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title

# The future of higher education in a disruptive world

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# Executive summary

The Golden Age of universities in the developed world is passing and life is becoming tougher. Rising costs are no longer matched by a willingness of governments and students to pay for them. And yet the traditional operating model of a university cannot produce sufficient productivity gains to cover the gap.

Even before the pandemic, the relentless rise in costs was going to bring matters to a head. The broad support for universities that has been a feature since the 1960s is faltering and real increases in per-student funding are unlikely in many jurisdictions.

In addition, universities are being buffeted by other forces. Technological change and a new world of work are generating calls for new types of post-secondary education. Demographic change will likely mean smaller domestic cohorts of students in most liberal democracies. Climate change is leading to expectations that public bodies will be carbon neutral in their operations. Competition from non-traditional entrants investing in large scale digital delivery threatens a portion of their markets. The Age of the Customer has arrived and students have higher expectations about the experience and what it will lead to.

Traditional universities are approaching a crossroads. They must decide whether to transform themselves into new kinds of entities, optimize their existing operations in a search for further efficiencies and increased capability, do nothing in the hope that if no rescue appears they will have time to decide what to do later, or do nothing in the belief that they are invulnerable.

This report analyzes the current state of higher education in a disruptive world and suggests four building blocks for a way forward, in terms of *strategy*, *capabilities*, *operating model* and *technology*. The result will be a 'connected university' able to keep delivering the extraordinary benefits that higher education can deliver for its communities.



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# Introduction

Content  
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“The quality of *personalized* student learning will be key to institutional success.”

## Content

The Golden Age of universities enjoyed in the developed world since the mid-twentieth century is passing. Good times are giving way to tough times. Success will be harder to come by.

This was already the case in 2019, but 2020 saw the black swan event of the pandemic, with the closure of international borders and the lockdown of domestic economies.

For many universities, the future arrived ahead of schedule, abruptly and without invitation.

Universities have been caught up in the post-COVID-19 trends affecting society but they have also experienced a world of pain uniquely their own, starting in Australia, where the new academic year was about to begin when borders were closed in February 2020. By the end of the year, many OECD members will have seen clearly what international education has really meant to their economy.

Bail-out packages for universities which were initially assumed to be coming, didn't arrive early, on the scale expected, or in some cases at all. Society, it turns out, had higher priorities.

Large numbers of lectures were put online, quickly, by scholars who had previously vowed never to have anything to do with it. Large numbers of adjuncts or sessional teachers were laid off, and faculty members were left with ... the students!

The business and operating models of many universities were exposed as critically reliant on the good times continuing.

Real and painful as all this has been, most of the consequences of the pandemic were at least evident as emerging trends. Little of what follows in this report changes as a result of it; only the timing and urgency. The future has just arrived inconveniently early.

As with all discussions of the future, one makes educated judgments based on trends and the experience of sectors which were exposed earlier to the same drivers of change. In this, universities are lucky. The transformations many industries and organizations have gone through can be examined, and better practice adopted. Much of what follows in this report about the future state of universities is based on and adapted from hard evidence about what has worked elsewhere. Of all the claims and predictions that follow, perhaps the one most-confidently made is that higher education will move from relative uniformity to great diversity.

Different types of providers and forms of provision will proliferate. Physically, we will see a mix of actual campuses, augmented campuses (where mixed reality and the analogue world fuse) and virtual learning environments. Educationally, we will see much more experimentation with content and delivery.

And of all the forces impelling this diversity, the most powerful will be the search to meet the needs of individual students. The quality of *personalized* student learning will be key to institutional success.

This report is part of a wider project on KPMG Connected Enterprise for Higher Education, a framework for university transformation in the interests of stakeholders.



## Content

Much of the hard work of this transformation will be behind the scenes, invisible even. Transformation is not only about the curriculum, learning delivery, student support and research. It is about the back office, the operating model, the technology and, fundamentally, the sum of capabilities that reside in the organization: to be flexible, agile, deliberate and led by insights from the evidence.

No one is guaranteed of success, but those institutions that have high levels of these capabilities will be far better equipped to survive disruption and, in turn, create it. And to be blunt, they will likely be more efficient, cost less to run and have more resources for their core purposes of learning and discovery.

The focus of this report is higher education, and for practical purposes that means universities, which at this point in our history are by far the dominant providers. ‘Higher education’ itself is defined differently around the world, with some systems including within it quite practical, training institutions.

Broadly, we are focusing on those institutions that deliver bachelor degrees and above, whether or not they also conduct research. However, much of what follows will still be relevant to vocational education in jurisdictions where that is clearly separated out as a sector.

The focus is also on the institution rather than the system, but post-secondary systems around the world will need to be reimaged as well. The good news is that leading, transformed member institutions of those systems will have the most influence on the redesign.

Universities are at or approaching a crossroads: Do they transform? Optimize? Do nothing and hope there is time to react? Or simply do nothing because they are invulnerable? This report, and the framework it introduces, is intended as a guide to the choice of roads to take.

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## Content

“Transformation is not only about the curriculum, learning delivery, student support and research. It is about the back office, the operating model, the technology and, fundamentally, the sum of capabilities that reside in the organization.”

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# End of a golden age for universities

Content

“ The combination of human capital theory, equality of opportunity, the emergence of an export industry and the need for research combined to create a Golden Age of expansion and esteem. ”

Content

Higher education since the Second World War has been an extraordinary growth story, moving from an elite system to a mass- or high-participation system in most jurisdictions. On average globally, one in three young people now enter higher education and more than three in four do so in Europe and North America.<sup>1</sup> This expansion has contributed greatly to life-enrichment, nation-building, social well-being and technological progress.

Higher education growth has far outpaced other forms of growth. Higher education grew by a factor of 6.12 between 1970 and 2013, while population multiplied by 1.93 and real GDP by 3.63.<sup>2</sup> The growth was advocated and justified on various grounds, all of which commanded popular support. ‘Human capital theory’ gave it an economic justification, showing that spending on higher education was actually an investment in economic growth. Equality of opportunity gave it a social justification. It is hard to argue against the idea of equality of opportunity or its close cousin, meritocracy.

Then, the growing middle classes — in populous jurisdictions possessing large numbers of 18 to 24-year-olds and rising GDP but insufficient domestic provision, started sending their children overseas for fee-paying university education. From 1990 onwards, Australia, Canada, the UK and the US in particular benefited to such an extent that international education was seen as an export sector in its own right. In Australia, it is the country’s third-largest form of export and, in the State of Victoria, it is the largest.<sup>3</sup>

In turn, international rankings arrived to inform choice and add the overlay of a prestige market, spurring competition and investment in reputation. By and large over this period there has also been social consensus that research in universities should be publicly funded because, left on its own, the market will likely fail to supply the fundamental or pure research on which the development of technology relies and through which much wealth is generated.

So, the combination of human capital theory, equality of opportunity, the emergence of an export industry and the need for research combined to create a Golden Age of expansion and esteem.

That period is now drawing to a close as a new set of factors have come together.

Attainment rates of bachelor degrees in the young population are reaching 50 percent in some jurisdictions.<sup>4</sup> One consequence is a degree’s decreasing earnings premium; even a negative premium in some instances. In the UK, it is estimated that one-fifth of degrees are not worth the money in terms of future earnings; these students would have been financially better off if they had not gone to university.<sup>5</sup> In a 2020 survey on attitudes to higher education conducted in 11 jurisdictions revealed that 61 percent of respondents said a degree is less valuable than 10 years ago.<sup>6</sup> In the UK, only 44 percent thought that the benefits of going to university outweighed the expense, although the 11-country average was 56 percent.<sup>7</sup>



## Content

A perceived decreasing return on education is coinciding with rising tuition fees and spiraling student debt. In many jurisdictions, tuition fees have risen well above the rate of inflation. University administration has been relatively inefficient, driving up costs. There has been in some places a student amenities 'arms race' to provide the most-inviting campus experience. And the drive for international rankings, based largely on research performance and reputation, has made tuition fees an irresistible source of funds for research. As many university presidents know, if there is an insatiable appetite for funds on this planet, it is in research!

Student debt in the US tripled between 2001 and 2016<sup>8,9</sup> and has begun to undermine the equality of opportunity argument. Poorer students cannot pay fees up front, nor can they get on in the world because they are repaying their tuition debt.<sup>10</sup>

This takes us to a fundamental economic problem which confronts higher education. Along with some other personal services sectors, in particular healthcare and legal services. Usually known as Baumol Cost Disease,<sup>11</sup> universities need to pay salaries to attract and retain sufficient talent, but they are running out of productivity gains under their current operating model. Many have reached the point where having more students in a class, reducing the number of small groups and limiting subject choice are meeting consumer resistance.

An OECD report in June 2020 showed that in 13 selected countries and territories, expenditure per student doubled in higher education after allowing for inflation between 1995 and 2015.<sup>12</sup> This is total expenditure, irrespective of the mix between government and student funding. Some of it may be attributable to administrative bloat and amenities arms races. Some might also be due to more demanding or less academically ready students. But most of it is simply to pay salary costs.

The problem lies in the inability to scale up under the current, largely face-to-face, model of higher education and the organizational culture that surrounds it.

This is not, in theory, a problem if society is willing to pay for it all and productivity is rising in other parts of their economy to create the wealth. However, the gloss has come off universities and there is unwillingness by anyone to pay any more than they do now.

## Content

“The problem lies in the inability to scale up under the current, largely face-to-face, model of higher education and the organizational culture that surrounds it.”

## Context

The gloss has come off with employers. As economic change has sped up, industry has increasingly called for job-ready graduates rather than have to train them in-house; and the expectations of graduates by employers are being disappointed. Many employers say they are looking primarily for things that universities do not directly teach, such as social skills, emotional intelligence, teamwork, communication and time management.

The gloss has come off with governments. Aging populations and the politics of healthcare are a powerful competitor for public funds, and votes. Cuts in public funding for universities have been experienced in many jurisdictions, partly offset by rises in student fees which have compounded the graduate debt problem.

And the gloss has come off amongst some of those who have ardently supported higher education as a force for good and value for money. If it is so good for equity, why is income and wealth inequality rising?<sup>13</sup> If students are paying all this money, why do they mainly see adjunct teachers, and not tenured faculty members?

Parents want their children to go to university, but they can't afford a plumber because skills training and apprenticeships have been displaced by higher education expansion. Has post-secondary education become unbalanced between higher and vocational forms of it? In a possible sign of the times, the UK government in July 2020 said it was dropping the previous government's target of 50 percent of young people going to university.<sup>14</sup>

The Baumol Cost Disease problem has been catching up with universities, but those who pay for them are less and less willing to pay more. Universities have been running out of road and we are going past the equilibrium point, where human aspiration and economic reality balance each other.

But there are other, more-disruptive forces in play which suggest a bleaker future for traditional institutions that do not transform.

The digital revolution is bringing new entrant competitors, particularly in the form of more affordable online education. Depending on the region of the world, e-learning is expected to enjoy a compound annual growth rate of 7.5 to 10.5 percent between 2018 and 2024.<sup>15</sup> Many traditional universities are organizationally unable, or culturally unwilling, to participate in this and some competitors are becoming stronger and stronger.





# Disruption is under way

Content

“The ability to transform will be the critical one for all education institutions to cultivate, so they can shape and respond to a changing world of education.”

Content

The story of universities in the previous section required generalization. Some jurisdictions will continue to support higher education more than others. Some institutions in those jurisdictions will be more successful than others because of hard work, inheritance, location or good fortune.

There are, however, some major drivers of global change affecting us all and from which no institution could be completely immune. The fourth industrial revolution, a fusion of exponential technologies where silicon and carbon meet,<sup>16</sup> will prove to be as profound as the previous revolutions driven by steam, electricity and computing.

Each of the earlier revolutions was accompanied by changes in the mode of education and the institutions that provided it. The school classroom, the worker's institute, the civic, technological and research university, can all be matched with the economic and social needs of their times. There is no reason to expect that the new revolution will be different, but we are at the early stages of thinking about the corresponding changes needed in education. In the view of this report's author, the ability to transform will be the critical one for all education institutions to cultivate, so they can shape and respond to a changing world of education.

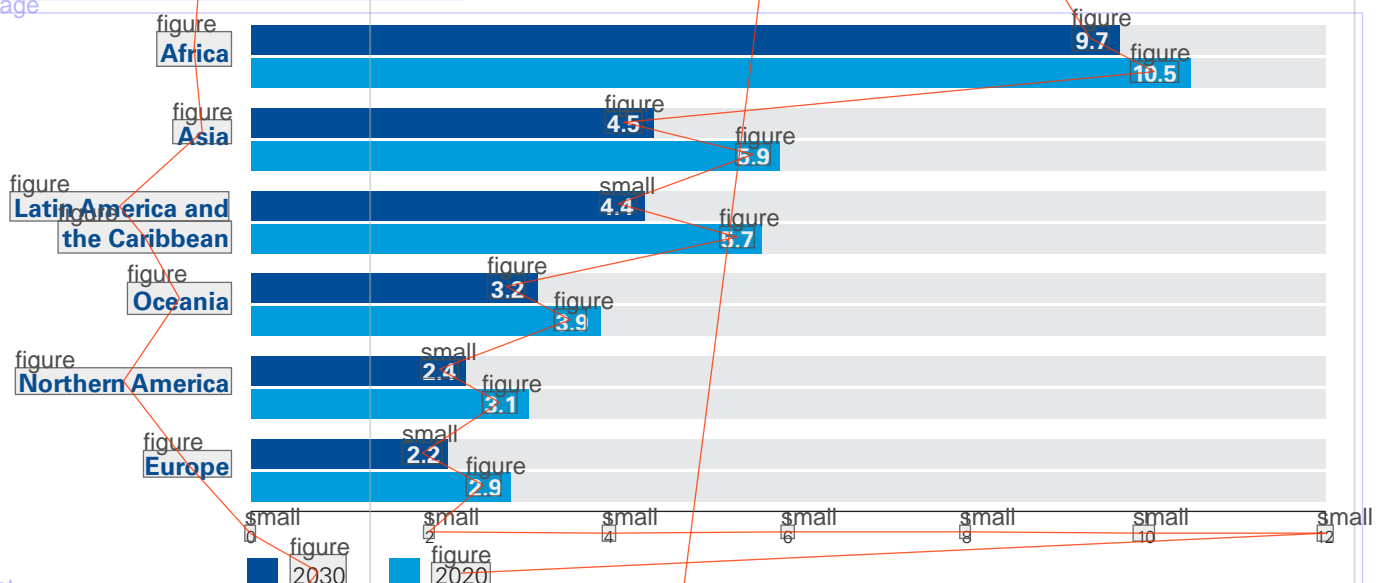
Demographic changes are also underway that influence everything deeply. Some jurisdictions have ageing populations, low fertility rates and a shrinking 'support ratio' of working age people 25-64 to those 65 and older. By 2050, the United Nations believes that 48 countries and territories are likely to have support ratios below two.<sup>17</sup> By contrast, other jurisdictions have fertility rates well above the replacement rate of 2.1, huge young populations, and growing middle classes. Power and influence are shifting inexorably as a result, in what has been described as a global rebalancing between East and West.<sup>18</sup>

ImageDescription

## Potential support ratio by age

(ratio of population by age per population 65+)

Image



ImageDescription

Illustration data source: UN World Population Prospects 2019<sup>19</sup>

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## Content

Universities have experienced this in various ways. Declining domestic enrolments in the US, for example, have been partly offset by growing international numbers. Australia and Canada, which also rely on immigration to maintain population growth, have aggressively promoted their universities as destinations that will strengthen a migration claim. The UK, leaving the European Union, has declared itself “open for talent,” with longer post-study work rights as part of the inducement.

Whatever the eventual impact of the pandemic, international student mobility will not last forever at these levels. China’s domestic university system is improving rapidly, such that it is a study destination. India is investing heavily in its own post-secondary institutions. And we might be seeing a shift in demand internationally away from traditional university study towards more vocational, practical courses. Those universities in low fertility rate jurisdictions which have hitched their business model to international students will urgently need to re-visit their strategy and reduce their costs.

The potential implications of climate change pervade the whole world, as do the implications of policies designed to address global warming. We can expect enormous opportunities for research to enhance our understanding of the situation and the efficacy of policy. Similarly, technologies that will help us to live and work differently, ideally towards zero net emissions, will likely be based on discoveries by universities and research institutes.

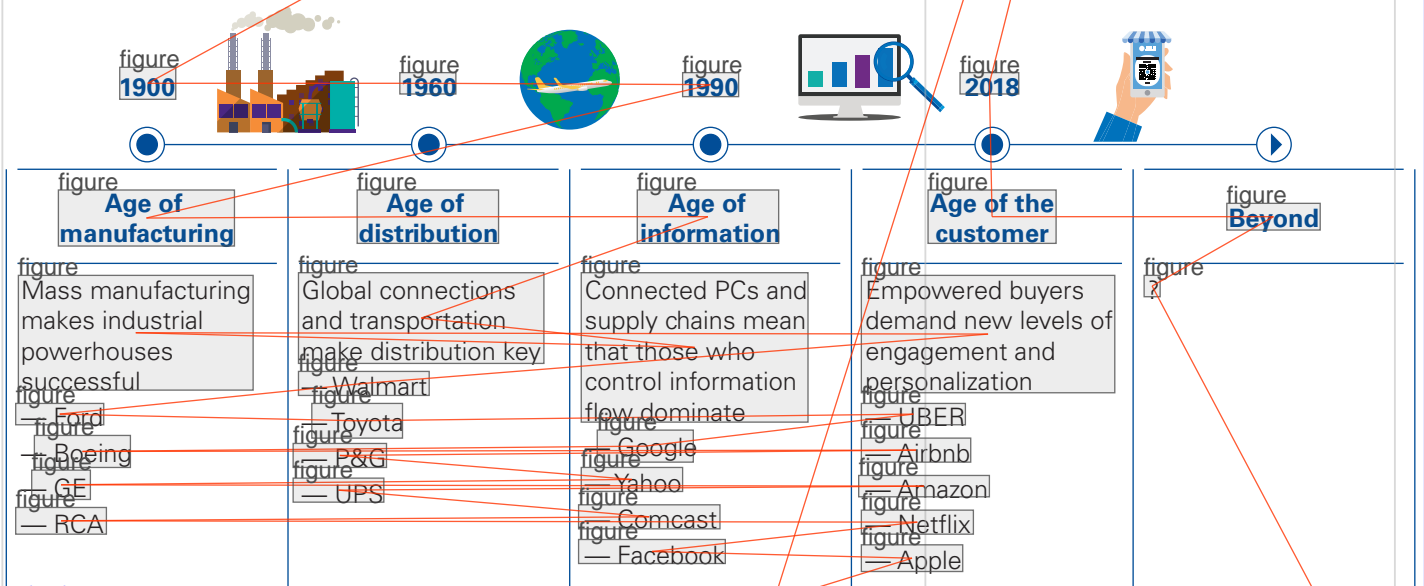
But universities themselves, as public purpose organizations, will need to be exemplars, reducing their emissions from campus operations and doing things differently. International student physical mobility and conference attendance, for example, will be harder to justify when practical alternatives are becoming available. Frugality and cost-benefit thinking will move to center stage.

Finally, in this list of change drivers from which no one is immune is the era that Forrester Research calls the ‘Age of the Customer’.

## Content

“Universities in low fertility rate jurisdictions which have hitched their business model to international students will urgently need to re-visit their strategy and reduce their costs.”

## Image



## ImageDescription

**Illustration source:** The customer-obsessed enterprise: Lead the competition with a clear vision for customer obsession, Forrester Research, 2018.

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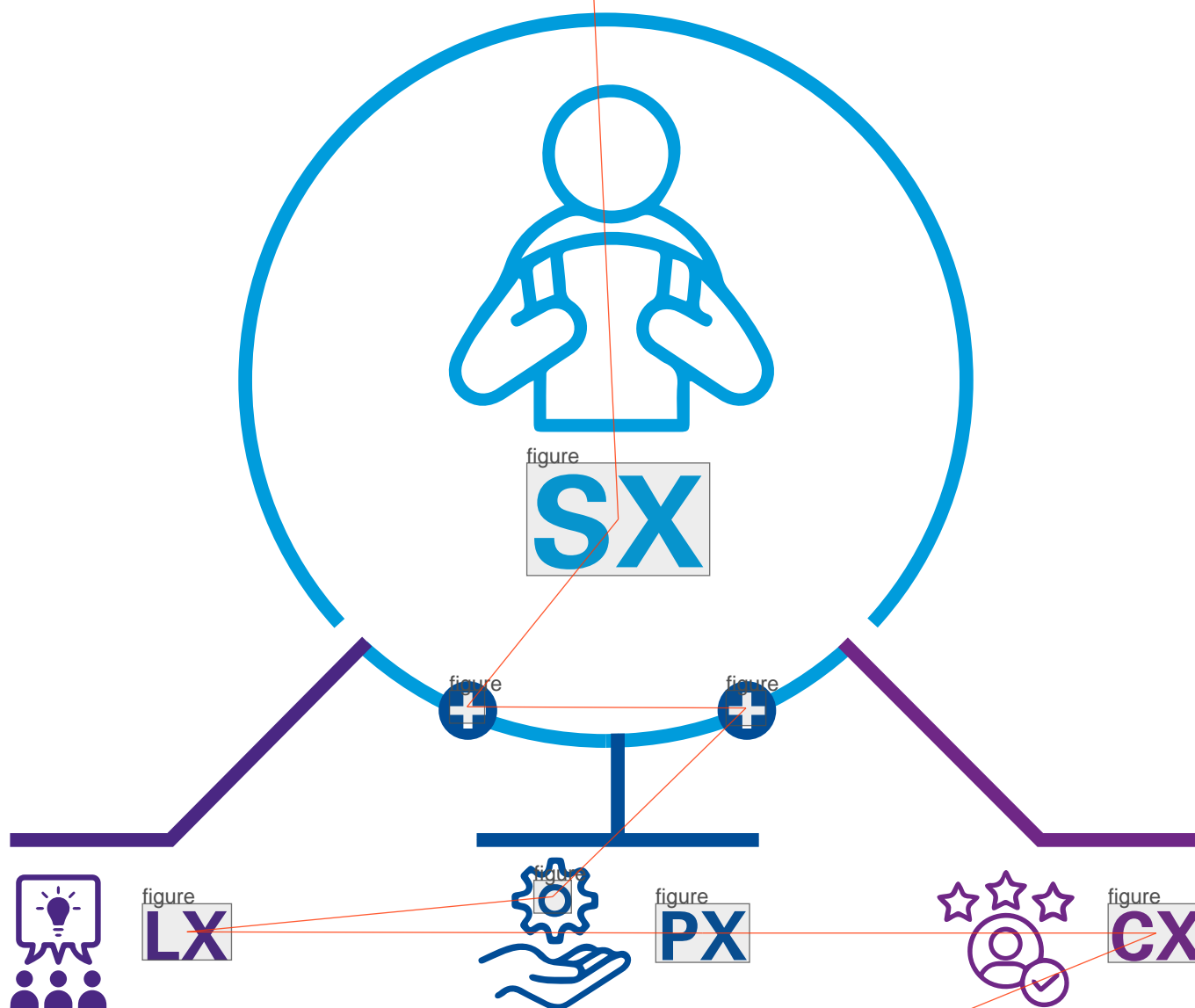
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## Content

The idea of consumer sovereignty is not new, but its application in practice has been restricted. If consumers didn't know about better alternatives, or could not exercise them, or couldn't hear about other consumers' experiences, they stuck with what they knew and what was easily available. Now, with social media, abundant product information, online purchasing and the ability to switch preferences quickly, consumer sovereignty is becoming a reality.

No business can ignore Customer Experience (CX). And the sector is starting to see this in universities, although KPMG education specialists also argue that this should be developed into a more complex idea of Student Experience (SX), which adds in Learner Experience (LX) and Personalized Experience (PX), so that:

## Image



## Content

In the last two decades, many higher education systems have fostered competition between providers to create quasi-markets as those systems moved from elite to mass participation. But the choice of the student was typically constrained by resources, geography and information.

Now these barriers to choice are being overcome. The next shift will likely be from mass face-to-face to mass digital learning. The modal way of engaging with learning is starting to flip.



## Content

In recent years, there has been talk in the sector about blended and flexible learning, but the reality has been that online resources have supplemented the dominant mode of delivery, which was synchronous and in-person. Spurred by the pandemic, but probably coming anyway, is the reverse situation. Courses will be designed to be delivered through technology — 'digital first' — and supplemented by face-to-face, human support.

It is early days, but the written word is already being accompanied by video, mixed reality and simulations, with realistic holograms a possibility. Smart bots for every subject open up the possibility of personalized learning at scale, monitored by advanced learning analytics. And if the student does not have to leave home or work to experience this (unless they wish to), consumer choice finally opens up. The Age of the Customer is now hitting universities.

One might predict that some universities will deliberately promote a physical experience on campus as part of their value proposition. If they have the brand to keep attracting demand, they will always have their place — but they will become the minority. There is also a midway point between physical-learning and virtual-learning environments: the augmented-learning environment, where attendance at a place is overlaid with a much richer view, enabling a deep experience from modest premises.

One thing is clear. The university that expects students to battle with traffic, find a parking place, go to a lecture, write examinations by hand, get a seat in a crowded library and then go home again will be riding its luck.

## Image



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The future of higher education in a disruptive world



# Four building blocks for transforming and optimizing

## Content

As mentioned earlier many higher-education institutions around the world are at or approaching a crossroads. This applies to strategy and to operating model.

- Do they transform?
- Do they optimize?
- Do they do nothing and react later?
- Do they do nothing and take the risk?

KPMG education specialists advise against the fourth of these scenarios, except perhaps for the very few institutions with brands and resources that make the status quo a safer option than any of the known alternatives.

The third scenario (reacting later) might be a reasonable strategy for a further minority which believe they have time on their side and the ability to pivot quickly if they need to. Being wrong about this could be costly, however.

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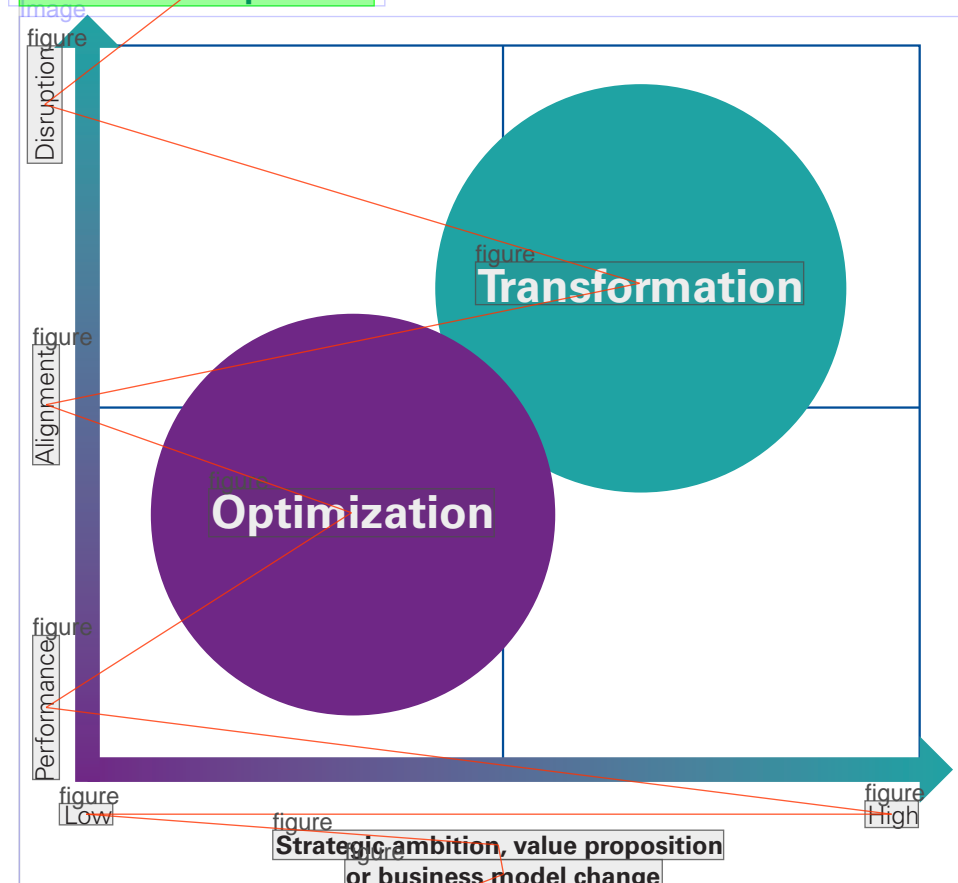


## Content

For the majority of institutions, the realistic choice likely falls between transforming their operating model, and all that goes along with this, in a reasonably short period, or achieving the same outcome over a longer period, spreading the expense and workload — that is, optimizing — while taking the risk of fresh disruption upending them in the meantime.

## Heading

### Transform or optimize?



## Image



## Headline

### Transformation

## Content

Operating model transformation is required where an organization has significantly changed its strategic ambition or requires a fundamental shift in its value proposition and business model

## Headline

### Optimization

## Content

Operating model optimization is where an organization needs to improve its organizational effectiveness and efficiency in order to improve performance to meet its strategic ambition and enact its business model

## Content

The key variables in deciding which is most likely are captured in the neighboring diagram, where the vertical axis deals with motivation considerations (is it about performance improvement, better alignment or dealing with disruption?) and the horizontal axis deals with readiness for change. Optimizers will be focusing mainly on performance improvement and be ready for only limited change. Transformers will have greater strategic ambition and be more focused on disruption.

## title

The future of higher education in a disruptive world

## Whether transformers or optimizers, the four building blocks are the same:

Image



heading

## 1. Strategy

Content

In relation to strategy, much depends on a view of the future, in one's own context. Building on earlier comments in this report, a plausible view of the future may have the following features:

Image



figure

### Borderless

Competitors will be offering programs within the territory assumed in others' catchment areas, and the opportunity is there to do the same. Increasingly this means overseas delivery, as cultural and regulatory resistance diminishes to programs offered online by foreign institutions.

figure

### Shorter courses and degrees

Fewer students will wish to undertake full-service degrees. However, more students will be interested in micro-credentialing, competency-based education, nano-degrees and curated degrees. Unbundling will be prominent, with tuition fees itemized separately for teaching, campus experience and so on. Students will be able to opt out of some aspects of university life and not pay for them.



figure

### Digitally native cohorts

As the proportion grows of young people who are digital natives, with good access to connectivity, interest will grow in borderless education and new kinds of courses, thus accelerating the above two features.

figure

### Experiential learning

Demand will grow for learning by doing. This will challenge the traditional university model. With the exception of teaching and health courses, and perhaps some institutions deliberately set up with this mission, extensive periods in practice are not part of many degrees. Work-integrated learning is hard to scale up in the standard business and operating model of a university, but that is where the demand will be; from students themselves, and their prospective employers.

figure

A likely development in post-secondary systems is a greater integration of higher and vocational education, to create new blends of abstract and applied learning.

Image



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### Lifelong learning

Fueled by the dislocation of workers due to automation and new ways of working, demand will be high for upskilling, reskilling and retraining. Some estimate that almost all growth in formal hours of learning within static populations will be with adult learners who are older than the typical graduate.

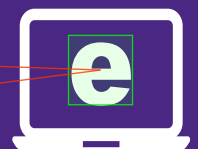
Some universities may move towards a subscription model, whereby for a regular payment, people will have access to a range of programs, thus potentially retaining the loyalty of their students across their lifespan.

heading

### Competing at scale

One of the extraordinary developments in today's economy has been the rise of the platform business. Seven of the 10 largest organizations in the world can be described in this way.<sup>20</sup> The institution that can provide on-demand learning, at scale and personalized to the needs and wishes of the student, is the organization which can build resilience into its future.

We may now see new forms of business model which draw on the entertainment industry, whereby some universities relay and quality assure content and assessment that is actually provided by others, as well as offering their own programs.



### Lifestyle integration

Although not necessarily reducing in absolute numbers, the cohort of young people seeking the immersive, rite-of-passage, full-time, on-campus, bachelor education will reduce as a proportion of the whole student body. More students will be working part-time, undertaking family responsibilities and wanting to integrate learning into their lives rather than interrupt their lives for an immersive experience.

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## 2.Capabilities

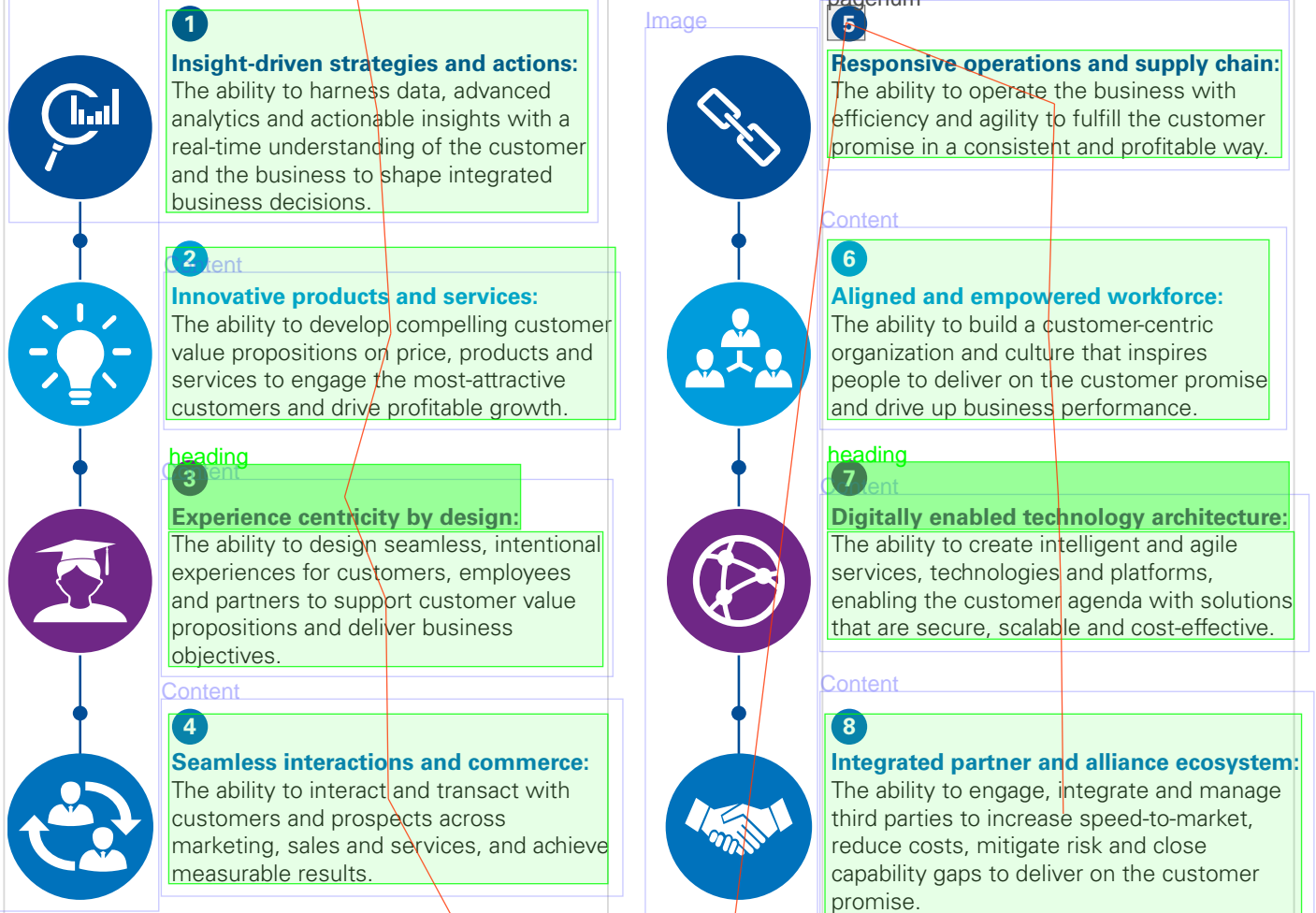
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In 2018, KPMG International commissioned Forrester Consulting to conduct a study on customer-centric strategy decisions across 17 industries.<sup>21</sup> This research identified that organizations that make a moderate or significant investment in all eight of the following capabilities are 2.1 times as likely to deliver customer experiences that exceed expectations, successfully execute on one or more customer-centric objectives, and achieve return on investment on one or more metrics.

Headline

### Eight critical capabilities of connected enterprises

Image



Content

KPMG International, also commissioned Forrester Consulting to survey universities in six jurisdictions for their self-reported investment in these capabilities and, because student centricity seems to be the key to thriving and surviving, we sought a particular focus on investment in customer-centric and related strategies.<sup>22</sup>

An online survey was completed in early 2020, before the pandemic broke, by 410 institutional leaders in higher education in the US, Canada, the UK, Germany, Australia and India. Participants were at departmental chair level or above, and 14 percent were either C-level executives or presidents (and the equivalent).

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A reasonable mix of institutional types and sizes participated, with 49 percent saying they were predominantly face-to-face, 22 percent online and 29 percent blended. About half (49 percent) were teaching and research, 35 percent were teaching only and 15 percent were research intensive. Slightly more institutions were private (54 percent) than public (46 percent), but 63 percent were non-profit.

Eight out of 10 reported that they were putting customer centricity front and center. Twenty-five percent of surveyed higher education decision makers counted their customer-centric strategy among their institutions' top priorities and 51 percent said they were making it a high priority. While institutions across surveyed jurisdictions were placing a similar priority on developing their customer-centric strategies, institutions in India (84 percent) were more likely than institutions in other places to be placing a high or top priority on this effort, while those from Australia (68 percent) were least likely to be placing this level of priority.

Traditional organizational drivers are taking a back seat to more student-focused objectives. Customer-centric strategies are driven largely by objectives centering around the student, rather than by more traditional institutional drivers, such as an increase in grant/donation funding and cost cutting. Improving the student experience (42 percent), improving student trust in the organization (36 percent), and gaining in-depth student insights (35 percent) topped the list. These top drivers were largely consistent across all measured jurisdictions.

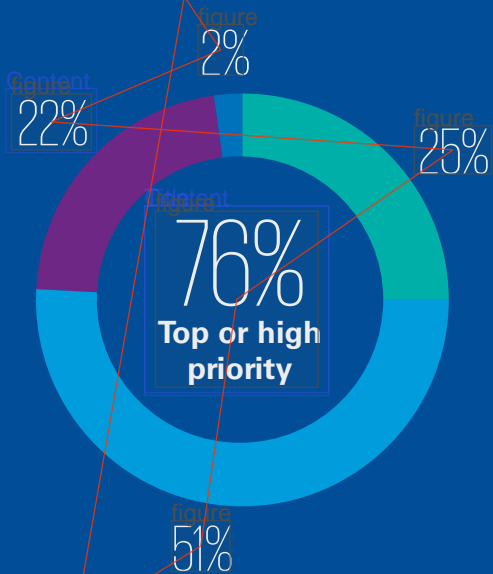
The majority of institutions considered their customer-centric capabilities average at best. Over half of higher-education institutions rated their customer-centric capabilities as less mature (14 percent) or about average (42 percent), compared with similar higher-education institutions. Institutions in India (50 percent) were somewhat more likely to rate their capabilities as more mature compared with their counterparts in Canada (44 percent), the US (43 percent), the UK (42 percent), Australia (36 percent), and Germany (32 percent).

Few are going above and beyond in delivering on the student experience. Just four out of 10 institutions reported that the experience they provide students consistently (9 percent) or even occasionally (28 percent) exceeded student expectations. Institutions in the UK, Germany and Australia lagged behind the other jurisdictions in the study, with just 29, 28 and 24 percent, respectively, indicating that student experience exceeded expectations.

Content

Nearly 8 out of 10 higher education institutions are making customer centricity a top or high priority

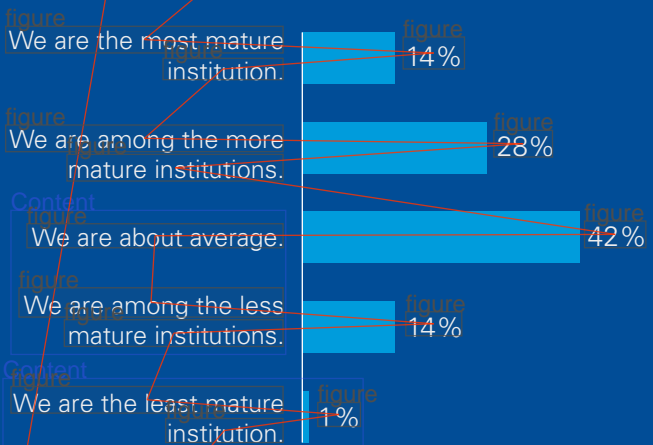
"What priority is your institution placing on its customer-centric strategy?"



- One of our institution's top priorities
- High priority
- On par with other priorities
- Low priority

Base: 410 professionals involved with customer-centric strategy decisions at higher education institutions  
Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, February 2020

How mature do you think your institution's customer-centric capabilities are?



Source: A commissioned study conducted by Forrester Consulting on behalf of KPMG, February 2020

## Content

“Many institutions have some distance to go in matching leading customer experience practices in other sectors.”

## Content

The survey revealed that security, technology and people/process hurdles stand between institutions and the successful execution of customer-centric strategies. While higher-education institutions face numerous obstacles to success, their lack of qualified staff was listed as the number one barrier to the successful execution of customer-centric strategies, cited by 33 percent of respondents.

Barrier number two, cited by 29 percent of institutions, was students who “arrive lacking key academic and/or personal skills.” It is, to put it mildly, unorthodox for a provider which actually selects its own customers then to say that some of them are the problem in executing a customer-centric strategy.

Institutions are also dealing with several other security and technology challenges, including concerns over data security and privacy (31 percent), difficulty sharing student data and analytics between channels, jurisdictions and locations (28 percent), and a lack of integrated communication channels (27 percent).

The KPMG International-commissioned research conducted by Forrester Consulting on its own terms suggests that many institutions have some distance to go in matching leading customer experience practices in other sectors, and it's thought that even their responses might be inflated due to lack of awareness about what other sectors are actually doing.

## Image



Turning specifically to the eight critical capabilities of a connected enterprise, a very mixed picture emerged:



other Content

**Insight-driven strategies and actions:** Sixty-nine percent of respondents had sound data analytics strategy and governance processes, but just half had the analytics tools (49 percent) and data collection and enrichment practices (49 percent) to deliver timely and accurate insights for decision making.



Image

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**Experience centricity by design:** Most institutions said they could design student journeys (73 percent) and were co-designing learning pathways with students (69 percent), but some have more work to do to better integrate their ecosystems for education, research and knowledge exchange, with just 60 percent reporting good or excellent execution in this area.



other

Content

**Responsive operations and supply chain:** Seventy-five percent or more said that operational excellence was embedded in their institution and that their service capabilities were agile, but fewer said that assets and liabilities were aligned with strategy (65 percent) or that their operational approach was driven by a clear view of demand (56 percent).



Content

**Aligned and empowered workforce:** Decision makers gave their institutions high marks for institutional design and governance (68 percent) as well as leadership and culture (67 percent) capabilities. However, they more critically rated their workforce strategy capabilities (59 percent) — the ability to optimize current capabilities, plan for future institution needs and develop career paths that manage and retain talent.



Content

**Seamless interactions and commerce:** Nearly three-quarters (72 percent) rated their intake and referral management capabilities favorably, but institutions could do more to develop a clear channel strategy that promotes seamless interactions and supports omnichannel access, with just 57 percent and 48 percent, respectively, rating their execution as good or excellent.



Content

**Integrated partner and alliance ecosystem:** Most institutions reported having a clear understanding of when to enhance their internal capabilities with those offered by partners (68 percent), but 50 percent lacked integrated partner governance to effectively engage and manage partnerships, alliances and vendors to meet stakeholder needs.



**Innovative products and services:** Most institutions were effective at understanding current and future needs (63 percent), but less-developed at outcome measurement (53 percent) and learning-planning capabilities (49 percent) mean just half were continuously monitoring and improving the quality of learning offerings.



Content

**Digitally enabled technology architecture:** Sixty-seven percent said their digital strategy promoted a flexible, resilient and experience-centric operating model, but only about half built their capabilities on common digital platforms (54 percent) and even fewer had an enterprise architecture that they feel could support both current and future strategy objectives (43 percent).

#### Content

The ability to execute on most capabilities leaves room for improvement, assuming that respondents were not being too optimistic in the first place. Over two-thirds of institutions described their ability to execute on objectives tied to both experience centricity and to responsive operations and supply chain as good or excellent; at least 50 percent cited good or excellent execution on objectives around aligned and empowered workforces (63 percent), seamless interactions and commerce (55 percent), insight-driven strategies and actions (52 percent), and an integrated partner and alliance ecosystem (52 percent). The weakest areas for higher-education institutions included innovative products and services (49 percent) and digitally enabled technology architecture (46 percent).

Near-term investments will focus on shoring up strong areas of execution. In the near term, institutions will be significantly investing in some stronger areas (experience centricity) as well as some weaker areas (digitally enabled architecture). However, many are deprioritizing investments in less-developed areas (innovative products/services).

Long-term investment priorities will remain relatively stable. Over the next two to three years, institutions will continue to put investment into areas of strength (experience centricity), but they will fail to boost investment to improve weaker capabilities (innovative products/services, digitally enabled architecture).

Even though most decision makers surveyed by Forrester Consulting indicated that “consumer centeredness” was a top or high priority, many institutions have designed their service delivery models, operational processes and technology solutions to meet the needs and preferences of funders and policy makers, rather than students.

#### Headline heading

### 3. Operating model

#### Content

A further building block of transformation is adopting a target operating model. Many universities are unable to articulate clearly what is their existing operating model, or at best they post-rationalize from the status quo rather than point to a plan deliberately executed. The challenges ahead require a clear conceptual approach to a target operating model, showing how the enterprise will organize itself to execute its strategy and what detailed processes will be used.

#### Headline heading

### 4. Technology

#### Content

Investment in technology will likely be key to efficient transformation, the challenge being to link seamlessly front-, middle- and back-office systems while coping with the complexity of the modern higher-education institution.

As seen in the KPMG International-commissioned research conducted by Forrester Consulting, only about half of the surveyed higher education institutions built their capabilities on common digital platforms (54 percent) and even fewer had an enterprise architecture that they felt could support both current and future strategy objectives (43 percent).

To reach the scale and efficiency of operations which tomorrow’s funding climate will be willing to pay for, a huge agenda of investment in technology will be required by universities over the next decade.

#### Image





Image





# Conclusions



## Content

For most higher-education institutions, deliberate and proactive transformation or optimization will be the means of surviving and thriving in a world which is becoming tougher. University leaders should be asking themselves:

— How can we operate on a scale that yields productivity gains sufficient to cover our rising salary and other costs?

— Which customers do we want to serve and can do so responsibly?

— How will we really know what they want and feel?

— What are the most important learning, personal and consumer experiences that we need to deliver?

— How can we better use data to make decisions in real-time that meaningfully improve student experiences and make our operations more responsive?

— How future-proofed are our operations and information infrastructure in the face of disruptive factors?

— What organizational capabilities does our workforce require to prepare for the profound changes in roles and workflow brought about by digital transformation?

These are complex questions with many potential solutions and outcomes. The way forward is to design and execute a comprehensive strategy and blueprint built on the foundations of KPMG's Connected Enterprise for Higher Education framework.

heading

# How KPMG can help

## Content

Higher education leaders everywhere are struggling with the same profound questions concerning student experience, staffing, costs, value enhancement and more. KPMG Connected Enterprise for Higher Education is a consumer-centric, enterprise-wide blueprint for digitally transforming universities.

This research-based<sup>23</sup> framework is designed to help position institutions to drive increased value and returns by intentionally designing and aligning the elements of a university to help deliver seamless, consumer-centered experiences.

heading

## KPMG Connected Enterprise for Higher Education

Content

- Helping institutions identify how key organizational elements align with desired consumer experiences
- Using target operating models to illustrate the future state of institutions to support sustainable transformation

heading

### Enterprise on a page

#### Organization elements



#### Customers

Students, alumni, communities, government, industry, and partners



#### Core business practices

- Curriculum and learning lifecycle
- Student lifecycle
- Support and engagement services
- Research lifecycle
- Research and commercialization



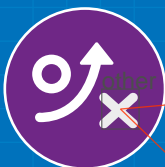
#### Channels

In-person, telephone, email, text and web chat, websites, mobile apps, digital signage, social media, and contact centers



#### Advanced data and analytics

- Visualization and insights
- Scenario planning and modelling
- Master data management
- Governance



#### Enterprise strategy

Strategic ambition, planning and measures



#### Enabling business practices

- Enterprise technology
- Enterprise operations

heading

The future of higher education in a disruptive world

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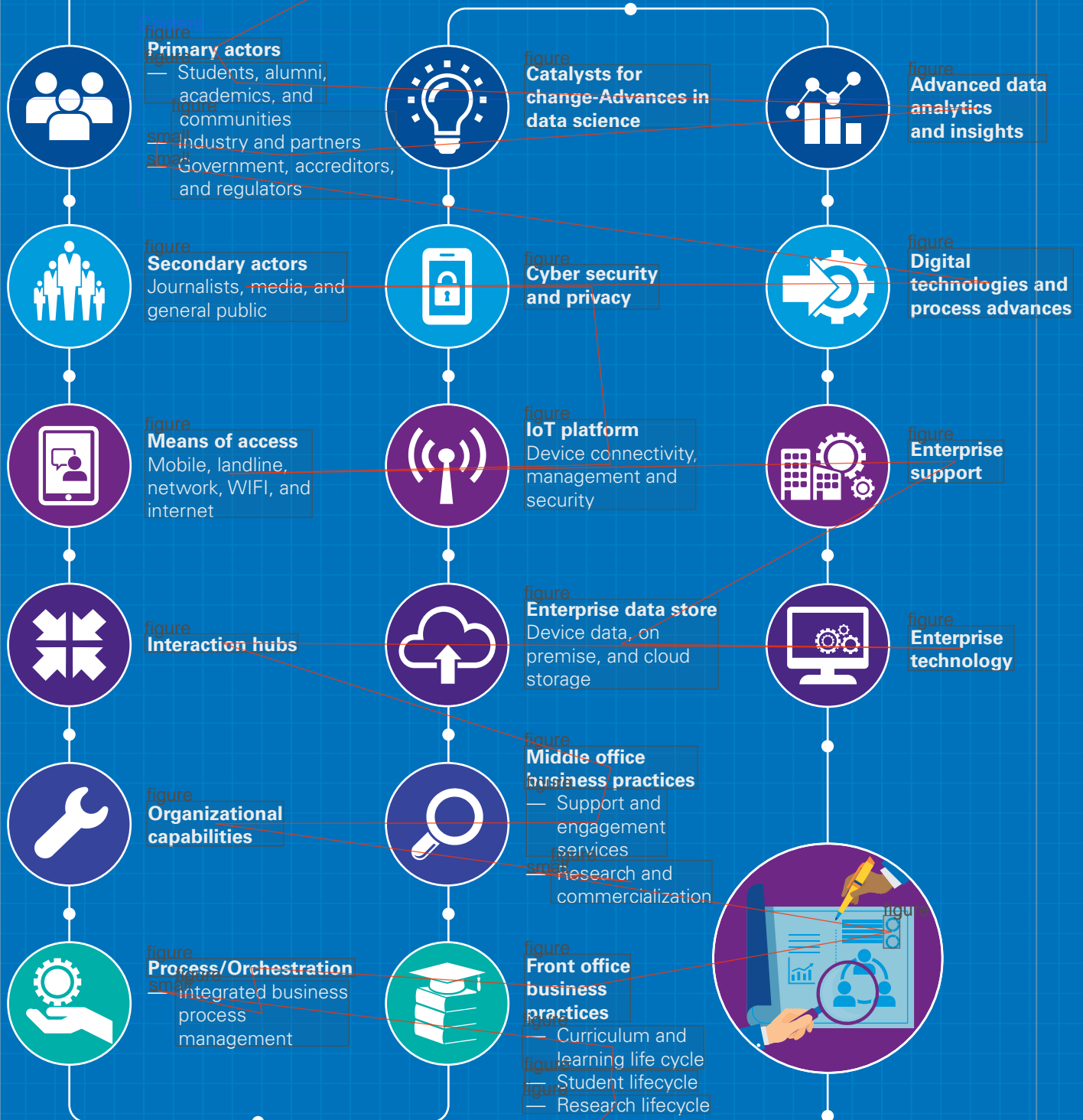
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# KPMG Connected Enterprise for Higher Education

A technology architecture blueprint for implementation of the digital enablers for transformation



Education specialists with KPMG member firms use their experience and deep understanding of the sector — coupled with insights from transformation in other industries, to work with clients to demystify future opportunities and turn them into actionable next steps in a digital transformation journey.

Contact us today to get a maturity assessment of your organization's consumer-centric capabilities and insights into how your university can become more connected.

Headline  
heading

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Stephen began his career in law, working in private practice and academia in the UK. Over the last 30 years he has held a number of high-profile roles in the Australian education sector including the Vice-Chancellor and President, University of Canberra, Senior Deputy Vice-Chancellor and Vice-President, Monash University and most recently, Director of Global, Development and Strategy at The Conversation.

In 2014, Stephen received the Order of Australia for “distinguished services to tertiary education through administrative, academic and representational roles, and as a leader in the growth and development of the University of Canberra”

Stephen leads KPMG International’s Education and Skills network which spans 11 countries and territories. As KPMG Australia’s Special Adviser on Education he continues his passion for Australia’s social and economic future through improvements in education and research outcomes. Stephen also leads the firm’s work across all parts of the sector including higher education, vocational and training and school education.

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The future of higher education in a disruptive world

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# End notes

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### footnote

23. *Ibid.*





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