

HOW THEY ARE REVOLUTIONIZING EDUCATION AND BUSINESS





PLUS practical tips on how to use MOOCs to leverage your education and career

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INTRODUCTION

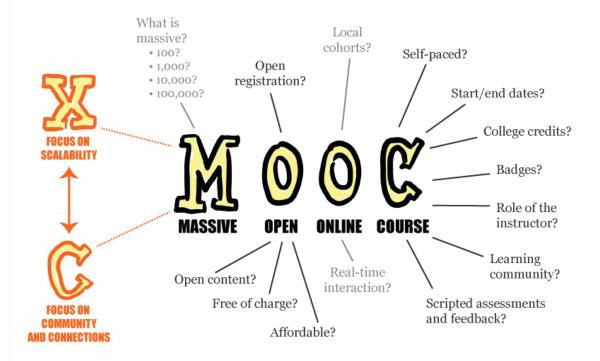
In a time of rapidly changing trends and tools, it is imperative to stay ahead of the technology curve now more than ever. In this e-book I will introduce MOOCs and how this runaway technology revolution is changing education, business, and career paths. From my research I will share with you the top MOOC websites and how to leverage them for your personal advantage whether you are a student, career professional, or business manager. Take advantage of the free resources and links I include at the conclusion of this piece to launch. Continuing education through MOOCs is a surefire resource for maintaining competitive advantage; do not be left behind!

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THE MOOC GLOBAL DISRUPTION

"Software is eating the world!" exclaimed Venture Capitalist and technology expert Marc Andreseen in a Wall Street Journal interview in 2014. Marc was passionately explaining why he felt there wasn't a tech bubble and that more and more technology would be developed at a faster pace, disrupting traditional business models. MOOCs (Massive Open Online Courses) were well on their way of tearing down the walls of higher education and democratizing learning for the entire world. This would have incredible implications for people around the world.



Those who wonder about the impact of technology on the world only have to look at the December 2014 \$41.2 billion dollar valuation of Uber, the mobile app that allows all car drivers to become taxi drivers and



for regular pedestrians to hail them as needed, to see how technology is changing the world. Taxi drivers in cities all around the world are protesting this development as their livelihoods overnight are threatened while local governments come to grips with the loss of tax revenue and regulation of taxi services. Those who are losing their jobs to this new technology are understandably upset but ask users in many metropolitan areas if they like Uber and you will get an almost religious zealotry response.

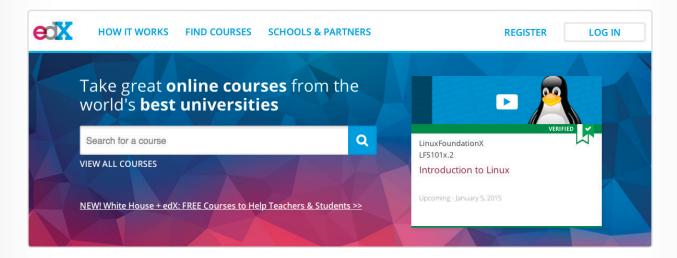
I am a raving fan. On a recent trip to Chicago with my family I waited with my wife and five children in a long line of people outside the Shed Aquarium to get a taxi back to our hotel. The wind off Lake Michigan ripped through the line of stranded tourists and we waited for the taxis one by one to slowly appear. My family was about 50 people back and it looked like we could be there for over an hour. I pulled out my iPhone and used Uber. Within 7 minutes a black Suburban pulled up to the front of the line and my entire family walked up by passing the masses waiting for a taxi and got in the heated vehicle as people in line looked on wondering what was going on. If you can revolutionize the taxi industry with technology and a simple app, all industries can be disrupted. The key is to understand what is going on and how to be prepared, how not to get run over by the runaway technology revolution and to use it for your personal benefit.

The higher education system in the United States is ripe for disruption and it is currently underway. By 2014, the average student graduating from college was drowning with \$30,000 in student loan debt.

Bloomberg reported the cost of a college education had risen over 500% since 1985 and that student loan debt in the US was at \$1.2 trillion more than all credit card debt in the country. The multi-generational pathway to the middle class and success in the United States was quickly becoming a pathway to despair. Rising costs of education along with rising student loan debts coupled with a global recession that started in 2008 leading to high unemployment and lack luster job creation had people wondering how to develop a new system and a pathway for a new generation that could democratize education not just for the United States but the world. MOOCs were about to be born.



I met Krishna Palepu in January 2014 at Harvard Business School (HBS). His wife was an HBS MBA with a former business partner of mine and I had heard a lot about his thirty-year career at Harvard. He is an admired professor and senior advisor to the president at Harvard on global strategy. Over dinner I asked Krishna how higher education was changing and what we should expect in the years to come. I had just received a lecture from a Harvard Business School professor about MOOCs and that Harvard had been late to the party and was playing catch up with other schools like the Massachusetts Institute of Technology (MIT). Krishna told me a pivotal moment in the MOOC revolution came two years earlier when MIT launched a test. A senior professor at MIT wanted to see if a MOOC could work with highly advanced curriculum and chose to do it with one of the most difficult undergraduate classes at the university, Circuits and Electronics. Not knowing what to expect, he posted the course online and allowed anyone to enroll. In short order, over 150,000 people globally signed up to take the course. At the end of the course surprisingly the top performing students where not MIT students but participants taking the class from around the world in their homes. One student was fifteen-year-old Battishig Myanganbayar





from Ulan Bator, Mongolia who scored a perfect score, one of a few in the 150,000 who took the class. The MOOC had proven to be a success and MIT was off to the races with other Ivy League schools like

Harvard putting their top classes in an online MOOC. MITx became EdX, one of the best and most well respected MOOC platforms globally. Have you ever wanted to receive an education from one of the best colleges in the world? Now you can and for free! What happened to little Battishig? He received a full ride to MIT.

Most experts agree the MOOC revolution started in 2012 and like any new exciting opportunity it exploded with investments from big venture capital firms and many new players entered the space to disrupt the old vestiges of power in the higher education world. Krishna warned that everyone will have to change but that the big brands like Harvard and the rest of the Ivy League schools and other top tier universities will have an easier time weathering the storm of change. After all, the brand

"All schools will be under immense pressure to lower cost and increase value for their students."

itself is so strong everyone wants to attend those institutions but what happens when you can get a world-class education from these institutions for free? Will people still be willing to pay 30-40k a year to obtain a degree with the prospect of accumulating massive debt and having a hard time finding a job at the end of the process? Krishna said all schools will be under immense pressure to lower cost and increase value for their students and some will have a harder time adjusting than others. The revolution was under way.

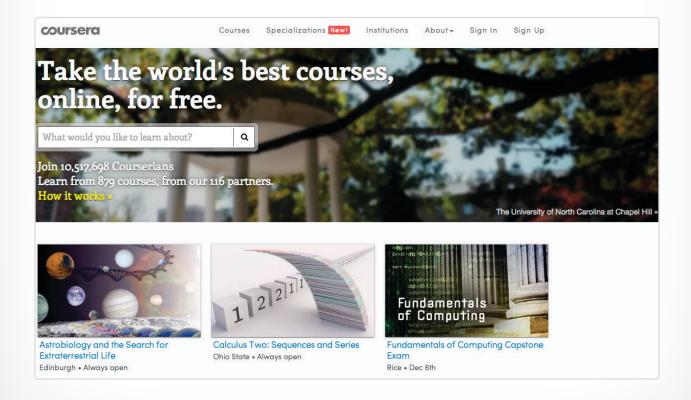


Will people still be willing to pay 30-40k a year to obtain a degree with the prospect of accumulating massive debt and having a hard time finding a job at the end of the process?

TOP MOOC WEBSITES

Many players entered the space almost overnight to start building MOOC platforms and to aggregate the best teaching from around the world. Former Stanford professors quit their jobs and started Coursera.com, one of the top for profit MOOCs in the world. Udacity.com and Udemy.com were also started and both offer some of the finest teachers and courses from the best institutions from around the world. For those who wish to complete courses and keep track of their progress, they also offer certifications that verify you passed these courses. EdX.com and Khan Academy are both non-proft with Khan Academy receiving funding from the Bill and Melinda Gates foundation with the goal to help provide a world-class education available to everyone globally.

| NAME | ТҮРЕ | SOURCE OF MOOC |
|-----------------|------------|--|
| 1. Coursera | For profit | Founded by Stanford Professors |
| 2. Udacity | For profit | |
| 3. Udemy | For profit | Anyone can upload a course |
| 4. EdX | For profit | Started by MIT. Harvard, Ivy League, and top universities have courses available |
| 5. Khan Academy | For profit | Funded by Bill and Melinda Gates Foundation |



WHAT TO EXPECT IN A COURSE

As more and more universities and top educators make courses available on these MOOC platforms, it is becoming possible to study almost anything you are interested in. EdX has courses in business management, economics, finance, biology, computer science, engineering, history, law, literature, physics, science,

MOOCs are a great way to outwork the competition while not having to outspend them

and social studies just to name a few categories and these contain hundreds of different classes. Udemy has over 20,000 different courses and this platform allows anyone to load up a course on material they may be an expert on. Legendary CEO of GE, Jack Welch, has a leadership course and there are others on drones, public speaking, stock markets, and accounting. Crown even has most of our education and training loaded on Udemy for our global audience. For those looking for advanced education, Crown also offers what many are calling a "mini Harvard MBA" with *Venture Academy* with over 32 hours of video taught by Harvard MBA and Baker Scholar Wade Myers. No matter what you wish to study you can find the right course for you. If you

are looking for career advancement, want to increase your chances of landing your dream job, or wanting to add new skills to stay ahead of your competition, MOOCs are a great way to outwork the competition while not having to outspend them.

Example Course - Coursea - University of Michigan, Intro to Finance

Here is an example of a course a friend of mine in taking at the University of Michigan. Drayton graduated with honors from Clemson University and was admitted to the prestigious London School of Economics (LSE) where he received his Masters degree with honors. He is finishing a year-long internship in Knox-ville and mentioned to me over dinner a few months ago that he wanted to gain more insight in the world of finance and I recommended using a MOOC. He enrolled in this course and is having a great experience. The course is 15 weeks long and he estimates that he is spending about 5-6 hours a week watching online videos of the lectures at the University of Michigan, reading, and studying the problems provided in the course. This is a certificate program so he must receive a passing grade of 70% to get credit for the course. Go to the next page for a description of the course.

Not only is he taking a finance course from the prestigious University of Michigan, the same course others are paying thousands for, but he also has access to the teachers and study groups...for free! Yes, the teachers hold regular office hours on the weekends so if he has problems he can reach out to get help. For those who want to engage in thoughtful dialogue with classmates and wonder if the MOOC environment will offer that, the answer is yes. The UofM website offers an online portal where students can gather to discuss their work, problems, and help each other. Teacher assistants also join in when needed so this MOOC community offers all the support and elements of community that you would expect to receive in a university environment.

Intro to Finance: This course is primarily devoted to the fundamental principles of valuation. We will learn and apply the concepts of time value of money and risk to understand the major determinants of value creation. We will use both theory and real world examples to demonstrate how to value any asset.

Instructor: Gautam Kaul- University of Michigan

15 weeks

Average 6 hrs. work per week

Available in English, Chinese, Portuguese, Spanish, Ukranian subtitles.

Course Format: The class will consist of videos, broken up into bite-size pieces with their lengths varying based on the topic. Almost every video segment will have opportunities for you to assess your knowledge. You are strongly encouraged to take every opportunity to work on the problems/examples before you view my analysis. There will also be standalone assignments every week that are not part of videos, and a (not optional) final exam. Doing the assignments is the way you will learn the material.

Problem Examples

(15 points) Starbuck's is considering opening another store in Chicago. A store is expected to have a long economic life, but the valuation horizon is 7 years. The store in Chicago is expected to create revenues of \$3M in the first year and they are likely to grow at 2% per year thereafter. The cost of goods sold are \$1.2M in year 1 and they are also expected to grow at 2% per year thereafter. Selling and administration costs are likely to be \$0.5M in the first year and then grow at 5%. The tax rate is 35%. Starbucks is so good at managing its stores that working capital increases can be assumed to be negligible. But Starbucks will have to invest \$3.5M in purchasing a store (with land). The good news is that this outlay can be straight line depreciated over 7 years. Also, Starbucks has estimated that the terminal value in year 7 dollars will be \$10M. This value is the value of all cash flows in year 8 and beyond. What is the NPV of opening this new store if the appropriate discount rate is 7.75%?(Again, all cash flows except initial investments happen at the end of the year. Enter just the number without the \$ sign or a comma; round off decimals.)(You are strongly encouraged to use a spreadsheet.)

(15 points) Supersoftware, Inc. earns a total of \$100 million each year to pay out to their 4 million shareholders. They are in a very competitive business and have found it a struggle to come up with new ideas. They have however just uncovered a new innovation that will involve a one-time investment one year from now (t = 1) of \$160 million for a system upgrade that will increase their cash flows by \$20 million per year starting the following year (t = 2) in perpetuity. If Supersoftware's cost of equity capital (the discount rate for equity) is 18%, by how much will this new idea change their price per share? (Draw time line to understand what is going on.) (Enter just the number without the \$sign or a comma; round off decimals.)

(15 points) You have been living in the house you bought 10 years ago for \$300,000. At that time, you took out a loan for 80% of the house at a fixed rate 15-year loan at an annual stated rate of 9%. You have just paid off the 120th monthly payment. Interest rates have meanwhile dropped steadily to 6% per year, and you think it is finally time to refinance the remaining balance. But there is a catch. The fee to refinance your loan is \$4,000. Should you refinance the remaining balance? How much would you save/lose if you decided to refinance?

CERTIFICATIONS AND CAREER SAVING CREDENTIALS

Each MOOC has its own method to grant credit or certifications to verify that the user has passed the course. Although everyone taking a course is ultimately doing it to gain knowledge and skill in a certain disciple, most are doing this to advance in their career and need to have the ability to prove these competencies on a resume. I will highlight later the proper way to display your certifications on your LinkedIn account and resume. For now, I want to address the certification issue. I highly recommend taking courses where a certification is offered. For example, EdX offers an Honor Code Certification and a Verified Certificate of Achievement. Some institutions go one step further and offer an advanced XSeries Certification that denotes advanced learning and achievement in a particular area. Harvard offers a XSeries certificate for a history course on China. It consists of four classes that each cost \$90. If you pass each course and receive a Verified Certificate of Achievement for those courses, you will be granted an XSeries certificate for that block of learning. MIT offers a similar XSeries for a technology block of classes. These classes cost \$50 each and again you must receive a Verified Certificate of Achievement for each one to receive the XSeries Certificate. These are just two of many certificate programs in the EdX portfolio. If you are taking MOOCs to advance your career, I strongly encourage you to only take certificate-granting courses that prove a level satisfactory of completion.

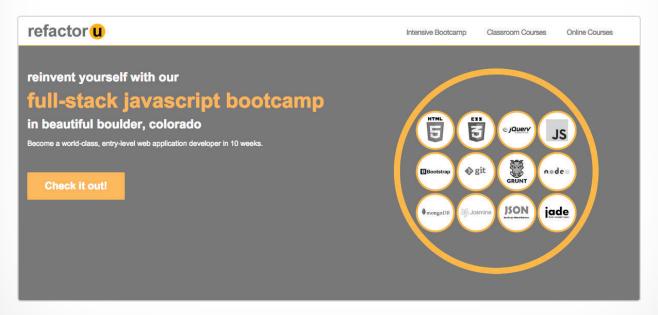
Learn to Code - Become employed for life

I sat in stunned disbelief as I listened to a senior executive at a top placement firm in the country tell me that the unemployment rate in Nashville, TN for people with a technology background was 0.3%. The national unemployment rate was above 7% and when you counted the people who had just given up searching for jobs, most experts agreed the real unemployment rate was probably between 13-17%. "Bob, I am placing students who just graduated from college with no experience and C grade point averages with companies and they are getting six figure contracts. They are in such demand that they can name their starting salary and are getting it. I have never seen anything like this in my 20 year career" opined this executive. Most experts agree that the greatest job growth and expansion over the next 20 years will be technology related. Those who know how to code (program) and develop software will not only be in demand but will basically control the world. The need for programmers is so prolific that even the top business schools are trying to prepare their graduates with basic skills. A Bloomberg article on July 11, 2014 titled *B-Schools Finally Acknowledge: Companies Want MBA's Who Can Code* tackled the subject. The opportunities are so great for people with

programming backgrounds that specialized MOOCs are being set up to teach just programming. Through my research and many interviews I have discovered the top two to be Code Academy and ReFactorU.

The MOOC environment especially lends itself to the dissemination of knowledge like coding. Many MOOCs have entry level programming courses to brush up on a host of skills and to gain the basics from HTLM5, CSS, Ruby on Rails, Java Script Coding, and others. Applying for the 10-week bootcamp course at RefactorU requires at least an entry level of proficiency but upon graduation you would be able to program with the best. Not a bad investment to be able to reinvent yourself and start a new career in the modern day gold rush! Unlike many other professions the technology industry is a meritocracy. Either you know it or you don't. Either you can code or you can't. For those who are looking for a new career I would highly encourage you to consider the tech sector and how you can leverage free MOOCs from the best universities to develop your coding skills. For those who are in mid career transition and might not want to be a full time coder but are looking for career advancement, I highly encourage you to look at these same courses so you can learn to speak the language of technology and have basic understanding of programming.

Everything is being disrupted by technology! Whether you are in HR, finance, marketing, product development, fundraising, sales, or management you will be leveraging and implementing new technologies in your business for the rest of your career. If you understand this, speak the language, and can help navigate the labyrinth that so many find confusing you will find yourself in the drivers seat and in a position of power within your organization. Take some time to start building your resume with programming courses from CodeAcademy and RefactorU and you will not only protect your job but vastly increase career opportunities for yourself in the future.



APPLICATION FOR STUDENTS, CAREER PROFESSIONALS, AND BUSINESS MANAGERS

Who can use this?

There are three key segments that can leverage MOOCs; students, mid to late career professionals, and business owners/managers.

Students Whether you are a high school student or college student it is never too early to start building your resume with skills that will make you more marketable in this very competitive job market. I am consistently amazed at how much time is wasted by young people on meaningless pursuits that will in no way ever reap a reward for them. With a global jobs market getting more competitive each day, I highly encourage young people to leverage as much

Mid to late Career Professionals

Students

Business owners/managers

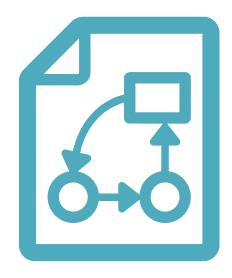
spare time as possible to gain skills that will put them ahead of the competition when they enter the job market. Watching Glee, America's Got Talent, or dominating another season of Madden Football is fun now but if you can't find a job in a few years and your skill sets are lacking you will wish you had all that time back and invested in a world-class education. Have fun but make sure you take care of the most important things first, your education. If you are a college student studying for a particular career field, interview people ahead of you and ask them what skills they need to be excellent at their job that they did not get through their normal degree program. During your off time or during the summers you can add these skills by taking MOOCs. This will show future employers that you are a driven, high achiever, and were thinking ahead to acquire skills you knew you would need for your career!

Mid to Late Career Professionals As I highlighted earlier, the biggest gap many mid-career professionals are finding is they lack the understanding and knowledge of technology. As they enter leadership positions and look to take greater leadership roles this lack of experience and knowledge will hurt them if not corrected. For those who add these skill sets to their resume, they will be at the top of the list for promotion and leading new technology implementation programs at their companies. This is a great way to diversify yourself from others you are competing against for that big promotion. Furthermore,

"If you are not continuing your education through professional development you are being left behind."

when I see the resume of someone who has been in the workplace for 15 - 25 years and the last education they have listed is their college degree from 20 years ago I always have questions. Why haven't you had any professional (educational) development in the last 20 years? My professors at Harvard Business School have stated the "shelf life" of a college degree today is about three years, meaning, many times what you learn will be obsolete in three years due to the fast pace of change. It is critical to stay on top of advancements in your field of study and to continue to learn. If you are not continuing your education through professional development you are being left behind. You don't want your resume to show your last meaningful education being 20 years ago. There should be an arch over time showing continuing education and development in your career. If you are advancing in your career

and this area of your resume is stagnate make a plan to fix it today! If you need help and ideas, get in touch with me at www.RobertDickie.com.

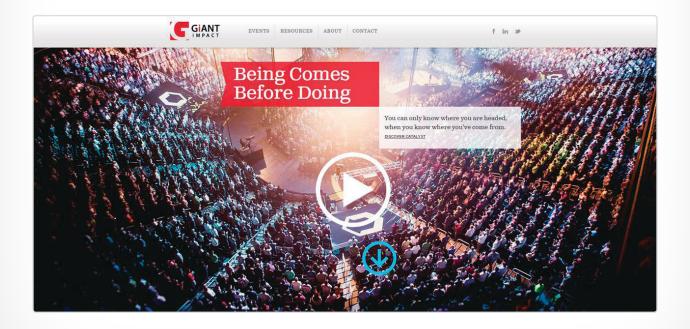


The biggest gap many midcareer professionals are finding is they lack the understanding and knowledge of technology. If you are advancing in your career and this area of your resume is stagnate make a plan to fix it today! **Business owner/managers** One of my favorite business quotes is in the book *The Fifth Disciple* by Peter Senge. Peter says, "A company's only sustainable competitive advantage is its ability to learn

faster than the competition." In this competitive global market it is imperative that you hire the best and continue to invest in training your team. My Navy SEAL friends routinely remind me that you win or lose with your team and in business it is no different. You go into battle every day and the fate of your company rests in the hands of your team and how they perform. It is pretty obvious how business leaders can leverage MOOCs to help their staff advance and add critical skill sets to their tool belt to enable them to perform better. Whether it is time or money, you need to invest in their development and education. In a recent seminar with a group of global CEO's, a Harvard Business School professor was passionately arguing this very point when a CEO raised his hand and asked, "What if I invest a bunch of money in the

Whether it is time or money, you need to invest in your staff's development and education.

education and development of my team and then they leave?" The professor quickly replied, "What if you don't and they stay?" Your investment in your team is one of the most important investments you can make. If you have a high performer on your team I strongly encourage you to think about GiANT Impact's Executive Core Training. It is the best leadership program I have found. For those who need a deep dive understanding team dynamics and interpersonal relationships, I suggestion Crown's Personality ID for Teams.



TIPS FOR JOB AND **CAREER TRANSITIONS**

Job Placement Services

Many MOOCs are starting to offer job placement services for their brightest students like traditional colleges. Udacity has over 400 employers to include big names like Google who are looking for top talent completing these courses. Coursera is currently offering placement services for those in the software engineering space and EdX is currently only offering these placement services in Boston but plans on offering this to a larger audience as it builds out its process. For those who are looking for a job or looking for a career transition advancing your skill sets and education through a MOOC could open a door for a prospective employer who is impressed with your work.



Resume Presentation

Most people are taking these courses to advance in their careers and just like all other forms of education it is important to be able to display this on your resume (both online and offline) and talk about your experiences in an interview. For your resume, I recommend creating a special section to highlight the courses you have taken and the certifications you have been awarded. This is similar to how you list your other forms of education but I would title this section "Professional Development or Continuing Education" and most experts I have interviewed agree. The acceptable way to present your courses and certifications is as follows: institution name, course name, instructor, date, and certificate awarded. It might look like this:

Continuing Education

University of Michigan, Intro to Finance, Instructor: Gautam Kaul, 9/30/2014,

Certificate of Achievement

Duke, Advertising and Society, Professor: William O'Barr, 10/27/2014,

Statement of Achievement

This can be added to your paper resume and also your LinkedIn account. As a side note, I found working with professional head-hunters and the largest placement service companies in the United States that a

common theme was, "If you are not on LinkedIn you don't exist." It is the most important social media platform for you to master to have success in your career. If you would like to learn more about this we will discuss it in a future webinar and I also have a chapter on it in my book *The Leap: Launching Your Full-Time Career in our Part-Time Economy*. If possible, mention how you have used the skills and knowledge learned in your job. Certainly be prepared to discuss this in an interview.

Interview Preparation

During the interview process be prepared to share specific things that you learned in these classes and how you took and applied that knowledge in your job. Remember that the standard for advanced education has been college and university learning. Most HR professionals and people hiring know about this process and have assumptions of what a person must know or retain based on degrees earned. The MOOC environment introduces something new and just like the iPod it will take awhile for everyone to understand how to use it and for it to become as common and understood as iPods are today. Because of the newness of this, it is up to you to help explain why you took the course, how it helped you in your job, what you learned,



and how you have leveraged these new skills. A key selling point that I would highlight is that you are an earlier adopter of this new revolution. As opposed to being a follower you are at the forefront of this space, setting the trends, understanding technology and how it is disrupting business. It also shows that you feel comfortable thinking outside the box, trying new things, learning, and adapting. There are all sorts of selling points that you can speak about. I don't view a MOOC education as inferior to traditional learning, I see it as the new form of education that one day will be the dominate worldwide accepted form of education. Many experts agree. Remember, the first drivers of a modern day car probably received many strange looks from people on

the roads with their horse and buggies. We know who won out over time right? Leveraging MOOCs for your education places you as the driver of the car at the start of a new global revolution. When asked about your MOOC experience and why you decided to take a MOOC to advance your education I would never mention, "Because it is free." There are many things you want your prospective employer to see you as, but cheap is not one of them. If you are seen as a technologist who likes trying new things, advancing their education, experiencing new learning environments with the freedom to choose from the best schools and professors around the world to tailor a specialized education that caters to your career objectives and needs...that is awesome! Employers will love to have those people on their team. Doing it "because it was free" sends a different message and not one that you want associated with your name and personal brand. Again, this is something I cover in more depth in *The Leap*.

NEXT STEPS AND RESOURCES

As I mentioned earlier, over the past few years I have been studying and writing about the changes in the global economy and how it is impacting all of us. I cover MOOCs in my book as a major disrupting force changing education and business but also as a powerful tool that everyone can use to advance their careers or businesses. I highlight many other changes in the economy and how to prepare for the future. The title of the book is *The Leap: Launching Your Full-Time Life in our Part-Time Economy.* You can learn more about my book at www.TheLeapBook.com and follow more of these discussions on my blog at www.RobertDickie.com. For those who wish to learn more about MOOC expert Laurie Pickard and her journey to obtain a free MBA education from the best universities in the world follow her at www.No-PayMBA.com.



I hope you see the potential at your fingertips with this MOOC revolution happening all around you. You have the ability to receive a world-class education from the finest professors and institutions the world over. You will only get out of it what you put in to it. If you decide to take coursework from the best schools like Harvard, MIT, Yale, Princeton, Duke, Michigan, and others understand it will be hard. This won't be easy just because you are taking this as a MOOC. It is the same professor, same reading, problems, etc. If you always wanted to have this type education, now is your chance but be willing to work for it. The difficult path in life provides the greatest rewards because so few are willing to pay the sacrifice to get to the end. The iPod revolutionized the music industry forever allowing people to carry 10,000 songs on a little device in their pocket. The MOOC revolution is democratizing education for the entire world. Now anyone with a computer and internet connection can receive the best education in the world. What will you do with this opportunity?

LIST OF RESOURCES

| Coursera |
|--|
| Career Direct |
| Code Academy |
| EdX |
| GiANT Impact Executive Development |
| Khan Academy |
| PID Team |
| Refactor U |
| RobertDickie.com |
| The Leap: Launching Your Full-Time Career in our Part-Time Economy |
| The No-Pay MBA |
| Udacity |
| Venture Academy |





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