

ISSN 2730-2601

RICE Journal of Creative Entrepreneurship and Management, Vol.2, No.2, pp. 78-89,

May-August 2021

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doi: 10.14456/rjcm.2021.27

Received 28.06.21/ Revised 03.08.21/ Accepted 14.08.21

## College Degrees versus Free Online Courses

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### Abstract

This academic paper deals with three types of education: formal, informal and nonformal. The major components of these three types were discussed, mainly on the host or provider, curriculum, instruction, learning modes, learning outcomes, assessment or evaluation, and certification. The author discussed all these components in the light of the necessity of college degrees and the impact of free online courses. The paper was concluded with the author's reflection upon current demands for specific types of education with specific competency desired by the job market and areas of work.

**Keywords:** *Formal education, informal education, nonformal education, university degrees, online courses*

### 1. Introduction

Educators are currently concerned with what would be best for teaching and learning at the university level (Sinlarat, 2020). As known, there are three types of education: formal, informal and nonformal. Each type has major components, mainly (1) the host or provider, (2) curriculum, (3) instruction, (4) learning modes, (5) learning outcomes, (6) assessment or evaluation, and (7) certification. All three types of education approach these components slightly differently and very differently, depending on the learner needs and expected learning outcomes. It is important to think carefully about the necessity of college degrees and the impact of free online courses. In this paper, the author gave relevant information and the scope of tasks and operations of formal, informal and nonformal education, and the author's interviews with key executives, followed by reflection upon current demands for types of education with specific competency desired by the job market and areas of work.

The three types of education and their components are shown in Table 1.

**Table 1:** Major Components of Three Types of Education

Components	Formal Education	Informal Education	Nonformal Education
Host/ Provider	School/ Institution	School/ Institution	Organizations/ Public or Private Sectors
Syllabus/ Curriculum	Subject-oriented/ Structured	Both prescribed and diverse contents	Diverse contents
Instruction	Teaching methods	Diverse methods	Self-teaching/ From environment/ Flexibility

Components	Formal Education	Informal Education	Nonformal Education
Learning modes	Classroom/ Schedule	Adult learning/ Home schooling/ Learning Participation/ Real-life practice/ Learning by preferred place and time/ Various material sources/ Time-efficient learning process/ Resource persons	Life experience/ Daily life situations/ Working with friends/ Learning from history, situation, TV, YouTube, News, Social media
Learning outcomes	By curriculum	By curriculum	Skills by self-learning
Assessment/ Evaluation	Examination	Examination	No need for examination/ Authentic assessment (if any)
Certification	Certificate/ Degree	Certificate/ Degree	Certificate of Attendance Certificate of Completion
Cost	Full fees	Partial fees	Low fees/ Free

Source: Passion in Education.com (2021)

As seen in Table 1, the components of formal and informal education are quite similar, except that informal education allows students to manage their learning time but still need to follow the prescribed methods of assessment and evaluation at the end of each course and the total program. Nonformal education supports students to enjoy freedom in learning online regarding their choice of courses, self-learning pace and time and no burden of traditional examination. Those who choose nonformal education would perhaps need certificate of attendance or completion as preferred. Considering the three types of education concerning their learning modes, we can see that nonformal education has opened up a new learning perspective for those who need technical knowledge and skills development pertinent to their personal needs or particular tools specific to their current work. They can simply shop for what they want to learn, and there is no need to cover the whole curriculum as prescribed in the typical teaching-learning modes in formal or informal education.

## 2. Nonformal Education

In this 21<sup>st</sup> century, non-formal education, widely known in the form of free online courses, has shown itself as a current trend on self-education and self-paced learning, which is flexible and matches well with many people's lifestyle. One outstanding example of self-educators is Mark Zuckerberg, the co-founder of Facebook in 2004. He dropped out of college and put himself into non-formal education to learn what he needed for his career to become a creative entrepreneur and a billionaire at a young man. He did not wait for a college degree to start his enterprise; instead he self-taught for the needed knowledge, techniques and skills to pursue for success in the social media business. He has been recognized for excellence in self-education with passion and good self-discipline. From his example, it is possible for a person to learn without boundaries of time and place for what the person has set determination and discipline to learn for specific purposes. In this regard, one question has faced educators: Is a college degree still necessary? Other related questions also follow:

- "Do you have to go to a college to get a good job or to be successful?"
- "Do colleges have curriculums and the right teaching-learning ways for students to have the skill set that matches with workforce nowadays?"
- "Are there many free online courses from Ivy League universities. So why spending money on getting a college degree?"

(Bogle, S. (2017)

<https://www.fnu.edu/college-degree-higher-paying-job/>. Retrieved on June 24, 2021

<https://www.northeastern.edu/bachelors-completion/news/is-a-bachelors-degree-worth-it/>.

Retrieved on June 24, 2021)

Jomtraï Bunnag, Senior Vice President Business Center Manager-Medium of Krungthai Bank Thailand stated that when talking about the necessity of a college degree, it mostly depends on the business and the skills of each profession. The government, the private sector, or large or medium-sized companies might need to see a college degree on an applicant's document. Having a college degree is still one of the entry requirements in the job market, proving that formal education has a strong grip on graduates to have a degree obtained from accredited education institutions. There has been an argument that knowledge of the subjects listed in the program may not be used in the real job. Some organizations, such as small or family business, may not require a college degree, because such a business usually wants assistants to work in originally set pattern of operations and be willing to conform to the way of work practiced for very many years back in the past. However, staff in sales, accounting and customer relations, if with a college degree, could be an advantage.

As known, some occupations require foundation knowledge, expertise and practice throughout a series of courses in the program, which awards a degree, such as a career in medical sciences, life sciences, physical sciences, engineering, humanities, social sciences, management and education, to name but a few. However, for some careers, a college degree may not always be necessary, such as careers in fine art, music, singing, acting, sports, drivers and YouTubers, because all require specific skills, creativity, and self-training.

Not just that. Even graduates holding a college degree need to retrain themselves with digital technology or new skills to look for a new job amidst digital disruption as seen in the banking industry. Such disruption in digital finance is similar to that in educational institutions being disrupted by digital online learning platforms. In particular, financial institutions with traditional banking need to reduce their operating costs with digital banking in response to needs for data analysis on the digital platform as well as fast customer services. So, digital technology has come in to shift the paradigm on how people value structured formal education to a new mode of information search and self-learning. (The author's interview on 28 June 2021)

### **3. Successful Leaders Who Do not Have College Degrees**

Many leaders have been recognized as self-taught and learned under non-formal education (University of People, 2021). They have their own personal interest and are driven by their strong grit. Some might have taken some college courses. However, with their passion and persistence toward the explicit goal, they grasped the clue of the direction of how to get where they want to be. Here are nine examples:

1. Steve Jobs: Steve Jobs went to Reed College for computing but dropped out after just one semester. After spending some time in India for inspiration, he built one of the most powerful and influential company today: Apple.
2. Richard Branson: As a dyslexic student, Branson did not succeed in school and dropped out of high school. He is now a billionaire and the founder and CEO of Virgin Group.
3. Dave Thomas: Founder and former CEO of Wendy's. Thomas left high school to work for a restaurant in Indiana. He opened the first Wendy's in 1969, and the rest is history!
4. Michael Dell: Dell went to college because his parents wanted him to become a doctor. However, during school, he started a side gig refurbishing computers that became so successful, he dropped out after one year. Dell computers are now part of many people's work and life worldwide
5. Rachael Ray: Believe it or not, Rachael Ray has no culinary training or any degree for that matter. However, she used her skills, personality, and tenacity to become a fantastic food star these days.
6. Henry Ford: Ford left his family's farm at the age of 16 to move to Detroit and worked as an apprentice in a machine shop. He has no formal schooling in engineering or business but revolutionized the automotive and industry world.
7. John D. Rockefeller Sr.: Rockefeller, like many of his time, started working at the age of 16 with only some knowledge of bookkeeping. He is known as one of the wealthiest Americans ever to live and founded one of the most successful companies in America, Standard Oil.
8. Steven Spielberg: Spielberg was denied acceptance to film school twice. While attending another school, he started as an intern at Universal Studios and began his career that way. He later received an honorary degree 35 years after first attending college.
9. Mary Kay Ash: Mary Kay Ash, the founder of Mary Kay Cosmetics, started her company in 1963 at the age of 45 after decades of watching men get promoted instead of her. Before she began to Mary Kay Cosmetics, she was a successful businesswoman much ahead of her time.

Nowadays, non-formal education, which includes online learning or free online courses, has massive benefits to many people worldwide. Degrees or certificates may not be needed as much as experience matched with job qualifications and required skills for the company an applicant wants to be part of. It is possible that a degree and the courses a person learned in the last four years no longer match with what today's industry needs.

Harvard Professor Clayton Christensen (Schroeder, 2019)) described disruptive innovation as a process by which a product or service takes root initially in applications at the beginning of a market and then constantly moves upmarket, eventually displacing established competitors. That is just what started in the early to mid-1990s for online courses and continued until today.

(<https://brainstation.io/.../why-apple-and-other-tech>. Retrieved on June 24, 2021)

<https://ecelliitd.wordpress.com/.../google-does-not-care>. Retrieved on June 24, 2021)

#### **4. The Impact of Free Online Courses on College Degrees**

##### **4.1 The Impact of Free Online Courses from Prestige and Ivy League Universities**

Both prestigious higher education institutions and even Ivy League universities have efficiently reached the new and underived markets by basically bringing the University to the student. The trend has resulted from the overall drop in college admission in the U.S. in a fourth year, in contrast with the online courses market edging in. Consequently, individual universities, such as Southern New Hampshire, Arizona State, and Georgia Tech approached the "at-scale" mark. One could say that was concrete evidence of success in online courses. There are now so many online courses, flexible and low-cost, or even free of charge these days that one can find a program within an affordable budget and suits one's daily schedule (Schroeder, 2019; Boutselis, 2020a; Boutselis, 2020b; Ashe, 2021)

Digitaldefynd (2021) reports the 20 best free online certifications and courses as follows:

1. Free Certification Courses (Stanford University)
2. Free Online Courses (Harvard University)
3. Free Online Courses (LinkedIn Learning)
4. Free Certification (Digital Defend)
5. Free Online Courses (Udemy)
6. Free University Courses (Coursera)
7. Free UC Berkeley Courses (UC Berkeley)
8. Free Creativity Classes Online (Skillshare)
9. Free Online Learning (Alison)
10. Free Google Courses (Google)
11. Free Coding Courses
12. Free Python Courses
13. Free IT Certifications (Udemy)
14. Free University & College Certification Courses (edX)
15. Free Online Courses and Nanodegrees (Udacity)
16. Free Online Courses (Khan Academy)
17. Free Online Courses (Microsoft)
18. IT Training Certifications (Microsoft Learn)
19. Lessons worth Sharing (TedEd Courses)
20. Free Online Programs (MIT Open Courseware)

##### **4.2 Free Online Courses from Top Five Ivy League Universities**

Free online courses from top five Ivy League Universities (Difitaldefynd.com, 2021) are:

**1. Stanford University** is one of the top Private universities in Stanford, United States.

It is ranked #3 in QS Global World Rankings 2022.

The key unique selling points of free online courses:

- The beginner-level programs do not need any prerequisite knowledge.
- Lessons are designed with increasing levels of difficulty.
- Understand the significance of the topics covered and their impact on the real world.
- Complete guidance is provided to configure and install the necessary tools.

- The flexible deadlines allow you to learn at your own pace.

**2. Harvard University** is the oldest higher education institution in the United States,

located in Cambridge, Massachusetts. It is ranked #5 in QS Global World Rankings 2022.

The key unique selling points of free online courses:

- Cover your chosen topic in-depth with relevant case studies, interactive examples, and more.
- Get hands-on with the exercises and assignments.
- Explore possible career paths relevant to the program.
- Clarify your doubts by interacting with your peers and instructors.
- There is no prerequisite to enroll in beginner-level classes.

**3. MIT Open Courseware, Massachusetts Institute of Technology** is one of the top Private universities in Cambridge, United States. It is ranked #1 in QS Global World Rankings 2022.

The key unique selling points of free online courses:

- Choose from the collection of complimentary classes, audio/video lectures, and more.
- Use supplementary resources and online textbooks to enhance the learning experience.
- Complete the graded assessments, assignments and pass the examinations to complete the certifications.

Other best free online courses' uniqueness is listed as follows:

1. All courses are effectively free since the first month on the platform is a trial period. After that, it's free, but for some classes, you may pay if you want a certificate.
2. Thousands of skilled instructors from prestigious organizations and universities have created these courses.
3. The option of 'view offline' allows you to attend classes without the Internet and on the go.
4. You can work on the class project to create your portfolio and get feedback.
5. Gain the best practices, techniques, and tips from the instructor.
6. You can learn on your self-paced.
7. Interactive and enriching learning experience.
8. With online learning, it is a great way to keep your education on during Corona lockdown.
9. Most online learning platforms have downloadable resources, video lectures, quizzes, graded assignments, and practice exams to test your knowledge and skills.

## **5. A College Degree Is Beneficial, but not Always Required**

According to FAANG Stocks, FAANG (Facebook, Apple, Amazon, Netflix, Google) are some of the world's renowned and most significant tech companies. FAANG refers to the stocks of the five biggest and best-performing American technology companies and is great to work with for many good reasons (Fernando, 2021).

Sandeep Jain, Founder, and CEO, GeeksforGeeks (Jain, 2021), shared the steps on how you can get a job in FAANG companies. The crucial qualifications are people to think

out of the box, problem-solving skills, expertise in solving algorithms and data structures, teamwork, coding competition expertise, contribution in open source projects, brainstorming, improving solutions, and grasping information quickly. Furthermore, these are the process of FAANG companies to recruit people to work for them:

1. Interview process

It varies from company to company; one should read the blogs which talk about it. Generally speaking, there are around 3-7 rounds of interviews for an entry-level and a lateral role.

2. Pre-screening round

A candidate would need to grab the attention of a recruiter by making their CV stand out. The interviewer tries to understand the candidate's background and asks a few HR questions. The answer should match the job description. If a candidate can crack this round, then next would be a technical test.

3. Technical test

The concepts one needs to focus on are data structures and algorithms. Doing a bit of competitive programming would help to overcome the challenging problems.

4. Personal interview

Technical and HR interviews. One can crack technical interviews by practicing more and more coding and problem-solving.

Merav Schlesinger Falik, AppsFlyer Vice President of People says:

(1) “From my own experience, I think it is essential, like science. And researching is super important. But for my experience many times, unless it's specific professionals that I will mention shortly, sometimes there's a big difference between the third and theory that you learn on academics, studies, and what happens in the actual field. So it depends because it is particular, many times right around the subject.

I made a career without a degree, and it says everything now. Regarding degree or online courses, it is the experience that will be much more valued”

(2) “The process from FAANG is as similar as other prestigious companies, such as AppsFlyer, a successful global start-up founded in Israel. AppsFlyer is the global leader in mobile attribution and marketing analytics. Data-driven marketers trust AppsFlyer for independent measurement solutions and innovative tools to grow and protect their mobile business. AppsFlyer's platform processes billions of mobile actions every day, empowering marketers and developers to maximize the return on their marketing investments. AppsFlyer's People-based Attribution, NativeTrack™ Attribution, Marketing Analytics Data, OneLink's Deep linking capabilities, and Protect360 enterprise-grade fraud solutions have made AppsFlyer's platform the go-to resource most successful mobile apps in the world. With Facebook, Google, Twitter, Pinterest, Snap Inc., Tencent, and 4,600+ other integrated partners, and clients including HBO, Waze, Alibaba, Skyscanner, Activision, and 12,000+ leading brands worldwide, AppsFlyer has 15 global offices to support marketers everywhere.”

(The author's interview on 20 June 2021)

## 6. The Necessity of College Degrees

Here are the thoughts of senior management in the high technology industry regarding the necessity of college degrees:

Jonah Kadish, AppsFlyer Director of People Operations, APAC says:

“Prior to the Internet, another benefit of going to universities is that it was an indication of the caliber of education you were receiving, and that was a reflection or was meant to be a reflection of your abilities as a knowledgeable employee who could contribute to an organization. But again, this has changed because many universities now have combined online and offline learning curriculums. In addition to this, many of the jobs that people look to get in today's exalt change very quickly day-to-day, and their responsibilities or the information necessary to succeed at a job change just as fast, so I believe one of the most important parts of being successful in today's economy is the ability to learn to unlearn and then relearn And universities don't necessarily prepare people with this skill set. Instead, a person who can find their own way of learning or educating themselves through a number of different mediums, whether they be online-offline official curriculums or do-it-yourself projects, are the ones who will indeed succeed in the new economy.

So if you ask me if college degrees are necessary, my hypothesis is that a number of jobs that require verified knowledge of a specific skill set will still require college degrees, but many jobs, for example, graphic design web development and even field such as HR are going to have far less of a need for people with College degrees. Instead, what I think will find are that people are going to apply to jobs by showing either a Passion for a specific type of work or relevant experience that they might have gained on their own or through previous job experience I think there will also be a large development in Non-degree curriculum Learning. I truly believe that online and in-person boot camps or accelerated learning experiences that give you the foundation skills and also help you collaborate and learn to work together with other people are going to be far more common ways for people to prepare for a specific job or show that they have the foundation that will give them the ability to succeed in the job that they would like to earn.”

(The author's interview on 26 June 2021)

Tiwa York Former managing director e-commerce of Sanook online limited, Former head coach (CEO) of Kaidee, Boad member of Seekster, and Board member of Seven Peaks Software says:

“Do you know that I never graduated from University. I don't think the world is going to change that fast. And so my opinion like look, the world is still much easier if you have a degree. And it becomes a check in the box. However, from what you can see, in the last 20 years, I don't know too many people that actually worked in the field that they graduated in. So you know, a lot of people, a lot of law students, they'll stress like, Oh, am I getting into the right degree field? And particularly in Thailand is an interesting question. It's kind of dictated by that testing system that Thailand has. But the reality is, most of the people I meet rarely graduated in the field that they're actually working.

So in that way, is the degree important for the field of work that you do? I don't think it's so important, but in terms of getting in the door and being a checkbox, I think it remains important. And the reality is, you know, with the changes in education, particularly with COVID, making, that remote learning has changed things. You can get an education without a university. But there's still a perception that if you've checked that box, you've gone through the hundreds of university people expect it. And that attitude is something that's been instilled in us for the last 100 years.



So the most important thing that I look for in people who are going to work in the company is the mindset. And mindset is everything. So you want them to have an analytical mindset. Also, be willing to learn. I look for team players for me. And these are the key characteristics that I'm looking for, and also their owners. So when they approach the job, that they own their job, that they're not just spinning the wheels to do the job, because somebody else told them. And these are the key things that I look for in terms of technical skillsets; there are certain jobs that do require very technical skill sets that are specific, which can be learned by anybody, for the most part. Right? So for me, unless you're, you know, backend programmer, or a trying to be a data scientist, which those two areas I kind of expect you to at least have a background in most technical things I can teach you. But the one thing I can't teach you is the mindset.

From my perspective, degrees are not important for me personally. But that's also a reflection of my background. So I don't really care about somebody whose degree if they don't have a degree, but I'm looking for their experience and their mindset. All of my best engineers, none of them have computer science degrees. They were self-taught and learned on the job and have their own personal interest, maybe took some courses, but really have their own personal interest in it.” (The author’s interview on 24 June 2021)

## 7. The Impact of Free Online Courses

Here are the thoughts of senior management in the high technology industry regarding the impact of free online courses:

Jonah Kadish, AppsFlyer Director of People Operations, APAC says:

“Prestigious universities offer a lot of their curriculum for free online, and what is the impact, if any, for the University, negative or positive. When I consider this question, the 1st thing that comes to mind is that the students who take advantage of the free online classes are a much different segment from the students who want to attend the actual University.

When you take a class online for many of these prestigious universities, typically, to my knowledge, those online classes Do not include classroom components virtual or in-person, so a lot of this online learning is done on your own, and while it might have a testing component to verify your understanding of the knowledge, you're not necessarily in the classroom discussing the concepts and learning with the actual professor instead it's self-paced, and you submit quizzes or answer quizzes that are probably usually automated so that there's no interaction with an instructor.

Therefore the students who attend the free online versions of classes are a much different segment than the students who want to actually attend the University. The students attending the free online classes are looking to gain knowledge without necessarily making connections, building networks, or getting verification of their capability or academic accomplishments through a certificate or degree. This is much different from the students who, in my opinion, attend the actual University.

Students who choose to attend prestigious universities want to go there because they are virtually guaranteed that the quality of the teachers is going to be excellent, but the other part of attending a prestigious university is to build your network, and building your network comes through attending classes together collaborating together on projects as well as just the social component of getting to know your classmates whether it's in parties or study groups or having coffee after class Online learning platforms typically don't fulfill this need. While through an online learning platform you might earn excellent education, you might even earn a certificate to prove or verify your knowledge in a subject matter or potentially

even earn a full degree the component that is typically not fulfilled is the classroom interaction, the social interaction and the ability to build a strong network by working with your peers collaboratively. Because of this, I do believe that prestigious universities will continue to have an advantage and have a segment of students who will, for the mid to long term, prefer to attend the University in person.

So what does this mean for the actual universities? I believe that over the short to mid-term, there will be less of an impact to the University in terms of losing students, but what we will see is a lot more blended learning, so a combination of online and offline we will also see that the professors who are excellent in the classroom and really captivate students with their teaching capabilities will continue to rise to the top And I believe that universities will need to focus on how to retain those excellent professors Who have a true passion and skill for teaching, in other words, I think ranking systems which there are many online already to check on the quality of a professor are going to be more important to a University and understanding which professors they should retain which professors they should promote as the most as a teacher that students should attend their lectures in person or virtually.”  
(The author’s interview on 26 June 2021)

Tiwa York Former managing director e-commerce of Sanook online limited, Former head coach (CEO) of Kaidee, Boad member of Seekster, and Board member of Seven Peaks Software says:

“I think just that it's the before you would attend a university, specifically for their teachers and whom they could recruit. And so there's always a, I guess the competition within the University is trying to attract the best professors. And the best students are the best. And so, I think that model is being disrupted because of the democratization of education, which is a good thing for the world. And so then I think they have to think differently about how they can approach it.

As an investor, Ed Tech remains very interesting for me. But I haven't seen many models in EdTech. That can make money that isn't corporate education focus. So I think there's still a lot more disruption. I don't have the answer for it. I am looking for start-ups that have the answers to fix this in more traditional education. And we need to disrupt how we approach education to actually meet the future needs of the working of skilled workers. And I think that's wrapped, that's going to change even faster with the introduction of technologies. The pace of movement today is going so fast, whether, you know, they named the industry, but a lot of it's being driven by AI. And so if you look at what's happening in machine learning, everything else, and robotics and automation, you know, we won't need the skill sets that we were expected to have. With I need a different skillset and the workers, you know, going to be we're going to have a massive need for people that can address what the world needs. The problem is I don't think the universities can produce those people anytime soon. That is true.”  
(The author’s interview on 24 June 2021)

## **8. Conclusion and Reflection**

### **8.1 The Necessity of College Degrees**

To get in a good company with a high pay takes skillset and how an applicant can display what it takes and what the company needs the right man for the right job. As shown in this academic paper, a college degree could be an advantage, but the company prefers employees who are determined, self-disciplined, goal-oriented, and well-equipped with preliminary skills for specific positions. However, according to the author’s interview with the senior management from high technology companies, they value experience and mindset in an applicant rather than a college degree.

Certainly careers, such as doctors, civil engineers, computer engineers, computer scientists, pharmacists, or pilots who are working on mission-critical or life-dependent programs still require college degrees. However, for the vast majority of other kinds of work, certification, hands-on learning, and proof in the ability to collaborate and deal with highly dynamic, fast-changing environments could be far more desirable to employers than a college degree with less relevant work experience (Chamorro-Premuzic & Frankiewicz, 2019).

## **8.2 The Impact of Free Online Courses**

With the disruption of free online learning platforms, which now have more than thousands of courses from the best universities in the world, those who have less time in educational institutions take this trend of nonformal education as a great learning opportunity to educate themselves to match today's industry workforce needs. In the long run, we could see universities adjusting their models from formal to nonformal education to provide for learners of diverse needs for study and work life in parallel. University professors may not be able to enjoy only teaching and research as they did in the past, but they need to look for effective means to provide knowledge and essential skills for various groups of learners via digital technology (Webster, 2016). In the author's view, it may not be possible now to draw a line for clear-cut boundaries of the digital learning mode in the years to come. What we can see at the moment lies in the products like a variety of online courses. Other teaching techniques using digital devices and real time streaming of learning materials in lessons are yet to emerge to benefit students of the 21<sup>st</sup> century via online learning platforms.

## **9. The Author**

Pannarat Kadish, Ed.D., works as an independent scholar in education and a part-time lecturer in educational management and corporate communication. She has currently held a managerial position at a private company. Her academic and research interest lies in the areas of educational administration, professional practicum coaching, corporate communication issues, remedial language skills, and digital skills development.

## **10. References:**

- Ashe, D. (2021). How to teach online. (Online). <https://www.snhu.edu/about-us/newsroom/2021/01/how-to-teach-online>.
- Bogle, S. (2017). Top 10 reasons why college is important." (Online). <https://www.snhu.edu/about-us/newsroom/2017/08/why-is-college-important>.
- Boutselis, P. (2020a). How do online classes work. (Online). <https://www.snhu.edu/about-us/newsroom/2015/10/what-to-expect-as-an-online-student>.
- Boutselis, P. (2020b). Picture an online degree at your own pace. (Online). <https://www.snhu.edu/about-us/newsroom/2015/09/picture-an-online-degree-at-your-own-pace>.
- Chamorro-Premuzic, T. & Frankiewicz, B. (2019). Does higher education still prepare people for jobs? (Online). <https://hbr.org/2019/01/does-higher-education-still-prepare-people-for-jobs>.
- Digitaldefynd: find the best courses online (2021). (Online). <https://digitaldefynd.com/best-free-certification-course-training-online/>
- <https://www.appsflyer.com/we-are-appsflyer/>. (2021). (Online).

- <https://brainstation.io/why-apple-and-other-tech/>. (2021). (Online).
- <https://ecelliitd.wordpress.com/.../google-does-not-care/>. (2021). (Online).
- <https://www.fnu.edu/college-degree-higher-paying-job/>. (2021). (Online).
- <https://www.northeastern.edu/bachelors-completion/news/is-a-bachelors-degree-worth-it/>. (2021). (Online).
- <https://skillvancer.com/why-google-doesnt-require-a-> (2021). (Online).
- <https://www.uopeople.edu/blog/do-you-have-to-go-to-college-to-be-successful/>. (2021). (Online).
- Jain, S. (2021). Sandeep Jain, Founder and CEO, GeeksforGeeks. (Online). <https://www.indiatoday.in/education-today/jobs-and-careers/story/how-to-get-a-job-in-faang-companies-1818020-2021-06-22>.
- Fernando, J. (2021). (Online). <https://www.investopedia.com/terms/f/faang-stocks.asp> on June 24, 2021.
- Passion In Education.com. (2021). (Online). <https://www.passionineducation.com/types-of-education-formal-informal-non-formal/>
- QS World University Ranking. (2021). (Online). [https://www.topuniversities.com/qs-world-university-rankings?utm\\_source=topnav](https://www.topuniversities.com/qs-world-university-rankings?utm_source=topnav).
- Schroeder, R. (2019). Disrupting the disrupters. (Online). <https://www.insidehighered.com/digital-learning/blogs/default/online-education-was-disruptive-force-25-years-ago-now-it-being>.
- Sinlarat, P. (2020). The path to excellence in Thai education. *RICE Journal of Creative Entrepreneurship and Management*, 1(2), 60-75, doi: 10.14456/rjcm.2020.12.
- University of People. (2021). Do you have to go to college to be successful? The answer: yes and no. (Online). <https://www.uopeople.edu/blog/do-you-have-to-go-to-college-to-be-successful/>
- Webster, K. (2016). Online interactive learning tools. (Online). <https://www.snhu.edu/about-us/newsroom/2016/01/online-interactive-learning-tools>.