and self-reflective. Habermas describes self-determination as the capacity to be both aware and critical of ourselves and of our social and cultural context. Self-reflection indicates that we are aware and critical of our subjective perceptions of knowledge and of the constraints of social knowledge.

The three young learners described above are not exceptions. Rather they are individuals who have engaged themselves in learning opportunities leading to desired learning outcomes by acquiring knowledge through the aforementioned three kinds of knowledge advanced by Habermas.

A perplexing research question may arise out of this discussion regarding learning opportunities and learning outcomes in the digital age. It is apparent that in the U.S. students have the greatest learning opportunities leading to the greatest learning outcomes in the digital age. The sad reality is that almost every ten years, a national report comes out, reporting that U.S. students do not compare with students from other industrialized nationals, especially from emerging economies such as China and India. From 1957 Sputnik, the 1983 Nation At Risk Report, and the 2002 No Child Left Behind to the most recent Program for International Student Assessment (PISA), U.S. students have lagged behind consistently in Math, Science and Reading. Students from other countries take the tests in English rather than their native languages and continue to shine, and take the world by storm. The U.S. university administrators tend to brag about their national accreditation from an agency called Council for the Accreditation of Educator Preparation (CAEP), saying “we deliver the best programs to our students and we guarantee quality in education in all areas…” I invite you to read the following report about my research released by the academic publisher of research, IGI Global:
Dr. Victor C. X. Wang Presents at the Scholarship of Teaching and Learning (SoTL) Commons Conference

By IGI Global on May 19, 2014

Last month, the Centers for Teaching and Technology hosted the 7th annual “SoTL Commons” conference in Savannah, Georgia, from March 26-28. This conference brings together people engaging in SoTL and anyone wanting to improve student learning outcomes in higher education today. The conference epitomizes that college teaching is intellectual work that is enhanced both by disciplinary scholarship and the scholarship on teaching the disciplines (SoTL). The SoTL Commons Conference is a catalyst for learning, conversations and collaborations about SoTL as a key, evidence-based way to improve student learning.

IGI Global author and Editor, Victor C. X. Wang, of Florida Atlantic University, was invited to present at the conference. His presentation was entitled “Comparing Confucian Teaching and Learning with Western Teaching and Learning,” a discussion exploring innovative instructional strategies revolving around andragogy and pedagogy in relationship to Confucian Teaching and Learning. Dr. Wang’s presentation was especially well-received, with tremendous participation from the audience.

This talk was a result of Dr. Wang’s vast experience and research in andragogy and pedagogy. Wang’s forthcoming also divulges this research and experience; presenting educational and social science perspectives on the state of the healthcare industry and the information technologies surrounding it. This encyclopedia presents a compilation of some of the latest research on methods, programs, and procedures practiced by health literate societies. This groundbreaking two-volume set provides cutting-edge content for researchers, social scientists, academicians, and adult educators and learners interested in how available technologies affect our health today.

Victor Wang’s encyclopedia is a part of the AHSPH book series, which aims to publish high-quality reference publications focused on the latest methodologies, tools, issues, and strategies for managing the health and social welfare of the public. The AHSPH book series will be especially relevant for healthcare professionals, policy makers, government officials, and students seeking the latest research in this field.

What I really wanted to share with you is not the glamorous report about my research. After I made this presentation in Georgia, USA, I was followed by a group of professors from such universities as University of Wisconsin and University of Oregon who told me clearly that U.S. educators got a “slap in the face” regarding the most recent PISA report! However, they were not aware of the reasons why U.S. students were lagging so far behind given the many learning opportunities in this digital age. In fact it seems U.S. students do not use computers that are more than 3 years old. U.S. educators travel around the world on the Fulbright scholarships to disseminate knowledge about their research. Yet, who is responsible for these low performing U.S. students?

Over the years, I have been conducting research and publishing research to seek the much needed answers to share with U.S. educators, and especially policy-makers. While my published articles have generated numerous downloads and citations, they have fallen on the deaf ears of policy-makers who continue to indoctrinate our students with their own ideologies about learning opportunities, learning outcomes, accreditation or advanced American instructional strategies. Many years ago, a famous U.S. educator, Professor Gary Conti criticized U.S. policy-makers for having no knowledge of teaching philosophies. Yet, these administrators, who are at all levels, continue to make policies about learning opportunities and learning outcomes for our students in the United States. There is a natural tendency for administrators to hire people who reflect their own values about teaching and learning.
In many states, schools have adopted the Common Core State Standards to characterize U.S. education by “centralization” instead of “decentralization.” On the surface, this may work for the U.S. schools and universities. However, Brookfield (2013) pointed out that cultures put a strain on these beautifully, well-reasoned theories in Education. Education models that work in one culture may not work in another. For centuries, Chinese learners engage in rote learning, memorization and drill and practice. Chinese teachers teach to the tests and teaching means in China, a detailed analysis of every page of the required textbook. By the end of each semester, a textbook becomes truly “yellowed.” U.S. students cannot compare to Chinese students when it comes to their scores on standardized tests, but obviously we need to question what standardized tests measure and how that knowledge is valued in different cultures. I don’t have any definitive answers. However, during my 25 years of university teaching both in China and in the United States, I do have firsthand observations, which may answer the question partly. In China, if students fail to understand guidelines of certain assignments or if they fail to pass certain exams, they seek learning opportunities to improve their learning outcomes. If they still fail, they “blame” themselves for not having the needed ability or determination. However, the same dynamic in the US tends to create a reciprocal understanding of responsibility. In China, no students are considered to be qualified to evaluate their instructors’ teaching. Teaching evaluations are done by administrators only. In the United States, students provide feedback to the instructors based upon their experience as a student. This scenario in the US allows for adjustments to both learning opportunities and learning outcomes. These instructors may utilize this feedback to adjust courses to better meet the needs of future learners. One may ask, “where is the self-determination; where is the self-reflection to achieve emancipatory knowledge on your own?” It could be argued that the U.S. system offers too much support to students or it could be argued that educator support is essential to learning. This is both a cultural difference and a philosophical difference. In the United Kingdom, they have a popular saying, “these administrators are dogs in the manger…” This means certain administrators are not qualified and handpicked in the first place, yet they still hold power and do not make room for those who can make the best policies to benefit our students. If this trend were to continue, then the burden of learning may lend itself more toward self-determination and self-direction based upon access to the digital resources that are available.

To address learning opportunities and learning outcomes in this digital age in China, both educators and learners, including educational administrators follow the teachings by Confucius. To date, more than 500 Confucius Institutes have been established throughout the world. In each U.S. state, there are at least two Confucius Institutes. Some states may have five or six. Although sponsored by the Chinese government, Confucius Institutes, for the most part, impart knowledge about Confucian philosophies about learning opportunities and learning outcomes at all time:

*By nature men are nearly alike, but through experience they grow wide apart.*

*Those who are born wise are the highest type of men; those who become wise through learning come next; those who are dull-witted and yet strive to learn come after that. Those who are dull-witted and yet make no effort to learn are the lowest type of men. – Confucius (551-479 BC)*
Implicit in the above statements by Confucius is that learning on the micro level makes a difference in people’s lives. Learning opportunities and learning outcomes contribute to the following:

1. Learning provides the best resources for teaching and learning.
2. Learning provides the grounds for individual identity.
3. Learning incorporates individual differences.
4. Learning may create barriers/mental models for new learning.

On the macro level, learning results in enhancing a nation’s overall development, including its economy. Qian Xuesen, a Chinese-born aeronautical engineer would not have become the father of China’s space program had it not been for his learning opportunities at Caltech and the Massachusetts Institute of Technology. Learning during the Industrial Revolution resulted in technological advances such as the inventions of the locomotive, the power loom, the telegraph, the sewing machine, the railroad system that moved our society forward into the Digital Age. Scientists in the Digital Age such as Steve Jobs have changed the way learners learn and turn information into knowledge. Technology serves as an access point to knowledge. Furthermore, learners learn technology, learn with technology and learn from technology. The Handbook of Research on Learning Outcomes and Opportunities in the Digital Age features the chapters in the following areas:

1. Learning opportunities that result in learning outcomes.
2. Learning outcomes that create new learning opportunities.
3. Both learning opportunities and learning outcomes that make a difference in people’s lives and a nation’s overall development.
4. Learning results in more technological advancements and technology that create new learning opportunities and learning outcomes.

OBJECTIVE OF THE BOOK

Handbook of Research on Learning Outcomes and Opportunities in the Digital Age features full length chapters (around 12,000 words per chapter) authored by leading experts offering an in-depth description of concepts related to learning outcomes and opportunities in the digital age.

TARGET AUDIENCE

Researchers, scholars, professors, and learners across the disciplines such as Education, Business, Arts and Humanities and Social Sciences.

Victor C. X. Wang
Florida Atlantic University, USA
REFERENCES


