

# THE ULTIMATE

**COMMIT TO REINVENTING  
YOURSELF TO STAY RELEVANT**

**JUST THE FACTS**

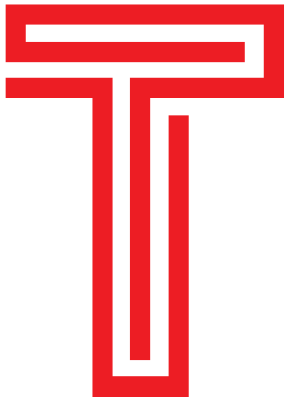
When it comes to career development, it makes sense for quality professionals to follow quality's continuous improvement mantra and be proactive. That includes looking for areas to improve themselves by learning and developing skills in this complex, technology-driven marketplace.

The author advocates that quality professionals disrupt themselves on their own terms, rather than wait and react to change, and possibly become obsolete. Quality professionals must reignite a curious and inquisitive mindset to instigate their renaissance.

Consider learning new skills around finance, coding and data science to complement your experience and existing abilities, and make yourself more valuable and a stronger asset to your organization.

**Be proactive, take control and kick-start your career journey on your own terms**  
by Peter-Elias Alouche

## BLOCKBUSTER VS. NETFLIX



he playing field has changed fundamentally for modern quality professionals. As part of our continuous improvement mantra, it is imperative that quality professionals step back and reframe their current and future roles in organizations.

To do so, we must look outward and have a better understanding of what is happening around us with respect to ever-changing customer expectations, workplaces, emerging technologies, industries we serve and compliance requirements. We must continue to develop the skills and mindsets that will help us during the next 10 years so we can help our organizations succeed.

### The changing landscape

As quality practitioners, we know that change is constant. Whether we're firefighting the nonconformance du jour or partnering with product development to launch the next offering, we recognize that our world is very complex.

Quality professionals can no longer just enforce requirements and drive continuous improvement. Quality professionals now are being asked to lead cross-functional teams for transformation initiatives and secure executive funding, all while staying up to date on the latest regulations, industry requirements, technologies and organization-specific standards. Our soft skills are just as important as our technical ability and subject matter expertise.

As the demand for highly skilled labor increases when it comes to emerging technologies under the Quality 4.0 umbrella, it is imperative that quality professionals

A classic example of a new marketplace entrant challenging an incumbent is the way Netflix disrupted Blockbuster. In 1997, Netflix offered its customers a new way to consume movies using the postal service. Each month, customers could request a batch of DVDs from Netflix, and they would mail them to you. Each individual batch was limited, but there were no limits on the number of times you could request individual batches each month.<sup>1</sup> The caveat was that you were typically getting access to older movie content, which served the needs of a particular customer group.

Blockbuster, on the other hand, offered its customers (myself included), the ability to watch the latest newly released movies. Almost every Friday, I would visit a Blockbuster store to rent the latest release. Sometimes, I even called ahead to place a DVD on hold before I arrived to pick up my next rental. Blockbuster was serving a market need where customers really wanted access to the latest and greatest movies by driving to the local store and watching it later that evening.

The business models were fundamentally different until Netflix built up its capabilities and new streaming technologies became available, which helped Netflix attract Blockbuster's core customers—and without late fees.

Blockbuster even had the opportunity to acquire Netflix for \$5 million in 2000 but declined. Fast forward to Dec. 31, 2010: Blockbuster filed for bankruptcy while Netflix generated \$2.163 billion in revenue and 20 million subscribers.<sup>2</sup> Sidebar Figure 1 depicts Netflix's disruption story. —P.E.A.

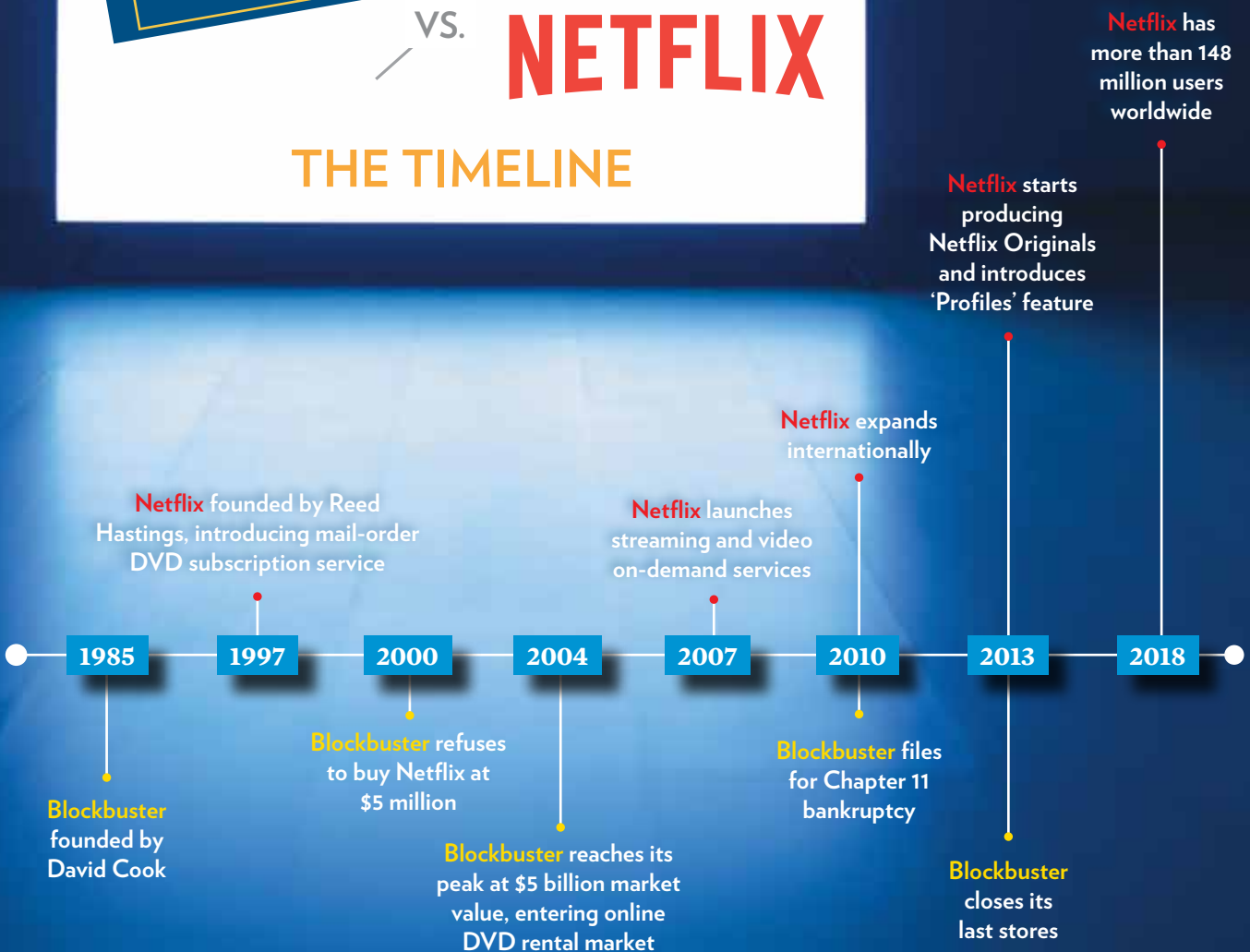
#### REFERENCES

1. DVD.com, Netflix Subscription Plan, <https://tinyurl.com/ta1q84lc>.
2. Netflix Inc. 2010 Annual Report, Form 10K, <https://tinyurl.com/1m3j9pa3>.

With an understanding of the true meaning of disruption, ask yourself what you can do as a quality professional to avoid obsolescence.

SIDEBAR FIGURE 1

# Blockbuster vs. Netflix



iStock.com/Artem Peretiakko

Source: Stratability Academy, "Winning the Customer Journey Battle: Netflix vs. Blockbuster Case Study," April 25, 2019, <https://tinyurl.com/stratability-block-v-netflix>.

## DISRUPTION OPTIONS

- Online learning:** Don't be afraid to try new ways of learning. You don't need to sit in a physical classroom in front of a teacher. Leverage online resources such as YouTube, Udemy, Coursera, Codecademy and TED Talks to help you on your journey. You can consume the content at your own pace, and it's ultimately up to you to apply what you've learned in your personal and professional lives, where you can learn by doing rather than learn by watching.
- 3D printing:** Sooner or later, there will be a 3D printer in every household. We're not there today, but we will get there. 3D printing is becoming increasingly ubiquitous in prototyping and manufacturing in various industries ranging from aerospace and automotive to printing biomaterials for transplants and home construction. Start to learn about 3D printing technology so you're ready to adapt in your business to produce better quality products, offer mass customization to customers and ultimately improve customer satisfaction.
- Learn to code:** Ten years ago, the software engineer and entrepreneur Marc Andreessen wrote in the *Wall Street Journal* that "Software is literally eating the world."<sup>1</sup> The sooner you learn how to code, whether at the application layer, hardware layer, Android or iOS, the better off you'll be. The economy is going to continue to change, and the jobs of old no longer will be the jobs of new. This is increasingly important for quality professionals, who may be able to help automate a routine process by building a small program that will process data in an automated way using Python, for example, rather than manually processing individual pieces of data.
- Data science:** Quality professionals are naturally strong at analyzing data, applying statistical models and working with cross-functional teams to address root causes of problems. A related skill to develop is in the area of data science. As artificial intelligence (AI), machine learning and deep learning become more widespread in society, there's an opportunity for quality professionals to assume the role of data scientists to help develop and shape the models that will be used by AI to provide recommendations, classifications and predictions as we apply AI to quality processes.
- Cloud technology:** Cloud technology is going to continue to affect our daily lives—especially for the modern quality professional. Make sure you learn about different enterprise quality management software options available in the market, such as ComplianceQuest, Veeva, EtQ, INTELEX or Sparta Systems, and how you can leverage cloud SaaS-based quality management systems to help deliver on the promise of your organization's transformation initiatives. —P.E.A.

### REFERENCE

1. Marc Andreessen, "Why Software is Eating the World," *Wall Street Journal*, Aug. 20, 2011.

also keep pace with emerging technologies. Given all of this change, it's clear there are significant opportunities for the role of the modern quality professional and challenges we must overcome in the years ahead.

### What is disruption?

Disruption is not a nuisance or a temporary distraction. When disruption occurs, it is a game-changer and has a material impact on day-to-day activities. Many people reference the term "disruption" loosely in everyday language.

According to Clayton Christensen, a Harvard professor who developed the theory of "disruptive innovation," disruption describes a process whereby a new entrant in a market segment focuses on meeting unmet needs for a set of customers. Incumbents will gravitate toward meeting the needs of their most profitable customers through incremental innovations. This leaves a portion of the market with unserved needs and creates an opportunity for new entrants.<sup>1</sup>

As new entrants begin to build their customer base by addressing unmet needs, develop their own capabilities, and commercialize innovative solutions and business models, they eventually can begin to encroach on the profitable customers coveted by incumbents. This is the playing field where disruption occurs: when a new entrant challenges incumbents and begins to bite into market share because of their innovative solutions and business models.

Another important characteristic of disruption is that it is a process and takes time to materialize. See the sidebar "Blockbuster vs. Netflix" (p. 18) for a classic example of how an innovative incumbent took a bite into market share.

The main takeaway from the Netflix-Blockbuster saga is that disruption is a process that evolves over time. New entrants will fly under the radar initially as they develop their skills, capabilities, customer base and

# Bridging the Finance Gap

Key finance concepts include net present value (NPV), internal rate of return (IRR) and payback period. The best way to measure the potential benefit of a project is to identify the cash flows over a time period, while including capital investment and expected benefits in the form of cost savings or increased revenue. Use that data to identify the best projects to work on. Sidebar Table 1 (p. 22) shows a simplified NPV analysis for a theoretical quality initiative over a three-year period.

First, capital must be examined through the lens of risk tolerance from an organization's perspective. This is where the weighted average cost of capital comes into play. This is used to discount future cash flows and convert future dollars into today's dollars. Remember that old saying that a dollar today is worth more than a dollar tomorrow? That's because of effects such as inflation and the buying capacity of that future dollar.

Another important consideration is to think critically about all of the cash inflows (revenue and cost savings) and cash outflows (costs and capital investment) each year. These values ultimately will be used to calculate the free cash flow in each year and the discounted cash flow.

When all is said and done from the NPV analysis, you'll end up with three key values: NPV, IRR and payback period. These are the metrics that should be used to compare projects the organization may consider investing in. Speaking the language of

management here means being able to walk through this analysis with your leader and discuss the true benefit of your project compared to others.

At this point, after you've gone through the NPV analysis by doing it yourself or getting the help of your finance business partner, you can rank your project against other projects that your department, business unit or even organization are considering to invest in the next fiscal year. As part of the organization's budgeting process, it will be much easier to decide to invest in one project or another by comparing the NPV, payback period and other more qualitative benefits once summarized. Sidebar Table 2 (p. 23) includes an example.

In this case, we clearly see that the resource gap for the quality department, partner development and statistical process control (SPC) integration initiatives will have a meaningful impact on the organization. We can generate about \$6.1 million in benefits in today's dollars by investing in these three projects. We also see that we'll start to get a payback on our initial investment after about 13 months for two of the initiatives, and after 21 months for the SPC integration initiative.

This approach will not only help us to get the ear of upper management, but it also will force us to think critically about the problems we're trying to solve in our organizations while accounting for the costs and benefits. —P.E.A.

**The future is bright for today's—and tomorrow's—quality professional. There is an abundance of opportunity to develop new skills, solve complex problems and affect the quality of the products and services our end customers use every day.**

opportunities using newer technologies and business models. After disruption has occurred, there is a significant impact that can be life changing.

## Disrupt yourself on your own terms

With an understanding of the true meaning of disruption, ask yourself what you can do as a quality professional to avoid obsolescence. If we apply the definition of disruption to the quality professional, we can envision different ways we could be replaced by new entrants.

New entrants could be the next generation of employees entering the workforce or the introduction of new technologies such as artificial intelligence (AI) that will complete daily, routine tasks that we used to perform.

Before we get disrupted, we must remember that disruption is a process that takes time to take shape. To avoid becoming obsolete, we must preempt this process and take action to disrupt ourselves on our own terms so we take control of our destiny.

One of the first things to do is take heed of Jedi Master Yoda’s advice—to paraphrase, first unlearn what we have learned over the course of our careers and personal lives.<sup>2</sup> This really means becoming more conscious about what we can and cannot influence. We can learn new skills in completely new domains—even if that domain is from our roots.

When we were first born, we were curious about the world and how things worked. We got excited about walking, new smells, new people and all kinds of new experiences. We must reignite a curious and inquisitive mindset in the world of the quality professional to instigate our renaissance. Fundamentally, not much has changed in quality since the days of Joseph M. Juran, W. Edwards Deming, Philip B. Crosby and Walter Shewhart. Why?

According to Malcolm Gladwell, it only takes 10,000 hours to become world-class.<sup>3</sup> That is about 1,250 days, or 3.4 years, to be completely focused eight hours a day to develop a new skill at the world-class level. It’s going to take time and investment to develop the new skills needed to remain



Looking for a career change? Check out the ASQ Career Center, which is filled with hundreds of job opportunities in quality. You also can create job postings for quality roles at your own organization. For more information, visit [asq.org/career](http://asq.org/career).

relevant in the ever-changing quality management landscape. Check out the sidebar “Disruption Options” (p. 20) for a list of key areas to consider as part of your disruption.

**How to finance your next global quality initiative**  
Another important skill for quality professionals to develop is the ability to understand and speak the

language of management—that is, finance. As quality professionals, we can communicate best with upper management when we can demonstrate and clearly articulate the financial benefit of the initiatives we want to advance. At the end of the day, senior managers are in place to make responsible decisions about how to efficiently use capital to maximize return on investment.

This, of course, is not a new concept. Juran highlighted it in *The Quality Trilogy*.<sup>4</sup> It consists of quality planning, quality control and quality improvement. Because managers frequently do not have deep training as quality professionals, we must bridge the gap to translate our quality initiatives in ways they can understand so we can ultimately get the support

SIDEBAR TABLE 1

## 3-year net present value (NPV) example

Initiative No. 1: Resource gap for quality department. All figures in U.S. dollars [\$USD]

	Team	member	labor	rate	WACC [USD/hr]	Year		
						25%		
						2018	2019	2020
						1	2	3
Total revenue						\$4,550,000	\$4,970,000	\$5,400,500
Total costs						\$4,875,000	\$1,120,000	\$1,120,000
Free cash flow						(\$325,000)	\$3,850,000	\$4,280,500
Discounted cash flow						(\$325,000)	\$3,080,000	\$2,739,520
NPV						\$5,494,520		
Payback period (months)						12.86		
Internal rate of return						1,186.96%		

### Assumptions

- Weighted average of capital costs is 25% based on view of capital.
- Assume each employee costs \$100,000 USD (fully burdened rate including salary and benefits).
- Assume quality team consists of existing resources (5 for quality engineers, 1 inspector, 2 supplier quality engineers, 1 quality manager, 2 Black Belts, 1 Green Belt).
- Assume existing revenue stream grows at 5% annually.
- Assume that projects to improve existing products with new features/fixes contributes 80% of ongoing existing revenue.

WACC = weighted average cost of capital

SIDEBAR TABLE 2

## Example of net present value (NPV) summary table

Priority	Initiative	Description	Corporate objective	Investment [\$USD]	Payback period	NPV [\$USD]	IRR	Importance
1	Resource gap for quality department	Address resource bottlenecks	Market share	\$4,875,000	-13 months	\$5,494,520	1,187%	Must have
2	Partner development	Continue to scout, develop and add partners	Partner ecosystem	\$14,831	13 months	\$546,213	1,874%	Must have
3	SPC integration	Cloud-based SPC	Product vision	\$46,154	-21 months	\$99,446	166%	Should have
4	Customer satisfaction	Closer collaboration with key clients, sharing vision, usability testing	Stickiness	\$39,769	-5 months	\$1,429	26%	Should have
5	Team building	Quarterly team-building event and educational investment to improve morale/productivity	How we do things and employee growth	\$13,000	N/A	(\$31,720)	N/A	Must have

IRR = internal rate of return

SPC = statistical process control

we need to make an impact. See the sidebar “Bridging the Finance Gap” (p. 21) for details on some of the basics

### What's coming next?

The future is bright for today's—and tomorrow's—quality professional. There is an abundance of opportunity to develop new skills, solve complex problems and affect the quality of the products and services our end customers use every day.

Either we can take more of a leading role in what will come next in our journey by kick-starting our disruption on our own terms, or we can react after the fact and deal with the consequences. Along the way, we must continue to collaborate and influence others, and sometimes that means getting buy-in from upper management to support strategic initiatives that we want to rollout.

To do so, we must speak the language of management using finance concepts. Whether we get help from the finance team or develop this competency ourselves, it's imperative that we present key strategic initiatives requiring significant investment through the lens of a net present value analysis to demonstrate the cost and opportunity associated with a particular project. **QP**

#### EDITOR'S NOTE

The references listed in this article can be found on this article's webpage at [qualityprogress.com](http://qualityprogress.com).



### NEED ADVICE?

ASQ offers a collection of resources for those seeking jobs in the quality field. Start unpacking various professional services to help you build and manage your career for maximum success. Visit [careers.asq.org/jobseekers/resources](http://careers.asq.org/jobseekers/resources).



**Peter-Elias Alouche** is the CEO and principal consultant at dqdt Inc. in Toronto, Ontario. He is also the head of products—enterprise quality management software at ComplianceQuest Inc. Alouche has an MBA in innovation and entrepreneurship from the Rotman School of Management at the University of Toronto. He is a member of ASQ.