

# Can higher education transform itself for survival?

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## **Abstract**

The risk of disruption of the higher education ecosystem has been discussed over the past years by a number of authors, and most of them agree that it is virtually inevitable. Yet, recently there has been some different views, of two kinds – one claiming that innovative disruption, in general, is far less common than previously believed, the other suggesting a way to avoid the unpleasant consequences of innovative disruption. To achieve this, organizations must be led by (organizationally) ambidextrous leaders, capable of demonstrating a highly developed intelligence, as F. Scott Fitzgerald said: “The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function.”

There are some tests that can be used to verify whether such a notion is plausible for an organization and whether a new idea stands a fair chance of being successful in achieving the desired outcome. This paper starts with a review of the risks of disruption in higher education and then continues to answer some questions regarding innovative disruption in higher education. The framework suggesting ambidextrous leadership of organizations presented next, followed by its application to the special case of higher education – including the presentation of possible answers to the questions meant to determine the potential for success. This kind of analysis is mandatory for any organization that attempts to head off possibly critical disruption, and find within itself the powers to follow up on this quest. While not easy, it seems to be highly important for higher education institutions striving for sustainability.

## **Keywords**

disruptive innovation; higher education; ambidextrous leadership; online learning; transformation

## 1. The risk of disruption of higher education

Higher education has been going through a prolonged crisis over quite a while. This can be easily seen by observing both ominous signs and even "good" signs. "Good" signs are increasing demands, expanded awareness of advanced degrees (mainly since many more people have a bachelor's degree) and an increased number of faculty. In the United Kingdom, the last available data shows an increase of 2.1% in the number of academic positions from 2014 to 2015 (UK (2016)). In the United States, recent statistics show an increase of 11.2% in the number of faculty positions from 2007 to 2011, although there is a decrease in the growth rate to 1.5%, compared with an average of 2.8% in the preceding four years (Inside Higher Education (2016)). Still, a fairly impressive growth rate overall in times of economic difficulties. The ominous signs include budget cuts, changed expectations from many stakeholders and an uncertain economic future. This last issue is not exclusive to higher education, but rather to society at large, but it clearly has an effect on higher education, too.

Solutions to these crises take many forms – increased efficiencies, tightened management, fewer tenure positions (and longer tracks to achieve it), and more. While institutions struggle, each in its own unique way, to head off the impending difficulties as best they can, it seems that there is little shift in the main efforts, and that only minor "course corrections" take place across the academic landscape without any significant redirection or paradigm shift that, in this authors opinion, are critical for the survival of higher education

In previous works, it was pointed out that the rapid growth of many higher education systems in the world, due mainly to the increased demand – itself stemming from the realization by many that higher education is the indispensable key to entry into the work force - creates forces that are threatening to reshape it into an unrecognizable form. (See Raanan [2007], Richardson (2010), Raanan (2011), Raanan (2012), Nolan (2013).) This increase can be manifested by observing UNESCO's statistics (UNESCO (2015)) that show an average increase of 155% in tertiary graduates world-wide in the period from 1999 to 2012<sup>1</sup>. Developing countries exhibit a much rapid growth, in general – in some cases over 200% - than developed countries, with growth rates of 40% - 90%. Higher Education's budgets did not grow nearly as much, as is very well known, nor are they expected to do so. On the contrary, higher education everywhere is pressured to do more with less resources.

This expansion, while socially desirable, has reshaped higher education. Whereas during most of its history, perhaps up to the last quarter of the twentieth century, higher education was effectively limited to the elite, to people who, for the most part, studied in order to expand their horizons and become researchers and scholars, or in order to become thinking men and women, students with these intentions and aims are just a small minority among the masses that flood the higher education system. The vast majority of students (definitely in the Bachelor's and the Master's programs) view higher education as a step towards gainful employment: The Bachelor's degree being mandatory and the Master's a (fast declining) competitive advantage. This process exposes higher education to new types of students. Not only are they in the institution for acquiring knowledge and skills, but their view is quite utilitarian – they assess higher education's offerings by their contributions and relevance to their future profession or job, and to their ability to get it. The generation of senior faculty members currently occupying leadership positions in higher education finds it difficult to adjust to these changing moods – certainly in a relatively short period. Higher education has responded to these shifting demands, but only incrementally – no major changes in instruction, admission procedures, requirements and structure of the system have taken place.

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<sup>1</sup> For countries providing data for both years. In some countries, data is sketchy but the trend of rapid growth is very clear.

Once higher education was no longer revered as an above reproach and highly important area that provided untold intellectual assets to society, including researchers, scholars, leaders - the public respect diminished, critical reviews became more frequent, and – combined with other pressures on the public purse – this led to budget cuts and requirements for austerity.

This utilitarian approach to higher education brought about another change: it is now being challenged to prove its worth and its contribution to the general welfare of society, often in harsh monetary terms. Many of the students do a cost-benefit analysis and treat attending higher education as an investment that has to generate financial profit. This attitude, and the spiraling costs of higher education, threatens to leave many young people out of the higher education system. True, many institutions, as well as governments, try making higher education accessible by offering loans and other forms of financial assistance yet it is still considered out of reach by many that would like to increase their employability – if it is practical to do so.

This new slant on higher education makes it very susceptible to disruption. Disruption, as shown in Christensen (1997) happens when two conditions are met:

- There is a significant market segment that is not served by the current providers
- A technology that is capable of serving that segment – for a combination of price/performance that is acceptable to that segment (a combination the established providers do not offer).

The implications for higher education were presented in Raanan (2015), where it was shown that the risk of disruption in higher education is real – and high. The question now becomes: can higher education survive the disruption? Can it, in essence, find a new model of operations that will enable it to continue with its mission while at the same time providing solutions to the market segments that threaten the existing model, so that these segments are offered solutions that satisfy their demand at a price/performance combination they find attractive?

## **2. Can disrupting innovations in higher education be avoided?**

Disrupting innovations, by their very nature, take the established providers by surprise. They start as a minor competitor (often not even regarded as such by the veterans of the industry) and are allowed to grow, unencumbered, until they become a considerable market force – by which time it is often too late for the veterans to do anything about them. The veterans frequently find themselves with drastically reduced market share, and many times they cease to exist at all.

However, since the concept of disrupting innovations is, by now, widely known – as well as many case studies detailing the developments in many markets that had been disrupted by such innovations, the question of avoiding the impact of disrupting innovations seems to be an issue of risk management. The basic tenet of risk management is "Once a risk is discovered – it is no longer a risk but a management issue". One of the most difficult parts of handling risk events is the fact that they were not foreseen. Thus, no countermeasures were prepared and the event turned to damage. Knowing this, it is quite natural to expect managements in organizations to be on the lookout for potential disrupting innovations – and prepare countermeasures against their turning into a serious threat, or at least mitigating actions. In risk management parlance, disrupting innovations are strategic risks, as they can possibly destroy the organization.

As it turns out, that is easier said than done. First, risk management is usually not taken as a major organizational activity but rather as a tedious task required by regulators as part of proper corporate governance. Second, strategic risk management is no ordinary risk

management and cannot be done by deploying reporting software, analyzing the data and devising remedies. Strategic risk management requires top management attention – a rather rare commodity, usually taken up by current and pressing issues that may impact the organization in the very near future and not further in the future. In addition, it deals with uncertainties and with the future and requires vision and the ability to "think outside the box" – another not very common feature in well-established organizations that normally find comfort in routines and procedures. In the corporate world, however, there seems to be evidence of top management paying more attention, and allocating more resources, to strategic risk management, as reported by Deloitte (2013). This increased awareness is explained, at least in part, by the understanding that "Companies that fall behind on the innovation curve may quickly fall prey to innovation's evil twin – disruption" (Deloitte, 2013). This author has not been able to find similar awareness in higher education. When strategic risk management was mentioned, it usually referred "standard" strategic risk. For example, the following quote defines strategic risk: "*Strategic risks include: risks affecting the ability of universities to achieve their goals and objectives, key parties involved, socio-political and economic environment (local economic developments, industrialization area, modernization, regionalization) and national reputation (quality assurance in higher education) and international reputation (international evaluation cooperation with other universities abroad)*" (Toma et al, 2014). Similar definitions appear every time strategic risks are addressed in the context of higher education. Not a single word was found about the most basic strategic question: Can the institution survive in its current form and structure over the next few years? In parenthesis it is quite ironic, though not surprising, that during an era that lauds sustainability as an important goal of companies, organizations (and, certainly the environment), no thought is given, in academia, to its own sustainability. This, of course, makes it extremely ripe for disruption, of the kind that annihilates the preceding order.

As disruptive innovation has been around for almost two decades (since Christensen, 1997), it has attracted attention from academics and practitioners alike. Christensen himself discusses disruption of educational systems on numerous occasions (Christensen (2012), Christensen (2013), Christensen (2014), and many more). Actually, he started even earlier (Christensen, 2008) and discussed the student-centric education as the new way in education. Many other authors have taken up some parts of the disruption discourse, with a lot being written about MOOCs (Massively Online Open Courses). See, for example, Yuan and Powell (2013). Most of the discourse centers around particular solutions and their impact on higher education. These works deal with what may be termed micro-solutions or micro influences. What seems to be missing is a macro perspective, or a bird's-eye view of the problem – can higher education survive the various disruptive forces attacking it with increased might?

A general answer to the question of how to avoid collapse when faced with disruptive innovations has been recently proposed by O'Reilly and Tushman (2016), in their book "Lead and Disrupt: How to Solve the Innovator's Dilemma". In it, they prescribe a solution for dealing with the innovator's dilemma, and apply it to a number of organizations. The organizations, both from manufacturing and from services, are all in the private sector. It is challenging to try and apply their proposed remedy to higher education – but this is what this work will attempt to do.

### **3. General framework for dealing with disruptions**

Christensen (1977) predicts that in most cases, the new, disrupting organizations will lead to the demise of the existing, established, organizations. Regarding universities, he is

cautiously optimistic (Christensen, 2012) although he also states that if universities manage to avoid disruption it will be contrary to decades of research and large quantities of data.

Regarding innovative disruptions, in general, there are authors that claim that it has been over-used as the cause for business failures (see, for example, King and Baatartogtoch (2015)). Another approach, proposed by O'Reilly and Tushman (2016) contends as a basic tenet of is that it is possible, in principle, for established organizations to deal with disruptions without suffering the fate prescribed for them by Christensen (1997). They propose, in essence, to create an entity, within the established organization, that will be tasked to create the next innovative disruption to the established organization from within the overall framework of the existing organization, thus enabling it to adopt the disruptive innovation in time to avoid being ruined by it. They contend that organizations that develop, in a manner of speaking, their own disruptions can adapt and thrive in the new environment and in essence "re-invent themselves". They offer a method for achieving the desired results, which consists of setting up an arms-length division (or a separate organization, but one with close links to the parent organization) and let that new entity develop and deploy the new technology, or new business. Roles can later be reversed, if that serves the overall mission of the organization. They use the term ambidexterity for such a two-pronged approach.

One of the key benefits of setting up a mostly, but not completely, separate organization is that the new organization will have access to assets, services and capabilities – developed and maintained by the established organization – that a completely new entrant into the market will have to develop from scratch, at a considerable cost. This activity will also consume management attention and will, naturally, take time – which is a critical element in all new attacks on an established competitor.

Another critical factor needed in order for the new scheme to succeed is the separation of operations of the new organization from the established one, in almost all aspects: recruitment, remuneration of talent, work methods, procedures and so on. Many times, this separation goes as far as setting the new organization in a separate location, in order to reduce friction, as well as jealousy and resentment from the people of the established organization. This spirit of non-cooperation may harm the new fledgling during its most vulnerable period. Additionally, as in all high-stakes undertakings, senior management support is vital. There are frequently excellent reasons for the new organizations to be viewed as distractions or threats by the established organization – indeed, as a disruption in and of itself. The investments needed for the new are usually far less certain than the returns that can be achieved if they were made in the established organization.

Without constant senior management support, the new organization may be deprived of the resources that are necessary for its progress. One of senior management's most important tasks is to "sell" the idea of the separation between the established and the new organizations to the board, the managers and the workers of the established organization so that the new organization can legitimately set off on its own independent course without being hindered by its organizational legacy.

When thinking about setting up a new, novel, innovative organization, those advocating its creation must convince the established organization's management that they have answers – or at least some serious leads for finding them – to the following critical questions (taken from IBM's procedures):

- How will we compete? What is the basis of our competitive advantage?
- What customer segments do we choose to serve—and what will we not serve?
- What is our value proposition? Why should customers choose our product or service?
- How will we make money? Where does our profit come from?
- What will we do internally? And what activities can we outsource?
- How will we defend our profitability over time—is our advantage sustainable?

Given that undertaking such a difficult endeavor is something that cannot be done with an off-the-cuff attitude, it is important to find out when such an action is warranted. O'Reilly and Tushman (2016) propose the following four tests for deciding whether strategic renewal is appropriate.

- i. Is performance of your organization dominated by mature strategies where growth opportunities are limited?
- ii. Is there a product, service, or process opportunity that could shift your organization's strategy?
- iii. Is the opportunity (or threat) outside your core markets?
- iv. Is the opportunity a threat to the firm's core capabilities and associated identity?

Their conclusion is that the time to explore and to renew the organization is when your existing strategy is mature and there are technological possibilities that could reshape your industry.

In the next section, the projection of these principles and questions will be discussed with the higher education environment as the backdrop.

#### **4. Leading Away from Disruption in Higher Education**

It is instructive to ask those four questions, listed above, about higher education.

- i. Is performance of your organization dominated by mature strategies where growth opportunities are limited?
- ii. For most institutions of higher education, the answer is a resounding Yes. Most institutions, when facing declining income and increase costs resort to "doing more of the same". They offer new programs, revamp old programs, recruit mor faculty and try to attract more students – so that tuition, or government funds – will rise.
- iii. Is there a product, service, or process opportunity that could shift your organization's strategy?
- iv. Here, too, the answer is a resounding Yes. As mentioned above (and in many other places), various forms of distance learning and in particular online learning, are gaining traction and may soon offer better solutions, at least to some sectors of potential students.
- v. Is the opportunity (or threat) outside your core markets?
- vi. The answer to this question is not so unequivocal. Online learning can (and does) serve both the core markets and sectors outside the core markets, like diploma studies, vocational training, continuing education and more. (It should be noted that it is imperative for higher education to extend the definition of its core markets to include some of those sectors, as elaborated in Raanan (2007).)
- vii. Is the opportunity a threat to the firm's core capabilities and associated identity?

Unquestionably. Higher education institutions have been flaunting their long history, their traditions going back centuries and their old, ivy-covered buildings as part of their claim for superiority over all other institutions of advanced learning. Online learning, and other non-traditional methods, pose a huge threat to this identity. Online learning requires no history, no tradition and definitely no ivy-covered buildings in order to provide service. It also does not need very large administrations, acres of parking facilities and large libraries, nor cavernous lecture halls. It relies on modern, fast telecommunications and the new mobile-centered learners.

When summarizing these answers, there seems to be little doubt that higher education operates in a mature, sometimes saturated, environment. Old, established institutions find themselves (in aggregate) serving many more students – at all levels: bachelor's, masters and PhD – than ever before. This calls for more faculty members, although not necessarily at all

level proportionately. In addition, new institutions are established – some similar to the existing institutions, some quite different. For profit institutions grow in number, attendance and popularity. Public universities are struggling with rising costs and decreased budgets, and are looking at every possible method for curtailing and managing costs.

The other condition reached by O'Reilly and Tushman (2016) requires that there be technological possibilities with the potential to reshape higher education. Now, Deming et al (Deming, 2015) contend that online learning can "bend the higher education cost curve", and some leading institutions have begun to adopt various methods of online teaching methods, for academic programs – some even for full online master's degrees (Galil (2015)).

Hence, disruption is clearly coming to higher education. The only question that remains is whether higher education can find ambidextrous leaders, capable of leading their institutions on its current, continuous improvement path – while at the same time breeding an arms-length institution capable of exploiting disrupting innovations that will gradually replace the old system. Leaders of this caliber are rare and very hard to find, even in sectors that do not boast of a millennium of history and experience. Naturally, having such a long and glorious history has the (debilitating) effect of instructing owe into anyone who rises to a leadership position in these institutions. Fear of damaging the celebrated institution exerts a very strong paralyzing force and inhibits attempts to break free of existing dogmas. But it is precisely this ability, of "thinking outside the box" that is required for innovation. Moreover, the selection methods of leaders in higher education, in most cases based on scholarly achievements and not on proven managerial prowess also diminish the probability of finding ambidextrous leaders in higher education.

## **5. Fundamental issues for avoiding disruption in higher education**

In an attempt to find out whether ambidextrous leadership can steer higher education in a new direction, allowing it to transform its teaching operations into a more competitive offering, providing solutions to a wide range of populations with different needs, it is instructive to try and answer the questions, also introduced above, about an online learning offering by higher education.

- How will we compete? What is the basis of our competitive advantage?

Competition will be based on the reputation of the institution and on the quality of the people providing the educational services. Using higher education's "star" performers may provide a competitive edge. Another competitive edge – over newcomers into the online learning area, those with little or no existing base – will be the breadth of scope that the established institutions can offer. This will appeal to a wider section of the relevant population and will also enable combinations that may not be feasible within the newcomers' offerings.

- What customer segments do we choose to serve—and what will we not serve?

While this choice will be up to the individual institution to make, it seems that the segments chosen will include:

- Students studying for academic degrees
- People that are in the Post Formal Education (PFE) stage, looking for continuing education
- People that are interested in diplomas, not full academic degrees

- What is our value proposition? Why should customers choose our product or service?

Value proposition will have to be based on:

- Quality of degree awarded (to degree candidates); market value of diplomas (for diploma students). These will initially be greatly influenced by the reputation of the institution.
- Quality of content, measured by how updated it is, how relevant to the field of study, how interesting to the student, and more
- Variety of content
- Flexibility of learning arrangements
- Accessibility to professors \ instructors \ tutors

- How will we make money? Where does our profit come from?

Profit will come from attracting a sizeable community of learners, as well as successful reuse of materials

- What will we do internally? And what activities can we outsource?

That depends on the circumstances of the individual institution and its available capabilities

- How will we defend our profitability over time—is our advantage sustainable?

Profitability will depend on the performance of the individual institution and its offerings. Sustaining the competitive advantage will, to a large extent, depend on an exogenous force – the regulators. As long as the market values academic degrees and requires them for the better, more interesting and more lucrative jobs, the accreditation of the institutions will give them an advantage over non-accredited newcomers, even those with better technology. This advantage, however, will be meaningless in the competition with other accredited institutions. There, the issues of quality of the education received and cost will be paramount in the eyes of the prospective students, with issues of convenience and service quality serving a "tie-breakers" in cases where the other issues are deemed to be equal when comparing competitors.

It seems, from the analysis above, that online learning – if adopted in time by an institution of higher education – may provide a way of avoiding its demise. Demise of an institution of higher education may take several forms, including being shut down completely, losing its independence, being forced into a merger with another institution. Institutions that will not transform themselves and meet the new realities of the 21<sup>st</sup> century may find themselves, sooner or later, facing one of the unpleasant options mentioned above.

## **6. Summary**

Higher education is on the brink of disruption. Whether it exhibits all the requisite "preconditions" for disruption or not is debatable, but the crisis is upon us. However, some recent work on innovative disruptions suggest that it may be avoided – if higher education is led by ambidextrous leaders, capable of sustaining two streams of action within their institutions – the "standard" one and the innovative one. Due to the long history of these institutions, as well as their proclivity to choose leaders that are known for their academic accomplishments, not necessarily their management competencies or far-reaching vision, the outlook is not very promising. It is high time, therefore, for the current leadership to realize these facts and act, quickly, to remedy the situation – before it is too late.



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