Hands On Technical Training

White Paper

The High Cost of Free Training

Abstract

In the 21st century, no trend in corporate training has had more effect on the marketplace than the move to the contributor model, in which corporations pay little or nothing for content, charge consumers next to nothing, and distribute mostly minuscule royalties to developers. While the idea of cheap or free training is attractive, the costs are high both to society and to enterprises. After you do the math, free training is no bargain.

WHAT HAS HAPPENED?

Certain trends in corporate training are clear and undebatable.

More money than ever is being spent on training. It varies from year to year, and there are momentary dips, but overall, the amount spent on training keeps going up. This makes sense, and there is plenty of data to back up the statement.[1]

Digital training accounts for most training. To some, it's still a shocking conclusion, but there is little doubt that enterprises are spending more on digital training -- training in which the primary delivery mechanism involves computer technology -- than they are on face-to-face instructor-led training or any other type of education.[2]

Tiny Training is in vogue. It's still hard to quantify this, but there is a lot of talk, and a lot of marketing, around the idea that extremely brief chunks of training are the thing of the future. Never mind that the basis for much of this trend is the utterly erroneous and discredited notion that attention spans are shrinking.[3] Never mind that a lot of this thinking mistakes quick-reference tools for instances of formal training.[4] Too many managers are enamored of the idea that there is some magic bullet whereby employees can be trained without actually taking the time necessary for training.

Conventional training companies are not doing so well. It's difficult to get complete and reliable revenue numbers from large training companies because they are almost all private corporations. That said, the evidence strongly suggests that the larger players, especially those whose traditional focus has been on instructor-led training, are either barely growing or actually

shrinking. Global Knowledge, Inc., which had revenues of $312 million (US) in 2000,[5] had estimated revenues of $350 million in 2018,[6] which equates to an average annual growth rate of 0.006% (6/10 of 1 percent) for each of the last 19 years. Learning Tree International, which had revenues of $127 million (US) in 2010,[7] had estimated revenues of $64 million in 2018,[8] meaning that they have shrunk by 50% in this decade. New Horizons International, which had $26 million (US) in revenue in 2009,[9] had estimated revenues of $35 million in 2018,[10] which indicates that they have just about managed to keep up with the US economy. The biggest winner we found was SkillSoft, which had estimated revenues of $315 million (US) in 2010,[11] and grew to around $600 million in 2018.[12] Of course, their average annual growth of 7.4% for the last 10 years is explained not only by their position as a traditionally digital supplier, but by their acquisitions of Element K,[13] MindLeaders,[14] SumTotal Systems,[15] and Vodeclic SAS[16] during this period. It is unclear how much of their growth was actually organic.

The point is: conventional training companies are not doing well at all. This is explained in large part by the next item.

There is a lot of free training out there. Entities such as *edX* and *Khan Academy* have had little effect in disrupting the traditional higher education market by offering free university-style courses, apparently because the degree is as important as the actual knowledge. However, entities such as *Udemy* and *Lynda.com* have had a profound effect in disrupting the corporate training market by offering free and almost free training. On the face of it, why would an enterprise pay over $3,000 for a week of training when it appears that they can get the same thing for $149, or $19.99 per student per month (as Lynda.com offers)? As it turns out, there are a lot of reasons, which we will explore later. But more important is this question: how can they provide training at such a low cost? The answer is:

THE CONTRIBUTOR MODEL

The *contributor model* has disrupted the corporate training market. Understanding this model, and its effects, is important.

In the contributor model, independent course developers create courses for companies who then market the courses online. The developers get paid a royalty stream if anyone uses their course. For a number of reasons, the vast majority of contributors are paid little to nothing. In any case, the up-front costs to the enterprises who offer the training is close to zero, which allows them to achieve a critical mass of course offerings for next to nothing.

While there are many enterprises using this model, the two giants are Lynda.com, which originated and/or popularized the model, and Udemy, which has surpassed Lynda.com by an order of magnitude in terms of the volume of courses offered. To better understand how the contributor model works, let's examine their implementations.

- Udemy brags of having 100,000 courses[17] and 42,000 instructors.[18]
- Lynda.com brags of having 7,961 courses.[19] We have been unable to find any published number of developers/instructors, but it is clearly in the thousands.

- Providers such as Udemy and Lynda.com get course developers to provide content for free (or, in certain cases, with a small pre-payment against their revenue stream) and pay some part of revenues to providers.
- Payments to providers are based on the number of customers who view the course.
- **Price points -- fees charged to customers -- are extremely low.**
  - Maximum price for a Udemy course is $199.
  - Lynda.com's pricing model is that users pay $19.99 per month if they sign up for a year, or $29.99 per month on a month by month basis. If a student signs up for the purpose of taking a specific course, completes it within a month, and unsubscribes, revenue for the course would be, at most, $29.99.
- Udemy:
  - If the lead for a sale comes through a paid Udemy affiliate marketing effort, the instructor gets 25% of the resulting gross revenue.[20]
  - If the lead comes through Udemy without any affiliate involvement, the instructor gets 50%.[21]
  - If the lead comes directly from the instructor's own marketing effort -- such as from a coupon they generate, a link from their own web site -- the instructor keeps 97%.[22]
  - Udemy brags on their web site that some instructors earn big money,[23] but those cases are extremely rare: five developers of their 42,000 have approached a million in revenue, and they did so by developing scores of courses. The plain fact is that instructors generally get $5 per course per customer.[24] So if you do incredibly well and sell to 1,000 customers over the course of a year, you earn: $5,000.
- Lynda.com:
  - Lynda.com keeps their royalty deals extremely confidential. The fact that they do not accept contributions from just anybody lessens the in-house competition, but the fantastically low prices more than make up for that by suppressing earnings.
  - Lynda.com markets to course developers by encouraging them to submit samples, setting rigorous standards for submissions, and then informing candidates that "we can't [be bothered to even] respond to every application."[25]
  - No one claims that Lynda.com instructors make much money. The highest claim I could find -- and there is no evidence to support the claim -- is that some instructors "have reportedly made $30,000 in six months."[26]
    - That claim refers to a 2013 article in Forbes.com that stated that in one case, an instructor earned $30,000 in the first six months after a product was released, but again, this amounts to being urban legend. There is nothing to support the claim.[27]
    - Even if we were to take the claim at face value, that means that the instructor is barely earning a living wage.

The consequence of the contributor model is that almost no one makes a living at this. One guy (literally, ONE GUY) made a million dollars doing this for Udemy, but the vast majority of contributors end up earning little or nothing, and even the lucky ones earn maybe $10 or $15 an hour for their course development time.[28]

THE SOCIAL COST OF THE CONTRIBUTOR MODEL

The impact of the contributor model on conventional training companies is obvious: conventional training companies are in trouble, and the future of some is in doubt. If this eventuality were

simply an evolutionary industrial development, like assembly lines and the use of robots to perform selective tasks, it would be, however unfortunate, a mere footnote in economic and industrial history. But the fact is that the cost of the contributor model is high, both to society and to those who are trained.

(Note: this discussion of the social cost of the contributor model is important, but not central to the argument that the contributor model is costly to client enterprises. Therefore, while we cannot in good conscience omit this discussion, we will make it brief.)

The contributor model drives down wages. As we illustrated earlier,[29] those who develop courses under the contributor model earn a fraction of what conventional instructional designers earn. This is unambiguously a bad thing, as lower wages will inevitably drive talent away from the profession and reduce quality of training overall.

The contributor model induces the amateurization of instruction. The web is full of stories that encourage amateurs to develop courses for enterprises such as Udemy as a way to earn extra income or passive income.[30] This means that the professionals who are trying to improve their own skills by using courses developed by such amateurs are significantly less likely to get sound, complete training.

The contributor model contributes to the unhealthy trend in which businesses and consumers reduce their costs by reducing wages, and damn the consequences. We have seen trends like these for several decades:

- We all shop at places like Walmart and Amazon.com without a second thought because that's where the bargains are. We seem unconcerned that the policies of such enterprises of low pay (in general at Walmart, and specifically in Amazon warehouses) and part-time employment means not only long, grinding hours and often dismal working conditions, but that state and federal governments have to subsidize employees with SNAP payments, Medicaid and other social programs.[31]
- There is little public discourse about government privatization, and while the jury is still out on whether or not privatization of government functions has actually saved money, there is no question that it has driven down wages (which is the whole point of privatization) and shifted spectacular amounts of capital from the middle class to the upper class.
- The shift to unpaid or minimally paid journalists has led to the absolute devastation of journalism. At least one fifth of local newspapers have closed in the past 14 years,[32] and the survivors have in large part been gobbled up by syndicates that have all but eliminated full time, local journalists. Meanwhile, providers such as the *Huff Post* built their business with the journalistic version of the contributor model. As the *Los Angeles Times* observed:

    > To grasp its business model, though, you need to picture a galley rowed by slaves and commanded by pirates. ... The fact is that AOL and the Huffington Post simply recapitulate in the new media many of the worst abuses of the old economy’s industrial capitalism — the sweatshop, the speedup and piecework; huge profits for the owners; desperation, drudgery and exploitation for the workers. No child labor, yet, but if there were more page views in it...[33]

- While the cost of higher education has gone through the roof in recent decades, an ever greater number of university courses are actually taught by poorly paid adjunct instructors,[34] and there is little question that the quality of instruction has suffered.[35]

These are all troubling developments.

THE QUALITY OF CONTRIBUTOR-DRIVEN TRAINING

The responsible executive, for good or ill, might be willing to overlook, debate or dismiss the social cost of training that is a product of the contributor model as long as the training is reliable, of high quality, and cost effective. Is it?

There are many things to be considered. There is the question of the relative efficacy of instructor-led training vs. remote-live training vs. self-paced training. There is the question of the relative efficacy of a typical unscripted but experienced instructor vs. less experienced and possibly amateur instructors. There are questions about the value of instructor-student interactions, sound application of pedagogical principles, holding the students' interest, adequate presentation and production values, and the quality of the training itself. It all comes down to this: is training from bargain providers comparable to that from conventional providers? And is it as cost-effective? Let's see.

You can have it cheap, you can have it fast, and you can have it good. Pick two. That old saw, which is generally true in any number of product development environments, is certainly applicable to the development of training courses. While it is certainly possible to find good courses that are cheap, a business model (such as the contributor model) that relies on cheap, fast and good is clearly not sustainable. The variable that is most likely to be abandoned is quality, since, as we've discussed, lowered wages will drive out the best talent.

Experience supports this conclusion. Even a cursory look at courses from Udemy and Lynda.com demonstrates to the objective observer that the quality of instruction is spectacularly uneven. Some of it is just awful.

When the primary development constraint is money, and the primary marketing requirement is a price point of zero (or as close to zero as possible), the results cannot be consistently excellent.

There is little or no help for the student. The vast predominance of evidence suggests that those who need training in complex technical topics are far better served by instruction that involves instructors than instruction that does not[36] because students need somewhere to turn when they run into problems. This issue can be effectively addressed when self-paced training products (like those from HOTT[37]) include an instructor who is assigned to monitor progress and answer questions throughout the training process. However, neither Udemy nor Lynda.com offer such support at any cost. We are unaware of any bargain provider that does. The lack of such support translates to vast quantities of wasted time for the unfortunate IT professional who uses such training, and to similar quantities of wasted money for their employers. The training ends up being little better, and in some cases worse, than simply selecting a good textbook.

We have heard it argued that in the information age, the solution to such support gaps is to be found in websites such as Stack Overflow, Quora, DreamInCode, and CodeAcademy, where fellow professionals may be kind enough to answer questions from strangers. It is certainly true that such resources are useful, but they are also unreliable, risky, and time-consuming. They do not come close to replacing a dedicated instructor.

Fundamental training principles may be ignored.

- Courses may or may not have been developed either by authentic subject matter experts or by educators. Caveat emptor.
- Courses may or may not have been reviewed. Polices vary with vendors.
- All too often, instructors are difficult or impossible to understand because of thick accents and poor English language skills.
- The dreaded *simulated development environment* may be in play. For technical training, lab exercises are *the* most important part of the training experience. Course developers have a choice of providing software and maintaining careful instructions for software installations or using a simulated development environment. In the latter case, the student learns how to operate in a faux environment that may or may not map to current software releases. It is unambiguously better for the student to work in a real development environment. (This issue applies not only to products from bargain providers but to products from some conventional providers. Regardless of the provider, the student ought to work in a real development environment.)

And that's not all.

- Courses are unlikely to be comprehensive. We'll look at a case study that addresses this topic shortly. For now, let it suffice to say that the vast majority of courses that originate with the contributor model are not comparable in breadth to those developed by conventional providers.
- Study time typically doubles or triples. Again, we'll look at a case study that supports this observation.
- As the cost goes down, and the amount of time needed to complete study goes up, the amount of time lost to training increases, as does the opportunity cost, as the time lost is never truly recovered.
- The cost of poor training is high. As we have discussed before,[38] sub-par training can and regularly does have a calamitous effect on products developed by those who are poorly trained.

Although some of these concerns are addressed by some bargain providers, it is impossible to conclude anything other than that quality suffers under the contributor model (or any model where primary goal is to deliver loads of products at minimal production cost for a minimal price).

THE BUSINESS IMPACT OF THE CONTRIBUTOR MODEL

Speaking as a business executive, I can honestly say that my instinctive reaction to any news of an opportunity to slash any indirect cost is, "Woo-hoo!" That reaction is, of course, quickly followed by suspicion. If it sounds too good to be true...

I return to the fundamental question: is training from bargain providers comparable to that from conventional providers? And is it as cost-effective?

Ultimately: no and no. The quality of the training is a huge issue. Even if we can find individual instances of free or cheap training that are comparable to conventional training in terms of breadth and quality -- and I doubt we can -- the notion that these small, unsupported, home-made courses can virtually replace professionally prepared training fails to pass the sniff test. As George Kuh so elegantly pointed out in the *Harvard Business Review*:

> We've known for many decades that there are no short cuts to cultivating the habits of the mind and heart that, over time, enable people to deepen their learning, develop resilience, transfer information into action, and creatively juggle and evaluate competing ideas and approaches. These are the kinds of proficiencies and dispositions needed to discover alternative responses to challenges presented by the changing nature of today's jobs or for work not yet invented. Workplaces, societal institutions, and the world order are only going to get more complicated and challenging to navigate and manage, increasing the need for people with accumulated wisdom, interpersonal and practical competence, and more than a splash of critical thinking, analytical reasoning, and altruism.[39]

That is, there is no free lunch.

To understand this, we need to look at the actual costs of training, not just the obvious ones.

Consider the cost of employing an IT professional. According to the US Bureau of Labor Statistics, a programmer who is well below the industry average for programmers (one who is 25% of the way from the lowest paid to the highest paid programmers in the country) earns $64,410 a year.[40] If we add another 33% to cover payroll taxes and benefits, we can conservatively say that the actual cost of a programmer's time is about $1,650 per week. We'll consider this person a "typical" programmer. If anything, we're clearly at the low end.

So if we take a programmer off production work for a week, the cost to the employer is the cost of the training plus $1,650.

What is the real cost of bargain training? Consider this case study. We have a mid-level programmer (the one who is at the 25th percentile of earnings in her field, meaning she makes less than 75% of programmers overall). She has been employed by a smallish firm for the last six years, working mostly with Visual Basic, SQL, and some C++. She is told that she needs to learn Java Programming. Using Google, she quickly finds what appears to be a comprehensive 5-day, 35 hour course from HOTT (yes, we'll use our own offering as an example of a "typical" offering from a conventional training provider, although we, of course, think our courses are much more than the typical courses). She sees that she can take the course in a traditional face-to-face classroom environment, or remote-live, or on-demand (with an assigned mentor instructor to answer questions), for $2,795. Since a week of her time is worth $1,650, the total cost for the training would be $4,445.

However, the boss suggests that for budgetary reasons, she ought to look at courses from Udemy and Lynda.com.

She starts at Udemy, and her search for courses on Java Programming returns 10,000 results. Actually, it's more than that, but apparently their counter maxes out at 10,000. She wades though descriptions for a few dozen courses and her frustration grows. How can anyone make sense of this morass?

She discovers that one of the great nightmares of cheap training is that it tends to come in tiny pieces, and it is often quite difficult for a student who needs training to determine which courses they should take. The problem is that asking the person who needs the training to choose which courses they need is a bit like asking a five year old what they need to learn to prepare for life as a mechanical engineer. Even if they know what a mechanical engineer is, they have no idea what a mechanical engineer needs to know.

But our programmer is persistent and dedicated and eventually finds a course on Java Programming which, according to the course description, is comparable to the one from HOTT. The good news (for her, if not for the contributor who wrote the course) is: the course, normally priced at $149.99, is on sale for just $11.39. How can she go wrong? The bad news is: The course consists of 396 separate lectures totaling 79 hours, 52 minutes and 39 seconds,[41] before she even starts thinking about performing lab exercises. So, to be fair, let's say that, including lab exercises, this course will take three weeks to complete. That means that even if the course is free, the cost to her employer is $4,950. So, before we even start factoring in the cost of lost production time and opportunity cost, and assuming she does not get hopelessly stuck at some point due to the lack of an instructor, her employer is over $500 in the red compared to the one week course available from HOTT.

How about Lynda.com? Our subject's search for courses on *Java Programming* at Lynda.com returns 3,169 results, and she again starts to feel frustrated. She turns to the course descriptions and realizes that Lynda.com offers no detailed information on these courses, instead opting to show 30- or 45-second introductions and high level lists of topics that leave most topics unmentioned. How is she to compare courses when she has no detailed course description?

Before giving up, she stumbles on a link that says *Learning Paths*. She clicks it, and finds a path titled *Become a Java Programmer*.[42] She discovers that according to Lynda.com, the way to become a Java Programmer is to take 15 courses from 10 instructors. The good news for her is that these courses consist of a mere 32 hours of video. The bad news is that she doesn't really believe that she is going to get what she needs. The organization seems haphazard (she wonders if the 10 instructors ever have spoken to each other) and there seems to be some duplication, as well as some material in which she is uninterested (an entire course called *Nail Your Interview*; probably not what her current employer wants to pay for). She has no idea how much time will be required for lab exercises, and has to find a back way into a separate course description for each course to even determine if there are lab exercises. At least there is an option to get a free month of training, so she can in theory take the course for no or little cost, but then, we've established that the larger cost for the employer is the employee's time, not the

cost of training. It again seems likely that she will have to invest about three weeks into completing the coursework.

Knowing that she will be under pressure to get back on the job, our programmer decides that she -- and her employer -- would be best served by taking the "more expensive" course. She is, in fact, correct.

CONCLUSIONS

The contributor model has made it possible for enterprises to offer training at incredibly low prices. The quality is questionable, and the model has staggering and unattractive social costs, but the phenomenon and effects on the marketplace are real.

It's nice that an individual can sign up and take courses -- including some pretty good ones -- for next to nothing. For folks such as the unemployed who are cash-strapped but have time on their hands, these courses may be their only option, even if they would be better served by a conventional bootcamp or other training organization. The bargain courses offer a real opportunity for learning, if folks are fortunate enough to find the right courses.

As for the IT professional, or those dedicated to making a career change as time-effectively as possible, the cost of free training is inevitably higher than the cost of conventional training at conventional prices. Rolling the dice with one's career development is unwise. There is no money-back-guarantee for days or weeks of wasted effort. Ultimately, there are no shortcuts.

The cost of free training is extraordinarily high.

Colin Grant
Chief Education Officer
Hands On Technical Training

Colin Grant, the CEdO (Chief Education Officer) at Hands On Technical Training, has worked in the field of technical education for almost 40 years as a technical trainer, programmer, course developer, media developer, manager, executive, entrepreneur, editor, and author. He welcomes your comments, criticism and input. Please contact him at Colin.Grant@traininghott.com.

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[28] This table supports our assertion.

Course Length in hours	Course Fee*	Developers cut	Number of students	Gross revenue	To developer	To developer per hour of content	Hourly rate paid for developer's time**
10	$200	50%	25	$5,000	$2,500	$250.00	$3.52
10	$200	50%	50	$10,000	$5,000	$500.00	$7.04
10	$200	50%	75	$15,000	$7,500	$750.00	$10.56
10	$200	50%	100	$20,000	$10,000	$1,000.00	$14.08
10	$200	50%	150	$30,000	$15,000	$1,500.00	$21.13
10	$200	50%	200	$40,000	$20,000	$2,000.00	$28.17
10	$200	50%	500	$100,000	$50,000	$5,000.00	$70.42
10	$200	50%	1000	$200,000	$100,000	$10,000.00	$140.85

* Udemy suggests, "Typically, online courses are priced at $10 to $30 for every hour of content." The highest priced course we found was $199.99.

** According to the AST, it takes an average of 71 hours to develop one hour of e-learning with interactions of "limited complexity".

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