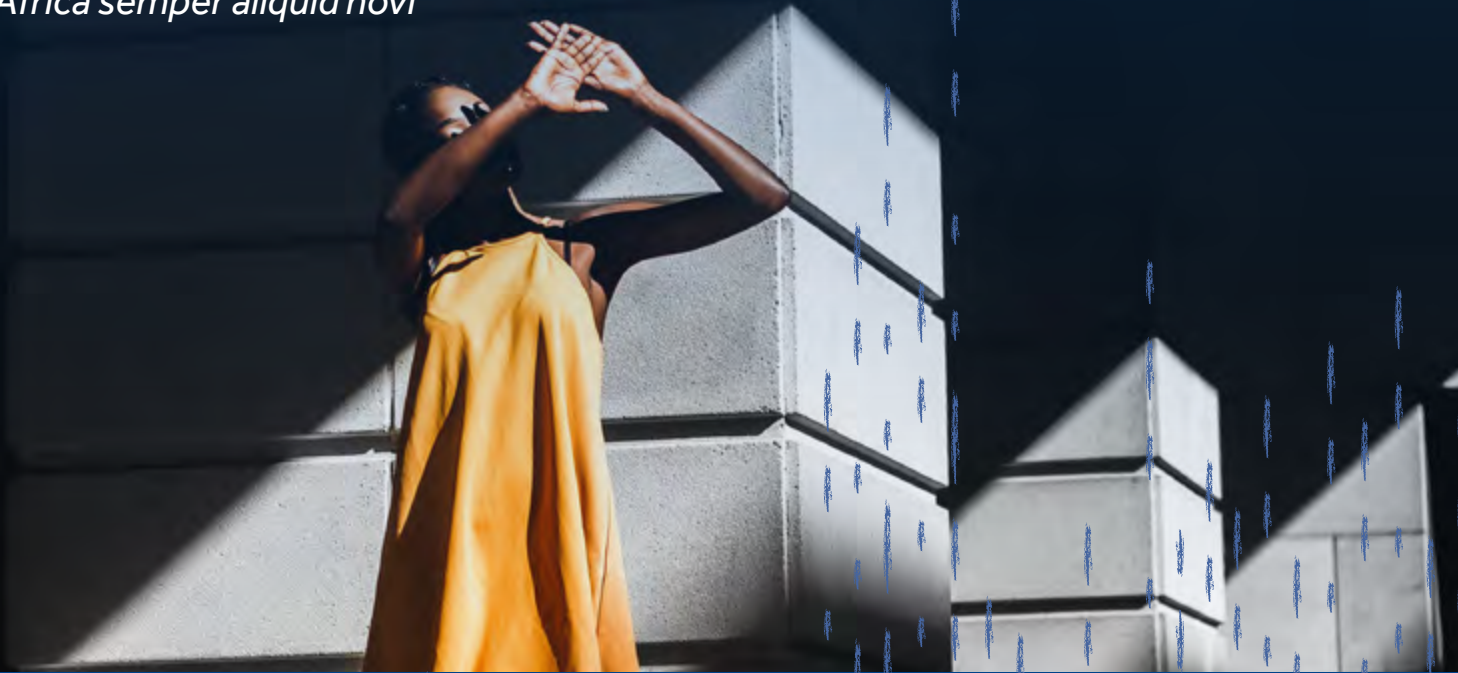


Thought Leadership at Henley Business School Africa:

Innovations, Provocations, and Explanations

A white paper series based on groundbreaking thought leadership

Ex Africa semper aliquid novi



Keeping pace with an unfolding future

Jonathan Foster-Pedley | Dr Mélanie Prinsloo | Louise Claassen

Is your business in step with an unfolding future?

One of the criticisms levelled at business schools in recent years has been a call for greater responsiveness to social needs and the changing ecosystem in which businesses operate. Adjusting a complex curriculum takes time and the input of committees and pedagogy experts, as well as consultation with business leaders. Similarly, the process of publishing detailed academic case studies and journal articles is an exercise in patience, peer reviews, and often extensive collaboration across borders.

Caught between the demands of ensuring academic excellence and the pressure to offer relevant and innovative real-time insights to business leaders, the white paper format has been embraced as an effective means of more immediate engagement. A focused report delving into a specific issue or solution, the white paper is easy to digest. It is engaging, prioritises a specific topic, and is still underpinned by academic rigour.

In 2022, Henley Business School Africa responded to the call for increased guidance, input, and discussion around the profound changes and disruption impacting how organisations operate by publishing a range of white papers. Therefore, the Henley Business School Africa white papers published over the course of 2022 are a reflection of the current state of business and the world. They are also important stepping stones for future output and exploration by our experts.

True to our motto, *Ex Africa semper aliquid novi* (always something new from Africa), our new journal – *Thought Leadership at Henley Business School Africa: Innovations, Provocations, and Explanations* – packages a selection of these white papers per theme to highlight just some of our ground-breaking thought innovations. In light of the current disruptions to business, society, and the world of higher learning, our inaugural *Thought Leadership* journal draws on the words of Alvin Toffler, the American businessman and futurist, who argued that: 'The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.'

What is on the menu?

As Henley Business School Africa's Dean, I was happy to lead this charge from the front by producing a research-based white paper that explores the ways in which African business schools can have a profound and long-lasting impact in an unequal society. It is my view that business schools must be particularly cognisant of the influence they wield and aware of their potential to make an imprint that extends beyond the role of business to the creation of a more inclusive and sustainable ecosystem. This is most certainly the case in Africa.

The theme of business schools maintaining relevance in an uncertain and unfolding future, which was my focus in *Amplifying the impact of African business schools*, was central to the future focus of two other white papers published in 2022. Dr Mélanie Prinsloo produced *How machine learning is transforming revenue assurance into a real-time business tool*, and Ms Louise Claassen contributed her white paper, *Virtual reality in business education*. Both Dr Prinsloo and Ms Claassen presented artificial intelligence (AI) and machine-learning solutions that have the potential to profoundly improve the depth of business education and transform the way in which businesses operate.

Much has been published in the COVID-19 and post-COVID-19 years about the digital acceleration, but are business schools – the bastions of learning and unlearning for corporations around the world – harnessing the same technology to improve their approach and reach? Ms Claassen shared the experiences of Henley Africa's VR LAB experience, an exciting immersive learning platform that brings the future into the present.

Meanwhile, Dr Prinsloo focused on a nuts-and-bolts issue facing every business: leakage. What started life as revenue assurance has morphed into a business-wide function 'that seeks to make sense of the full range of business operations by drawing on data across the organisation to identify gaps and leakages that impact efficiencies and, increasingly, customer experience'. Again, AI and machine-learning tools may hold the answer.

I trust that these contributions will help you rethink the world as we know it.

Dean Jonathan Foster-Pedley



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Disclaimer

Aligned with our mission, 'We build the people who build the businesses that build Africa', we facilitate open, multi-perspective conversations and the generation of thought leadership pieces, such as this white paper. However, the views expressed in this white paper are solely those of the author and not necessarily those of Henley Business School Africa.

Amplifying the impact of African business schools

Jonathan Foster-Pedley

Dean and Director, Henley
Business School Africa
Chairperson, Association of
African Business Schools

June 2022



Henley
Business School

AFRICA

Impact: The ability to have a marked effect or influence on a situation, a person or a process.

(Collins, 2022)



If business schools fail to have an impact on their students and the clients for whom they work, then they are inadequately fulfilling their mandate.

In Africa, where context, societal demands, and widespread development challenges are far-reaching, business schools must be especially cognisant of the influence they wield and their potential to make an imprint that extends beyond the role of business to the creation of more inclusive and sustainable ecosystem.

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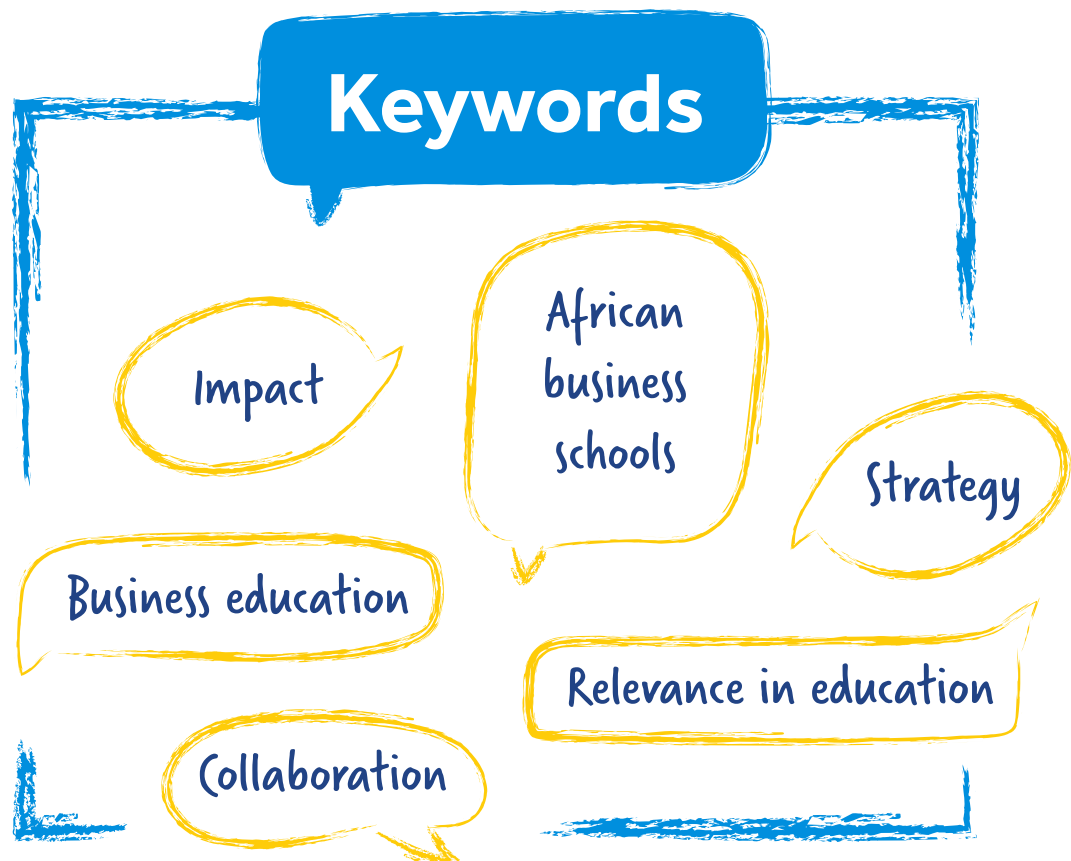
Abstract

African and international business school experts all have an opinion on what impact means for business schools and how African institutions can go about increasing the relevance of their offerings.

Now, why should African business schools care about impact? Is it simply because it has become a buzzword for business schools the world over? Is it because management education institutions are battling for legitimacy in a world of easy-to-access digital solutions and a wealth of educational options? Or is it because producing quality

leaders capable of navigating changing global and African contexts has ripple effects beyond business?

This paper sets out to categorise input from key commentators in an effort to better understand the areas where African business schools could be making a difference. Thereafter, the paper broadens the discussion to ways in which institutions of business and management education in Africa can reinvent themselves and their curricula to embrace a broader, more strategic role in society.



Impact: the global business school buzzword

Since the world's first business school was founded in the United States (US) in 1881 – the Wharton School of Finance and Economy – criticisms have been levelled at how business leaders are taught and developed (Wren and Van Fleet, 1983). In 1881, concerns hinged on the practical nature of the Wharton offering, and the fact that 'the business school would lower the 'level of scholarship' (Wren and Van Fleet, 1983: 29). Over time, this morphed into fears that the increased focus on academic excellence was impacting the practical 'competence of their graduates' or 'how well their faculties understand important drivers of business performance' (Bennis and O'Toole, 2005).

More recently, acclaimed authors and academics like Henry Mintzberg, Howard Thomas, and Ken Starkey have delved into the recurrent criticisms of business schools amidst fears that these institutions are no longer 'fit for purpose' (Starkey and Thomas, 2019) in a global environment undergoing profound mindset shifts around leadership, strategy, sustainability and the role of business in society. Mintzberg (2010: 1), a vocal critic of the global business school model, elaborated on his views in a personal essay:

No manager, let alone leader, has ever been created in a classroom.... Management/leadership is a practice, rooted in experience, not a science or profession, rooted in analysis. What a classroom can do is take people with that experience and the demonstrated skills of leadership, and leverage that alongside their natural inclination to drive necessary change.

It has been said about bacon and eggs that while the chicken is involved, the pig is committed. Development is about commitment: to the job, for sure, but also to the organization, and beyond that, to society in a responsible way.

Similarly, the sustainability of the current teaching model of business schools has been found wanting, as has the focus on research and rankings at the expense of 'innovation and diversity in the field', insufficient engagement with the practice of business, and the need to tailor curricula that are relevant to a changing world (Wilson and Thomas, 2012: 371). Collectively, these criticisms increasingly fall under the umbrella term 'impact' (Lejeune et al., 2019), which spans far more than mere economic or business impact, and should be seen to encompass a multi-stakeholder view that extends beyond academia and the student experience, including the private sector, media, professional and trade organisations, government, and the public sector (Thomas et al., 2013). More recently, Kalika and Shenton (2021) published a seven-dimension impact assessment system for business schools, broadening the discussion to, for instance, social impact, organisational culture, and economic development.

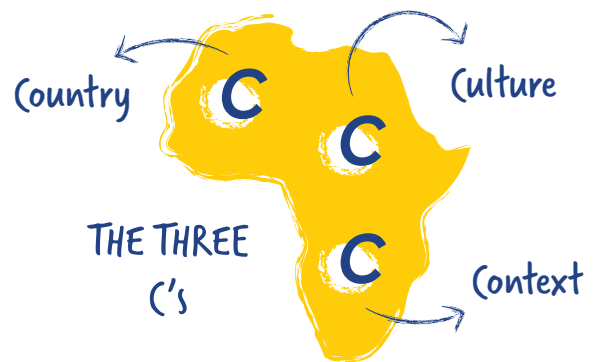
While many of these dimensions apply to African business schools, there are key differentiators within the African context that require a unique assessment framework for understanding the ecosystem in which African business schools operate and the available strategic opportunities for reinvention.

This paper proposes the African Business School Impact Action Plan as the starting point for such a framework.

How can African business schools have impact?

Measuring impact in an African business school environment encompasses what Thomas defined as the 'three Cs': Country, Culture, and Context (Business Education Jam, 2018). In addition to these three Cs, businesses schools operating in Africa must expand their ecosystem to include the continent as a whole – specifically the region in which the institution operates, be it North, East, West, South or Central Africa. In much the same way that a Europe-based business school cannot divorce itself from the context of the European Union or a Latin American institution is undoubtedly influenced by the culture evolving from its unique geography and history, so too are the many areas of potential impact open to an African business school. Specifically, an African business school is coloured by the experience of the continent as a whole and the growing influence of an emerging African identity (Thomas et al., 2017).

There is no limit to the areas in which African business schools can widen their footprint. Poised at the intersect of business, civil society and government, African business schools can – and should – carve out a more far-reaching role for themselves. A role that enables them to do more than just produce transformative leaders capable of driving business forward, but to equip those leaders with the skills and mindset necessary to solve Africa's many social, political, and economic challenges.



Prevailing challenges

Gaining the perspective of role players

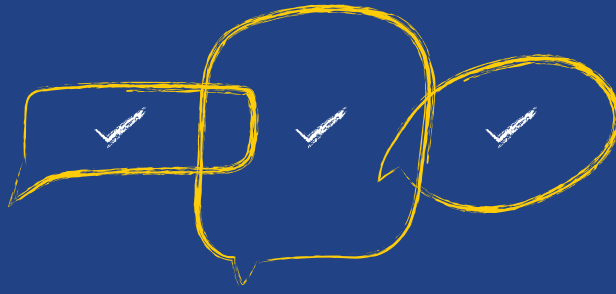
To achieve this vision, 10 in-depth, semi-structured interviews were conducted with current and former African business school deans, international experts in management education, and educators and provocateurs in the higher education space.

Research methodology

Twenty-five African experts, including business school deans, former deans or senior leaders based at business schools across the continent as well as global educators and provocateurs in the higher education space, were approached for comment.

Participation was voluntary and, in all instances, informed consent was obtained prior to the interview taking place. All comments and input from those interviewed were anonymised and any references within the data to individuals or identities were removed.

- Ultimately, 10 individuals were interviewed by means of semi-structured interviews.
- Commentators were asked two core questions:
 - In what ways can an African business school have impact?
 - How can/should business schools be reinventing themselves to have an impact?
- Themes were drawn using qualitative and intuitive analysis, supported by additional research.
- Experts' inputs were analysed through qualitative and intuitive analysis.



Consensus

The initial findings have been drawn together to understand the areas of impact. Thereafter, a framework was formed that can be used by African business schools to gauge not only their current influence on the broader ecosystem, but also the strategic direction they should be following in the future.

It became evident that in order to amplify the range of impacts within the grasp of African business schools, the following must be achieved:

- Get the fundamentals of quality education right;
- Build solid reputations and faculty expertise;
- Collaborate within the continent;
- Create curricula that are relevant to both Africa and the world;
- Harness the reach of digital tools and innovation;
- Focus on working with business and

- government to solve African problems;
- Be bold in outlining areas of potential impact; and
- Create workable and forward-thinking strategies that support the purpose, relevance, and evolution of African business schools.

While it may still be possible for business schools operating in a developed world context to more neatly define the dimension of impact, the African experience must be integrally tied to the social, economic, and cultural advancement of the continent.

To achieve the required depth of impact, African business schools must walk a tightrope between positioning themselves in the global order as institutions of quality and relevance, and adapting the prevailing business school model to make a tangible difference in African societies through practical outputs and measurable influence.



Insight overview

The qualitative data gathered highlighted a clear trend when it came to the impact of African business schools, namely that these institutions should be positioning themselves beyond the limits of business and carving out a space that moves beyond a narrow production of MBAs to contributing towards building more sustainable countries that collectively support Africa's development. As one commentator observed:



Business schools are about producing transformative leaders for society. Leaders with the relevant knowledge and know-how to drive this continent forward.... One of the ways we should measure business schools is the impact on quality of the graduates and moving the continent forward by solving key and major challenges and issues facing the continent. If we are not producing problem-solvers ... with the right competencies with the right vision for this continent, then we are failing as a group of business schools.

To effect this seemingly shared, long-term vision of a collective of institutions focused on 'educating people who can make a change and lead Africa', a roadmap is necessary, one that considers 'we are talking about not a country ... but a continent'. As one commentator said:

It's enormously complex to truthfully answer these questions in the context of a continent versus a country or even a region of a continent. It's exceedingly complex when we talk about the African business school context in Liberia, or Ethiopia, versus a Ghana or a South Africa or a Nigeria. It's very, very difficult to embrace this or even discuss it in a one-size-fits-all model, because that model just doesn't exist.

Moreover, it is important to recognise that, as a continent, grassroots development of the business school space is still in its infancy in some countries. As one commentator stated:

We have 54 countries in Africa, but we don't even have 10 or 12 good business schools. At least we should have one good business school in every country. But that is not the case. I've always said there are three, maybe four, very good business schools in South Africa, one in Egypt, one or two in Morocco, one in Nigeria, one in Ghana, one in Kenya, one in Tunisia. That's about it.

Furthermore, even this handful of standout institutions often do not make it onto the radar of the top global business schools when they go toe-to-toe with their European, American or Asian counterparts. Some of the comments in this regard were harsh, but paint a picture of global relevance that business schools operating in Africa cannot ignore. One of the commentators highlighted, 'African MBAs could have a better global context. There's room for dreamers, but we need people who can execute and our institutions can't afford to [be] ivory towers. We need action.'

Another telling comment from a commentator that is worth noting:

Business schools also have to teach people how to learn, unlearn and relearn. In that process, we will attract people who also have a sense of purpose, and not just a ... need for money. And people will come to and challenge business schools to give them that sense of purpose to connect with other like-minded people. We will be failing if we don't produce graduates who have no sense of purpose for this continent. We will be failing.

Several commentators observed that there was already a tendency for African businesses to send promising employees abroad to study, rather than opting to send them to African institutions. This might also have something to do with an individual's expected annual salary, which after completing an MBA at Harvard Business School in the US is around US\$200 000 (Lake, 2021), versus an estimate of 'US\$50 000–US\$60 000 for a South African business school' (BusinessTech, 2019). This underlines the tendency of African businesses to send their top talent abroad to study. Therefore: **African business schools cannot afford to ignore the global context in which they are operating.**

However, even when operating within the confines of international accreditation and research guidelines, and competing on the world stage for top-flight academics, staff, and students, it is still possible, as one commentator put it, to ensure that 'The compass should be Africa.'



As a continent, grassroots development of the business school space is still in its infancy in some countries.

Areas of impact

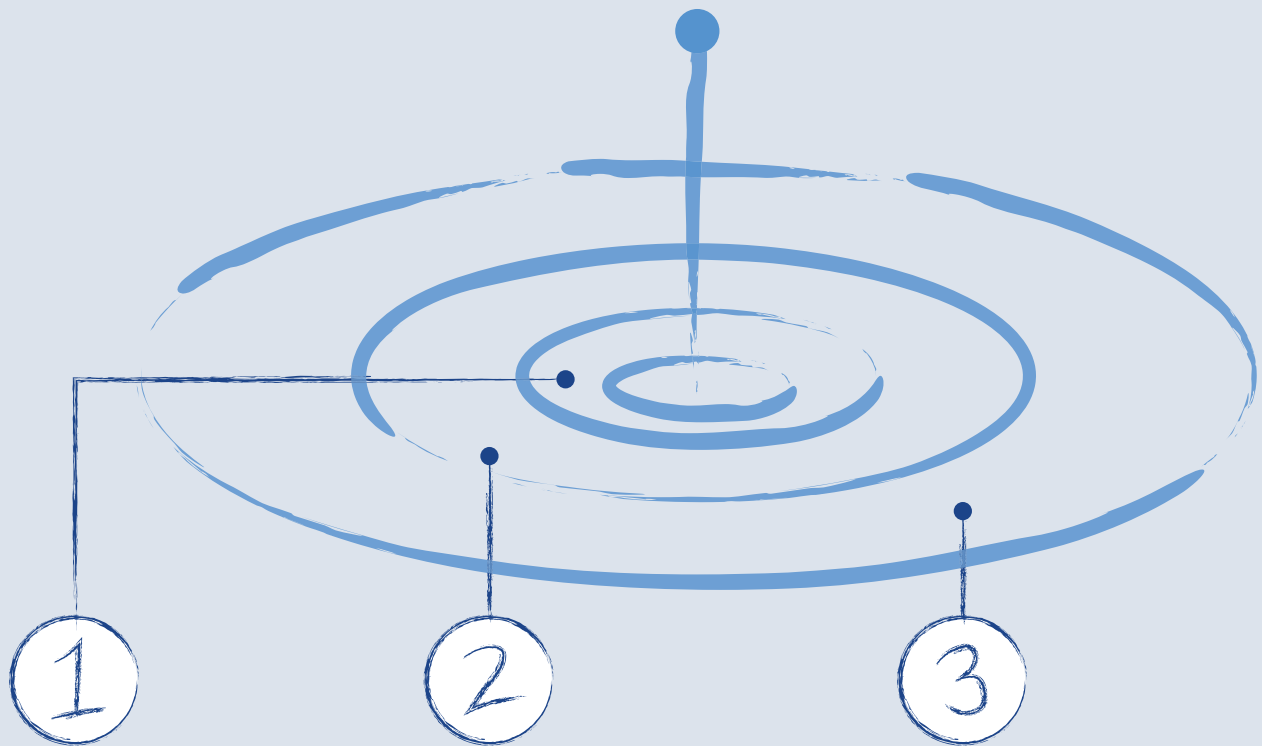
While the findings and insights gathered were in-depth and wide-ranging, several areas of impact were drawn out, which were broadly grouped as having either direct impact, social impact, or systemic impact (refer to Figure 1).

Direct impact refers to the business model and pedagogical approach of business schools themselves. This spills over to the broader **social impact**, which encompasses the society, students, and organisations that African business schools cater to and whose experience of the business school offering affects personal and professional approaches to business and leadership as well as the mindset and culture of organisations and their leaders.

Finally, systemic impact broadens the areas of impact to include country-specific influences, which have the potential to fundamentally change the national approach and discourse around key differentiators, such as leadership style and each country's standing in a globalised world.

Each subsystem of impact is outlined briefly in this section, supported by views expressed by the commentators.

African Business Schools



Direct Impact

- Programme and curriculum design
- Quality and relevance of educational offerings
- Producing top leaders
- Ensuring relevant research outputs and enhancing greater collaboration
- Current systems for academic rewards, promotions, and rankings

Social Impact

- Solving local problems
- Being relevant to the youth and entrepreneurship

Systemic Impact

- Envisaging and developing a country's entire educational ecosystem
- Influencing policy and advocating for change
- Teaching business ethics and seeking to capacitate leaders across all areas of society

Figure 1: The African business school impact ecosystem

Direct Impact



The direct impacts raised during the qualitative analysis included: **programme and curriculum design**; the **quality and relevance of educational offerings**; the **business school's ability to produce top leaders who can navigate change**; **ensuring relevant research outputs and encouraging collaboration**, specifically at a pan-African level; and being mindful of the **role of current systems for academic rewards, promotions and rankings**. These impacts are examined in more detail below.

Programme and curriculum design:

Given the context in which African business schools operate and the wealth of social, economic, infrastructure, governance, equality, and climate change issues facing the continent (Africa Growth Initiative, 2022), it was noteworthy that so many commentators focused on the importance of relevant and appropriate programme and curriculum design. Not all comments were positive, but they largely showed a desire to equip students with a stronger understanding of the issues facing Africa, from youth demographics to high unemployment rates and widespread corruption.

Several commentators called for a 'module on the continent', which embeds a 'sense of purpose for this continent'. Other insights included:

There are certain fundamental things that currently business schools [in Africa] are not in touch with. They still measure themselves by metrics that are very Western defined. The curriculum is very much driven from the centre, not with the aim of being relevant to where it is being delivered and which talent it is developing for.

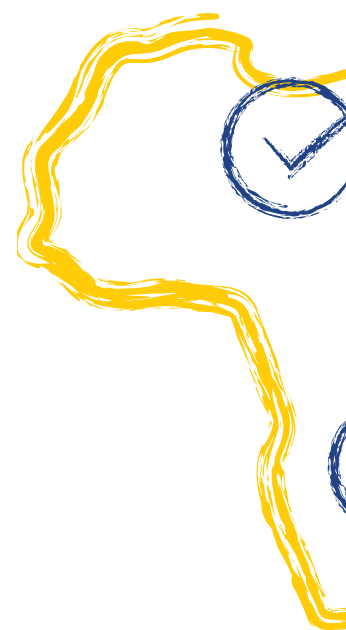
You can't design a programme which may have come from Harvard, or wherever, and then expect it to work in Africa. Those models are a good starting point, but they have to be adapted.

I believe we put together a fantastic programme with [the institution] on doing business in Africa. But is it enough? No. Are we offering it to our business schools across the continent? Absolutely no. So, I think the problem is orientation, it's structure, it's resources. And it's looking at home – Africa – and try[ing] to fix the house before actually trying to work with others.

Quality and relevance of educational offerings:

This impact was closely linked to the issue of curricula design and an African business school's ability to produce top leaders who can navigate change. These aspects of direct impact were also closely linked to a relevant Africa-focused offering.

The kind of quality of graduates that business schools are producing should all tick a couple of non-negotiables. Things like a good understanding of the continent. They need to be on top of what the issues are facing the continent – not just their countries, but the continent at large. To addressing some of the issues that we are seeing in our current leaders, like a lack of integrity. Those should be non-negotiables. [As well as things like] a good understanding of the key developmental issues the country is facing.



Producing top leaders:

Several commentators felt that when it comes to leadership education, African business schools are not always producing leaders capable of taking the continent forward:

We did some research on African leadership. Unfortunately, it wasn't a great result. What we saw was that we had a lot of absent leaders, absent managers in the organisation. They were drawing a salary but not doing any work. They are dealing with an environment that is so complex, an organisational environment and work environment that is so complex, it becomes intimidating. So, it's easier to do nothing, to just disappear. We call them absent managers.

Ensuring relevant research outputs and enhancing greater collaboration:

Another area of impact that faced considerable interrogation was the relevance of research outputs, which was integrally tied to enabling and encouraging greater collaboration between academics from around Africa. A consistent call for African business schools to undertake more practical and relevant research was supported by comments like:

The faculty research mandate in business school should be different from the mandate in universities. Universities are more looking at theoretical frameworks and driving theory and academic research. [At] the business school, you are talking about relevant research that will help solve industry, social and institutional problems. It is more practical.

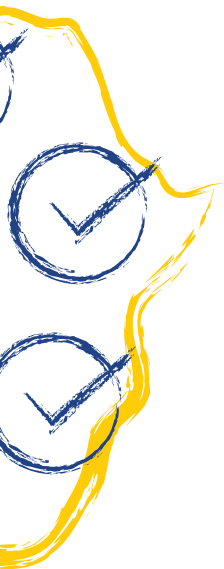
How much research are our researchers doing on Africa? How many collective research projects – and consequently funding – is put for African researchers, from north to south, east, west, to work together in collaborative research projects? Things that address SDGs [Sustainable Development Goals], water, climate, sustainability.... The opportunities for research that can transform society and impact policy is much, much higher when it comes to Africa than the other countries.

We want research that is published in those sorts of [A-star journals], but that research does not necessarily go towards solving Africa's either social or institutional problems. There's always a conflict. But I think there can be both.

There is a lot of work across many African countries around centres of excellence in research proper. I think that's a critical area. But I would suggest in many cases, it's got to be applied research. It's got to be research that is of immediate value to a sector.

And then, some food for thought:

The more we collaborate the more impact we'll make. That one thing that African business schools are not doing enough. Why do we send our students on exchange programmes only into schools in America, in Europe? Why don't we do more of it among the business schools in Africa? Why aren't the faculty collaborating in terms of research and programme design?



Current systems for academic rewards, promotions, and rankings:

In line with a desire to refocus research output towards practical African insights was a strong trend towards revisiting the role of current systems for academic rewards, promotions, and rankings. Instead of looking down on case studies and pushing for publication in top, five-star or four-star international journals, several commentators spoke of shifts in how compensation is determined and academics rewarded, with one expressing:

'We have to redefine how we recognise achievement of faculty in terms of promotions and rewards.' Other commentators suggested that faculty who consult to business, should be rewarded for that output, given that 'consulting not only helps to solve problems but you also bring current issues into the classroom'.

However, not all commentators favoured an approach that reduced the importance of being published in top journals, largely because African business schools still operate in a global and interconnected world and operating in a bubble would only seek to widen the gulf between leading global schools and those from the continent. As one commentator excellently stated:

Business needs to really transcend borders, and leading business schools are truly international places ... places of excellent and unlimited 'internationalism'. I'm not saying we should fixate on the north or northern hemisphere and western European studies and paradigms, but let's not deny the excellence that can be brought by those and applying them to our own cases, of which there are plenty. But are we trying to grow economies quickly, or maintain our status quo?

Social Impact

Drawing on the debate around relevant African research, the first key aspect of social impact concerned business schools **focusing on solving local problems**, which includes finding ways to be **relevant to the youth** and being mindful of the potential and challenges of a young continent, where almost 60% of the growing population is younger than 25 (Kariba, 2020). Closely linked to Africa's youth population was the growing call to upskill young Africans to **encourage entrepreneurship** (Ugochukwu, 2022).

Solving local problems:

The comments and insights gathered pointed clearly to the fact that in order to maintain relevance in a changing and increasingly complex world, African business schools should be looking beyond the here and now and focusing on solving local problems as well as big-ticket, future-focused issues, such as sustainability, climate change, addressing poverty, and tackling corruption. Several commentators raised the importance of incorporating teaching around the SDGs into how companies are advised, to help them:

to be purpose driven and go beyond just maximising profits. We tell them that successful businesses or business that are going to succeed in Africa in the long term, must have at least two engines: an economic engine and a social engine. And both engines must run simultaneously.

One commentator raised the point that African business schools are largely not sitting at the table when it comes to participating in collaborations, such as the Impact & Sustainable Finance Faculty Consortium (a network of about 85 global business schools teaching impact

investing in sustainable finance and innovative finance), despite having 'the most exciting impact problems' and the fact that 'ultimately, the progress towards the SDGs impacts on the quality of life of Africans'.

Being relevant to the youth and entrepreneurship:

While there was criticism from the commentators that more could be done to shift the mindset around the SDGs and their impact on Africa, it was widely felt that when it comes to the youth and entrepreneurship, 'there's no graduate business school that doesn't have a sense of that problem and the implications, and the opportunity cost of not solving it'.

Recognising the potential of the post-independence generation to affect political and economic change across the continent, several commentators noted that a tendency to focus on theory at the exclusion of practical business education was holding back young graduates from making a meaningful dent when it came to profound issues impacting the African continent, such as poverty, corruption and unemployment.

To truly tackle these wide-reaching challenges, one commentator noted that the younger generation needs to be equipped with more than purely academic thinking:

I have always said that Africa is the continent of the 21st century ... in 2100 Africa will be completely different and by that I mean much, much better because of the growing, young, entrepreneurial population. But how is this reflected in our curricula? It's not a theme, it's not a direction that is properly integrated into the curriculum.

Similarly, when it comes to building entrepreneurial know-how and capacity, it emerged strongly that would-be entrepreneurs require not only the necessary skills to run businesses, but also 'access to funding and hand-holding them, mentoring them ... even if they employ three, four or five people that is helping with unemployment and the economy'.

Several business school deans pointed to the establishment of enterprise development centres, whose impact could be measured by how many participants went on to succeed, grow, employ more people, and mentor others. Nevertheless, at a programme design level, one commentator criticised how little entrepreneurship was reflected in African business schools' curricula, noting: 'It's not a direction that is properly integrated into the curriculum.'

Systemic Impact

While the social impact dimension had the potential to roll over into a broader, systemic impact, the qualitative analysis raised five areas in which African business schools could have an immediate and multi-pronged impact at a country – and possibly continental – level. These included becoming involved in **envisaging and developing a country's entire educational ecosystem** from primary to tertiary; finding ways to **influence policy**; **taking on the role of an advocate for change**; **working to capacitate leaders across society**; and **ensuring that business ethics are taught**. Many of these areas of potential impact would involve African business schools stepping out of the confines to which they are traditionally limited and recognising that business and economic success hinges on supporting functioning societies for all.

Envisaging and developing a country's entire educational ecosystem:

Several commentators raised the point that the quality of the entire educational ecosystem across Africa had a ripple effect on the quality of candidates looking to access business school education:

I think that we're starting to see the decline in the educational standards, therefore – certainly in my country – we are pulling from a pool of people who, in the majority, have accessed a lower quality of education than previously. Therefore, one of the ways that business schools can really have impact is what people get taught when they are in school, and how are they taught.

Influencing policy and advocating for change:

It behoved African business schools to determine how they could impact educational standards – be it through running social responsibility projects or at a more strategic level seeking to influence policy and advocate for change. A telling comment was:

I've always believed that policy must be based on research. And that's where business schools come in. So, what is it that we are researching that provides the evidence that can persuade policymakers to look at this?

Teaching business ethics and seeking to capacitate leaders across all areas of society:

The view raised, was that while 'a business school that doesn't have academic excellence is really not fit for purpose', in the context of Africa, it is also important to be a change agent. 'It's got to be focusing on changing society and individuals for the better.' This translated into tackling endemic issues of corruption and maladministration across both the public and private sectors by teaching business ethics and seeking to capacitate leaders across all areas of society, such as public servants, business people, and leaders in key institutions like social organisations and non-profits. The need to support leaders in the public sector was highlighted by several commentators, with some noting that there is 'now talk about developing an executive programme for the public sector, at a very senior level and middle management level'. Such a move would make it easier for different strata of society to engage and collaborate, simply by helping disparate parties to better understand one another, while supporting the creation of 'competent and dynamic governments'.

Again, this shift in focus would require African business schools to really interrogate their future role and scope of impact, noted as follows:

Most times we have a school of business, and then we have either a school of public policy or a school of governance. It's time we started to think about a nexus of both. What can we, as business schools teach, so people in public service can understand what those issues are ... or sometimes there's a lack of understanding, but there may be political or lack of will to be able to implement. There's scope for us to bring in policymakers.



Several commentators called for a 'module on the continent', which embeds a 'sense of purpose for this continent'.



Strategic reinvention: a proposed action plan

Based on the areas of direct, social, and systemic impact, the insights gathered from high-level commentators yielded a number of potential strategic shifts that African business schools could incorporate into their long-term plans to ensure relevance and to enhance current and future impact. These dimensions are presented in the form of an African Business School Impact Action Plan, which should be considered in line with each institution's strategic long-term vision and purpose, as well as the country and context in which it operates. While this plan of action is by no means exhaustive and additional research may well unlock further avenues for development, the qualitative and intuitive analysis undertaken points to a budding agreement on how to amplify impact among key players in the African business school space and supporters thereof.

The African Business School Impact Action Plan turns the spotlight on nine core areas which, if executed in concert, have the potential to radically change the face of the management education across the continent. These areas are:

1. Apply mindful evolution strategies;
2. Ensure context, country, and continent relevance;
3. Build regional cooperation;
4. Maintain a global outlook;
5. Consider future and unfolding contexts;
6. Deploy deliberate and innovative interventions;
7. Support greater autonomy and independence;
8. Engage with business and society; and
9. Develop world-class, credible faculty.

The African Business School Impact Action Plan

Figure 2 visually presents the envisaged African Business School Impact Action Plan, which is subsequently explicated.

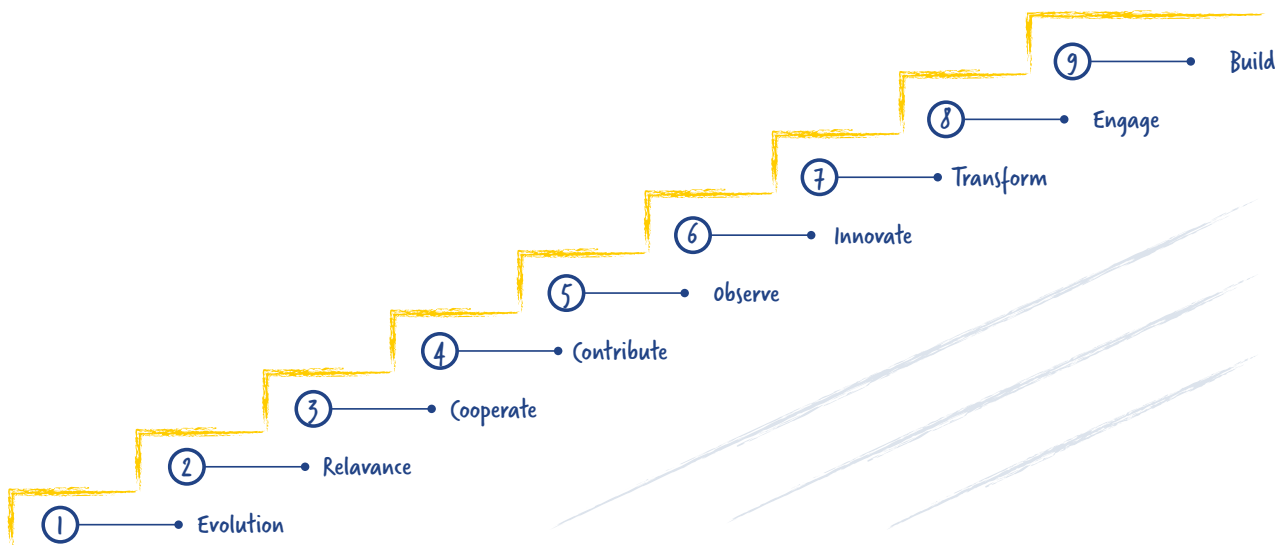


Figure 2: The African Business School Impact Action Plan

Nine noteworthy core areas for consideration

While all inputs were valuable in building this action framework for the envisaged African Business School Impact Action Plan, various noteworthy points have been singled out per pillar. These points are outlined below.

1. Evolution: apply mindful evolution strategies

For decades, business schools around the world have had a monopoly on business education. Now, accelerated by COVID-19 and the disruption caused by digitalisation, new players are emerging in the form of online and tech learning platforms.

While the choices for students are seemingly endless, business schools around the world are pausing to reflect on what it means to be relevant and what role they must now serve in society. African business schools are no different.

Recognising that governments alone cannot solve the myriad social problems facing any country, it is increasingly clear that business

cannot sit on the sidelines; it must play a stronger role in solving critical problems. This also requires business schools to reflect on their educational offerings, the focus of their research agendas, and the type of leaders they seek to develop, as indicated in an interview:

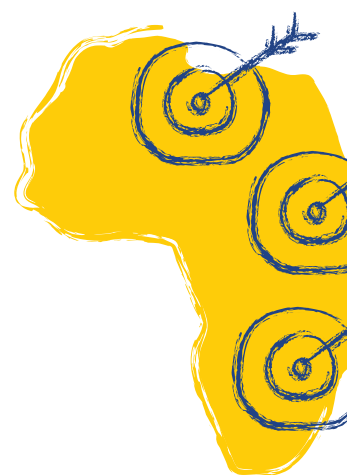
I think business schools are being forced to evolve. You see a lot of them doing a lot more research now, to connect with the industries. But I don't care what the US and UK [United Kingdom] schools are doing. We should be doing what is right for us. We can lead. We don't have to take trends from the West, or from the North. We know how to identify what's wrong or what's right, and we can fix it. They can learn from us as well.

2. Relevance: ensure context, country, and continent relevance

The ultimate goal of many commentators was to see a more united Africa, with greater collaboration and cross-border support. **Commentators roundly agreed that African business schools first need to 'understand their local communities, the individual communities that they serve, the country that they're serving in, and then the continental perspective'.**

At an individual country level, the words of management expert Peter Drucker certainly hold true: namely that culture eats strategy for breakfast (Guley and Reznik, 2019). Therefore, it was noted that business schools in Africa should begin their self-reflection on impact by understanding the context in which they operate. Only then will they be 'ready to share and get exposed to other cultures'. However, once ready to take on a continental role, the recommendation from one commentator was to collectively undertake an assessment of regional needs and develop that into a continent-wide plan of action.

[African business schools] need to establish a needs assessment of what Africa wants. Every one of those 54 countries has a different context, in terms of economic growth, in terms of the investment in public utilities. But regionally, they hold together in some ways.... The way you build up the schools is to figure out what the needs are in those regions, and regions differ.



3. Cooperate: build regional cooperation

Regional cooperation represented for many commentators an important goal to be attained. **Strong, globally accredited business schools in specific regions would prove transformational and aspirational for other schools to emerge.** One commentator asserted:

The important thing in Africa is regions ... and if the regions are important, then the schools within that region should collaborate. They should be working together in sub-hubs, not simply saying they are competing with the aspirational schools.

While recognising that healthy competition within countries and regions was both inevitable and motivating, several commentators noted that there is:

room for more pan-African partnerships, relationships, ventures degree programmes, where a school says, we can do this, but we can't do this, so we need a partner to help to help make this happen. It's really the perfect landscape to see some of that.

One suggestion for a model that Africa might like to adapt to its own needs is the Erasmus programme in Europe, which is an initiative that has been running for over 30 years and has provided opportunities for more than four million Europeans to study and train abroad. The Erasmus+ extension expanded the programme beyond students to include professors and professional staff (European Commission, 2017).

I think there needs to be an African Erasmus project, but called something idiosyncratic to the continent. Students ought to have that opportunity for exchanges, as should professors, as should staff, to a different country across the continent, wherever the opportunity resonates most with that learner, or that professor, or that staff person. I think, and the European model is magical ... it's just a cool programme that has been sustained across the EU [European Union] for over three decades now.

4. Contribute: maintain a global outlook

This pillar offered one of the strongest areas of criticism of current African business schools. **Several commentators slated institutions across the continent for failing to equip African MBAs with a better global context, by 'looking at other post-complex societies and how they improved' and recognising that 'we can't sit on our laurels, we have to be globally competitive'.**

Much like the implications of the African Continental Free Trade Area should be an active inclusion in any African business school curricula, so too should trade with key partners like the European Union, China, and the US be tackled through courses specifically designed to understand the implications for cross-border business.

Another commentator noted that if African business schools are to produce globally competitive graduates, it is critical that a global outlook is not abandoned. Nevertheless, for this to happen, serious attention must be paid to global rankings.

Talking specifically to South Africa's institutions, arguably among some of the most successful on the continent, one commentator warned:



The rankings are moving backwards. And we're ranking because we are not conforming to the reporting concepts that some of our Western and Eastern counterparts conform to, and that's because, again, we might be rejecting colonialism, we might be saying we're ploughing our own furrow, our own field. But I think there's a lot to be said for being globally relevant by conforming to the accreditation, but also the rankings, because rankings attract international students and international organisations to then recruit from those institutions of excellence.



5. Observe: consider future and unfolding contexts

Strategy, one of the cornerstone offerings of business schools around the world, is not just a business imperative, but an important focus for the very institutions that teach management education to the world. The African business school deans interviewed openly discussed their strategic plans to develop 'credibility as a strong brand' and 'use it effectively to drive economic development'. Linked to the global outlook point already raised: **areas of focus for some schools centred on gaining international accreditation, engaging more with industry and alumni, and trying to 'put the business school on the map'.**

Another view that links to the evolution of business schools concerned the strategic intent of these institutions:

We call them business schools, but actually they should be called schools for management. Because management is about the three sectors: business, government and civil society. And all three of them have to work together in collaboration. So, it's about management of the trisector.

6. Innovate: deploy deliberate interventions

The ongoing focus on innovation is both necessary and inevitable for African business schools, given the growing impact of digital tools, online education, and a shift away from bricks-and-mortar institutions towards technology companies (Walsh, 2020) offering micro-credential and flexible bite-sized courses (De Novellis, 2021).

While business schools grapple with the right balance between physical and digital world solutions, and how the exact blend, shape, and form will be like in the future,

there was widespread acceptance that digitalisation is here to stay.

In an African context, this supports the type of digital natives moving into university age, most of whom will be accessing this information 'by mobile, not by laptops or desktops'. The format and platforms on which educational offerings are presented is just one consideration for African business schools, the other points to challenges around IT infrastructure and connectivity in some countries and regions.

7. Transform: support greater autonomy and independence

Numerous commentators on the ground in Africa had a lot to say about the typical university system that 'can frustrate the growth of a business school'. Some of the feedback from the commentators included the following:



I strongly believe that business schools are a breed apart, an entity in their own right. Yes, they may well be units within a university, but the aim and thinking is totally different. The culture and approach, and the problems are totally different, and I think it needs to remain like that. Universities tend to be compliance-driven institutions ... they tend to be not-for-profit organisations and they have that kind of mentality.

In a business school, you need to be wealth generators, wealth creators in the broadest sense.... Take that aspect away and we just become another department within any university.

The call for greater autonomy for African business schools was linked back to the importance of attracting top faculty and how that is aided by using different salary and reward structures to traditional universities, and to make more agile decisions in line with the fast-moving needs of business and economies. That said, a commentator noted that by virtue of being associated with recognised universities, many African business schools gained legitimacy, which they might not enjoy were they fully autonomous.

8. Engage: engage with business and society

Without open dialogue and engagement with business, society, and government, the consensus was that business schools in Africa would always be behind the curve in terms of needs and current trends. Therefore, ongoing opportunities to engage were seen as critical by many commentators. The European Foundation for Management Development's (EFMD's) Excellence in Practice Silver Award winners for 2022 highlight the value of collaborative projects and programmes between business schools and business, showing just how impactful client-supplier partnerships can be to address challenges in the areas of organisational, talent, leadership, and ecosystem development. Of the 2022 Silver Award winners, Standard Bank and Henley Business School Africa walked away with the laurels for a talent development acceleration that involved 'eight other industry-leading providers and 11 internal executive experts' and 'created a symphony of learning that echoed across 14 African countries' (Gregoire, 2022).

One suggestion to further break down the barriers between business, society, and academia was to create pan-African partnerships, themed business school competitions, and collaborative efforts ranging from internship and employment opportunities to hosting regional workshops and discussion forums to engage across borders with experts from business, government, society and academia. As one commentator put it:

One of the strengths of business schools is their convening paths, so we can convene key players ... convey round-table conversations, present the research and then see whether that can form the basis to influence policy. I think that will have a much wider impact than what interventions we choose to do, either on our own or through alumni.

However, for such an approach to work, it was critical that business schools fully appreciated that they were not able to do this alone. They too need to engage across all aspects of society:

Business schools need external support if they are to position themselves at the centre of the national conversation. However, it is essential that egos are left at the door and an acceptance is baked in from the beginning that input is likely to be both disruptive and constructive.

9. Build: develop credible faculty

The final pillar, and perhaps one of the most important for any effective action plan, must be attracting credible faculty who are 'respected and seen as experts in their own field'.

The depth of any African business school's faculty speaks directly to the direct impact areas of quality education and output, be it the calibre of graduates or the level of published research.

This connects back to international standards and accreditation. Moreover, it requires being serious about global perceptions of a country:

To really attract world-class international students ... that needs rankings, ratings, and attracting world-class academics. But you are going to struggle to attract world-class staff into a volatile country – a lot of investment decisions were reversed on the back of [the July 2021 riots in South Africa], on top of your natural disasters, the floods and fires. South Africa is not a dangerous posting, but it increasingly is and you are going to struggle to attract world-class talent.

The role of business school associations

Central to the successful adoption and implementation of the **African Business School Impact Action Plan** is the role of various business school bodies and associations active in Africa, including the Association of African Business Schools (AABS), the Association to Advance Collegiate Schools of Business (AACSB) International, EMFD's European Quality Improvement System (EQUIS) accreditation, Business Graduates Association (BGA), and the Association of MBAs (AMBA).

As an indication of the increased activity of business school associations in Africa in recent years and the importance of aligning African business schools with global standards, it is notable that, in 2021, Henley Business School Africa became the first business school to receive accreditation by the AABS, a quadruple accreditation joining the school's existing accreditation from AMBA, EFMD, and AACSB (CHRO South Africa, 2021). UCT, GIBS, Stellenbosch, with AUC in Cairo are the 'African-born' institutions that have achieved the AACSB, AMBA and EQUIS troika, while in 2021, the North-West University Business School in South Africa was the first institution in Africa to receive accreditation from the BGA (eNCA, 2022).

Commentators recognised how bodies like those highlighted above as well as the likes of the Global Business School Network are making strides to improve the impact of business schools in developing markets through fostering collaboration, networking, and the sharing of knowledge. Furthermore, commentators noted that central bodies, such as the AABS, have an even more influential role to play in embedding issues like autonomy and sustainability into accreditation and working at the intersection of business and academia to ensure that business school graduates are equipped with relevant skills to ensure absorption into businesses. Other comments and suggestions directed squarely at the AABS by commentators included:

When I look at what AABS is doing, they have their annual event, sometimes they have workshops to train faculty on writing case studies and the like, and in 2021 they started the Deans and Directors one-day forum. But that's about it. They are not as active ... let's have regional workshops, training faculty and promoting collaboration, about how to write proposals to land grants, research.



We can have those workshops more. We need to provide opportunities for business schools to work together to be able to realise more impact.

AABS could be the platform inviting other schools to work together to get the funding. It's not that AABS can do it alone, by the way.

The board of AABS should focus on a theme it promotes, like the impact of African business schools on SDGs and focus on that for a year or two and see what is the impact. And then we move on to something else. That way we could publish an annual or biannual report on the role of giving back and the role of African business schools in serving societies.

If we business schools would always put AABS in the loop, that will encourage AABS. AABS should be the umbrella where we all operate. It's up to AABS to decide where they want to position themselves.

Equally, there was frustration with the internationalisation agenda of global business school bodies, some of which (e.g., the EFMD) base 'around 80%' of their accreditation criteria on internationalisation. This was seen as holding Africa-focused business schools back and driving institutions on the continent to partner abroad rather than within the continent.

Many years ago, when we first decided to try for accreditation, it was an uphill task just trying to get them [international business school bodies] to look at Africa. And, by the way, South Africa was not considered so African, but if we look at the rest of sub-Saharan Africa and North Africa, it was hard. Because of the global financial crisis, and declining growth in other regions, they started looking for areas of growth, and Africa and Asia came up, and business schools followed the trend and associations and business schools were looking at those places. In some cases, change has been slow.

An area in which associations could play an important role in facilitating the sort of pan-African collaboration called for in the African Business School Impact Action Plan is in creating the landscape for cooperation between countries and within regions.

This was achieved following the 2020 Abraham Accords peace treaty between Israel, the United Arab Emirates, Bahrain, Sudan, and Morocco by the AACSB, when the association brokered relationships between members across these borders. The process began with student and professor exchanges and collaborative research. This facilitation role could lay the foundation for future regional relationships and possibly an African Erasmus programme.



Central bodies, such as the AABS, have an even more influential role to play.

Conclusion

This white paper is the first step in a critical, continent-wide change process envisaged for business schools. By identifying and categorising the pillars of potential impact and the strategic intent that must be harnessed to deliver on those desired outcomes, it has been possible to create a shared framework for discussion and collaboration.

The next step is to open the door to stage two, which requires delivering on the insights shared. This will take a bold commitment from deans of African business schools; educationalist, business, and civil society organisations, and institutions like the AABS. Action is often where Africa lets itself down. Too often, grand plans and ambitions wind up in what English essayist Augustine Birrell termed 'that great dust heap called "history"' (Safire, 1983). As one commentator said: 'We need to be critical, but we also need practical solutions.'

Shifting academic institutions is, as one commentator observed, not a swift process, but external and internal forces are currently conspiring to drive an evolution that every African business school should be aware of. The scope of the changes facing the sector are vast, but should be undertaken as part of an incremental process, building momentum, enthusiasm, and success through small wins that ultimately yield big results.

Most importantly, change will require proactivity and positivity, discipline, 'knowing how to cycle spot and how to overcome biases', as well as 'some guts from the top' to drive far-reaching shifts.

In this process, the African business school dean is a pivotal player. One commentator concluded: **'A dean that agrees with the last faculty member in their office is not a good dean. It takes honesty and integrity to come up with solutions that are balanced.'**





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Amplifying the impact of African business schools



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How machine learning is transforming revenue assurance into a real-time business tool

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Trillions of megabytes of data are produced on a weekly, daily, and even hourly basis by companies across the globe. This wealth of big data holds vital nuggets of information about business processes and practices, customer behaviours, as well as billing errors and leakages – information that is crucial for any corporation to have at its fingertips. Yet, even as the digital world continues to mushroom all around us, many organisations still struggle to harness and analyse data meaningfully. As organisations become more complex and unwieldy, relying on traditional systems and highly skilled consultants can no longer be regarded as the optimum way of managing essential processes, such as data management, business assurance, and revenue assurance. Fortunately, the world of artificial intelligence and machine-learning tools offers a glimpse into a more streamlined and effective future of real-time data analytics.



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Disclaimer

Aligned with our mission, 'We build the people who build the businesses that build Africa', we facilitate open, multi-perspective conversations and the generation of thought leadership pieces, such as this white paper. However, the views expressed in this white paper are solely those of the author and not necessarily those of Henley Business School Africa.

Abstract

Business leaders, commentators, and educators agree that the world is increasingly volatile, uncertain, complex, and ambiguous. This is the operating environment that Warren Bennis and Burt Nanus first alluded to in 1985 and to which the United States Army later attached the acronym VUCA. This unpredictable and fast-changing operating environment is, in and of itself, a challenge for businesses, but this reality is being compounded by a widespread and relentless digital revolution, which is transforming corporate entities into increasingly complicated institutions comprising multiple inputs and divisions, all managed by an ever-expanding array of software programs.

Since the 2000s, revenue assurance has fulfilled an important role within telecommunications companies in particular as a way of identifying and plugging revenue leakages. In recent years, revenue assurance has grown beyond billing considerations into an increasingly business-wide function that seeks to make sense of the full range of business operations by drawing on data across the organisation to identify gaps and leakages that impact efficiencies and, increasingly, customer experience. The next evolution in revenue assurance is a clear move towards machine-learning tools that have the potential to drive the profession into an exciting new direction where artificial intelligence and human expertise stand poised to work together to create even greater corporate value.

Acknowledgements

Thank you to Henley Business School Africa for always pushing the research angle, from relevant case studies and articles to white papers, such as this one. The drive to empower digital-savvy delegates and data-wise decision-making is an approach to executive education that can, and should, be widely replicated.

To Amazon Web Services, we applaud you for seeing the potential that lies in developing and exploring emerging futures.

Since 2000, I have been involved in the Helium.AI start-up, a partnership between software development house FuselT and the research hub Infusion. This cross-industry think tank comprises telecommunications, investment banking, retail and business banking, and manufacturing companies, as well as state-owned enterprises, municipalities, and development aid agencies. The resultant machine-learning tool, HeliumStream, entered a proof-of-concept stage in 2022.

The development of HeliumStream has been an example of cooperation and collaboration in action across a variety of sectors that has benefited greatly from the generosity of companies willing to share insights into their own business assurance and revenue assurance journeys, particularly during the developmental phase. On this note, a special thank you to the HeliumStream proof-of-concept clients for their openness to sharing data with the aim of co-finding a better solution.

Thank you to Prof. Alet Erasmus for reviewing the white paper.



Introduction

Nassim Nicholas Taleb (2012), the author of *Antifragile: Things that Gain from Disorder* and *The Black Swan: The Impact of the Highly Improbable*, believes that – contrary to the position taken by financial traders and academics – it is impossible to see the future. The well-respected polymath may not be one for prediction, but he has made a number of insightful comments to support his theory that ‘antifragile’ businesses do more than stand resilient and unbending in the face of change. These companies learn from the past and from their mistakes and, armed with these insights, they strive to get better (Taleb, 2012: 17).

Taleb has also sent up flares about the role of data in our modern world, noting that: ‘More data means more information, but it also means more false information’ (Taleb, 2012: 431). In the world of revenue assurance – which is increasingly becoming holistic data management/business assurance – data has the potential to be king. That is, if processes and tools are in place to sift through the deluge of information collected by businesses on a daily basis, data anomalies

can be dealt with and nuggets of information can be extracted that hold real value for organisations. Today, that means turning to the processing power of digital technology and automation.

According to Eric Priezkalns, co-author of *Revenue Assurance: Expert Opinions for Communications Providers*, revenue assurance is entering a new and exciting period of expansion. Priezkalns shared: ‘It [revenue assurance] looks at revenues, costs, margins, and how well you utilize your assets and how well your business is executing against its strategic goals. It’s also doing that with the intelligence that comes from real data.’ (Baker, 2011a).

While Priezkalns warned against splitting the profession into highly skilled experts versus automated analysis tools, he noted that there is scope for using both approaches in tandem, which would keep the ‘pioneering spirit’ of old alive, while still allowing technology to ‘be the saviour once again’ (Baker, 2011a). As Priezkalns stated:

Maybe that means we should go back to where we were in the beginning: go back [to] the time when revenue assurance was a place where people were comfortable mixing up people skills, process skills, and analytic skills – and now we can throw more technology into the mix too.

(Baker, 2011a)

What is revenue assurance?

Revenue assurance is a proactive business support system practice that ensures 'all billable transactions are executed, rated, billed and collected correctly in a timely manner. In short, this is the assurance that maximum revenues are realized and that a product, customer, or operation is not losing money' (Gajbhiye, 2013: 34).

At any point in a corporate transaction trail, the potential for revenue leakage exists – from customer service to product development as well as collections (Gajbhiye, 2013). Where revenue assurance steps in is to expose and detect any leaks across the revenue chain, allowing organisations to lower their own costs and increase productivity by plugging these leakage holes (Gajbhiye, 2013).

Leakage: the unseen corporate dilemma

In 2019, global professional services firm EY estimated that companies lose between 1% and 5% of earnings before interest, taxes, and amortisation, because of revenue leaks caused by poor contract management and payment follow-ups. Offering a revenue leakage service, EY claims to trace '90% of the revenue leaks clients themselves cannot find' (Vanderlinden, 2019).

According to EY Belgium consulting partner Nikolaas Vanderlinden (2019), the contracts underlining modern-day business practices are often to blame for leakages, given that organisations today operate in a network economy.

Often, the contracts are the problem, and for all kinds of very practical reasons. It is not unusual for there to be absolutely no contract. It has either expired or no-one in the purchasing department remembers exactly what it says. Amendments have been lost, there are deviating price agreements in e-mails, you name it.

(Vanderlinden, 2019)

The rising number of companies with multiple revenue streams, companies using advanced technology like the cloud and mobile, and the collection of swathes of data to refine and improve the customer experience are driving the growth of the global revenue assurance sector to a projected US\$12.26 billion by 2030, a compound annual growth rate of 10.03% from 2020 (CDN Newswire, 2022). This trend is also being driven by the volumes of big data that companies now generate, but which many are failing to fully exploit to boost their competitiveness (Bean and Gupta, 2021). Legacy companies, in particular, are being urged to make better use of data and technology, such as machine learning, artificial intelligence (AI), and predictive analytics, to drive business change (Bean and Gupta, 2021). In part, this change is driven by better synchronisation of data from across the organisation, better systems for handling large volumes of data, and the use of the right talent and tools for doing so (Preetipadma, 2020).



Figure 1: Drivers of business and revenue assurance
Source: Adapted from Helium.AI (2022)

The role of data management and business and revenue assurance

For years, revenue assurance has been the preserve of specialist consultancies or divisions within established professional services firms, which are staffed by experts in correction and prevention, fraud management, and billing accuracy. According to Priezkalns, 'Back in 2000, there were 10 companies out there selling revenue assurance solutions that more or less did the same thing. And that did wonders for defining and building the credibility of the revenue assurance profession' (Baker, 2011a). The aim of these firms was, of course, to identify revenue leakage across the gamut of billing and accountancy functions from delayed earnings and cash flow to late billing or errors of underbilling or those automated through faults in the company's billing infrastructure (Messer, 2021).

More recently, the term business assurance has begun to muscle out revenue assurance, which emerged in the early 2000s as a way for telecommunications (also 'telecoms') companies in the United States to 'help expose areas of revenue leakage and eek [sic] out additional savings' (Paiva, 2020). The catalyst that necessitated the need for revenue assurance was the US Telecommunications Act of 1996, which saw the telecommunications industry develop into a 'complex network of competitive players of all shapes and sizes', each with their own billing system (Paiva, 2020). During the boom days of the late 1990s, revenue leaks were of little concern to an industry swimming in money, but with the bursting of the dot-com bubble in the early 2000s, 'the focus of telecom providers changed, and suddenly, finding money that had been left lying around during the rush for customers became critical to staying in business. This was the birth of revenue assurance ... in the telecoms industry.' (Paiva, 2020)

Since then, with the rise of digital, revenue assurance has become a must for any company running a number of legacy billing systems, having to reconcile customer charges, and needing to navigate complex revenue-share models and contracts (Paiva, 2020). As such, talk has turned to the term business assurance which, according to Sérgio Luis Silvestre, vice president of marketing at a revenue assurance software firm, is focused on taking 'revenue assurance, fraud management and other control areas tools to the next level' and 'using systems to improve operational effectiveness and [to] manage risk' (Baker, 2011b). Nevertheless, the main goal remains the ability to figure out where leakages are and to determine what can and cannot be plugged to stop the outflow. The evolution into business assurance and data management, with its 'company-wide, holistic approach towards financial health that goes well beyond the billing domain', touches more on client experience, marketing, and networking operations (Paiva, 2020), making the universe of big data feeding into the system even more multifaceted and complex.

Example: revenue assurance in action

A business signs a service-level agreement (SLA) with a new supplier and, from this, a contract is drawn up. Linked to the SLA on the company's system would be a purchase order number for each invoice issued by the supplier and then a payment. However, not all contracts have the same conditions and are increasingly being tailored to specific requirements. These differences allow for mistakes to creep in, which could lead to revenue holes. Sometimes these mistakes can be measured in cents, not rands, but collectively they add up.

If you imagine a corporation as a bucket into which payments are made and bills are paid, then revenue leakage is the hole – or holes – in the bucket. What makes revenue assurance such a time-hungry process is that it is almost impossible to know exactly where these holes are, because there are so many areas for potential leakage. Imagine you are a large, global telecommunications company with business operations across multiple borders. Imagine a single mistake is made on a number of client contracts – unchecked this could add up to millions a year in lost revenue, unless the problem is found and rectified.

What does the future hold?

Since its heyday in the early 2000s, revenue assurance has been the preserve of highly skilled professionals working for big consultancy firms (Baker, 2011a). It was a demanding, lengthy, and costly process based on man hours worked.

While the practitioners tasked with undertaking these massive assessments are highly skilled, they do miss things. This has nothing to do with competence, it is simply that the human mind cannot configure the sheer number of business rules in operation, or how many of these rules start to conflict with one another as layer upon layer is added to the mix. Today's world of business is increasingly complex and, quite simply, the human mind alone is insufficient to figure out all the leakages in a large and complex

organisation, which continues to lose revenue due to unstemmed leakages that human interventions cannot detect (VanillaPlus, 2017). Fortunately, machine learning and AI algorithms are entering the world of data management and business and revenue assurance as tools for spotting and plugging leakages in big multinationals and smaller companies.

Dr Gadi Solotorevsky, an expert in the fields of revenue assurance and AI, believes machine-learning tools hold the key when it comes to dealing with increasingly large and complex data pools, but he does not feel that the use of these new technologies will entirely replace the need for human experts. He added:

Instead, we should focus on using AI and [machine learning] techniques to assist human experts and relieve them of some of their workload – and we're already doing it.

The role of data scientists in the [revenue assurance/fraud management] team will be to create and adapt the [machine learning] toolset to the realities they face. AI and [machine learning] will be used both independently to detect new issues, and in combination with the traditional rule based techniques.

(VanillaPlus, 2017)

Already, the most recent business assurance survey from the TM Forum (2022), a global alliance of companies working together to 'digitally transform and thrive', shows that 46% of respondents in 2021 had incorporated AI and machine-learning technologies into their businesses, up from 10% in 2019. An additional 32% were considering adding these tools to their business assurance function in 2022 (Solotorevsky, 2022).

However, there is still scope for improvement and the further development of these machine-learning tools. The same TM Forum survey noted an increase of almost 50% in revenue leakage between 2019 and 2021. As per Solotorevsky (2022), the unprecedented pace of change in the world, which is being driven by digital uptake, is likely behind this surge:

My personal opinion (which is by no means the only one) is that it's the result of a perfect storm between the mass 5G rollout and the COVID-19 pandemic, which drastically accelerated the pace of digitalization and self-service usage, resulting in organizations needing to make massive and rapid changes to their processes, business models and systems.

(Solotorevsky, 2022)

This underlines the importance of supplementing existing traditional revenue assurance methods with real-time digital machine-learning solutions capable of speeding up the process and dealing with the wealth of data that must be understood.

Definitions:

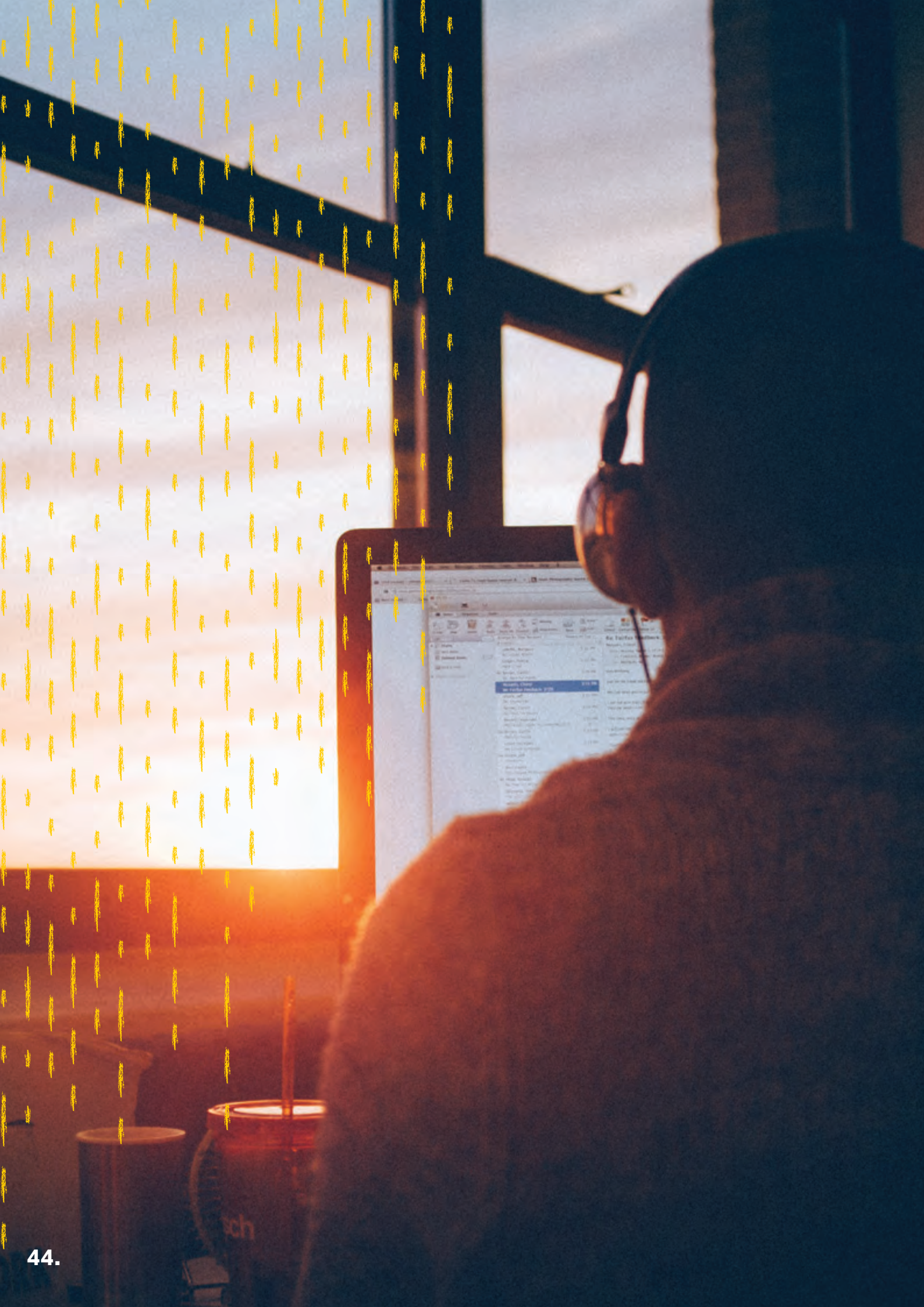
artificial intelligence and machine learning

While it is not uncommon to hear the terms machine learning and AI used interchangeably, there are distinct differences. Broadly speaking:

[AI] refers to the general ability of computers to emulate human thought and perform tasks in real-world environments, while machine learning refers to the technologies and algorithms that enable systems to identify patterns, make decisions, and improve themselves through experience and data'.

(Columbia Engineering, 2022)

Therefore, machine learning is a 'subset of the broader category of AI'
(Columbia Engineering, 2022).





Machine-learning tools in action

A number of real-time, analytics-based revenue assurance applications already exist in the global market, including Ericsson's AI-powered Operations Engine solution (Singh, 2020). Another example of such an application is US customer experience company VertexOne, which worked with DC Water in the District of Columbia to implement a new system that led to a 14% reduction in billing-related customer calls and the 'lifetime savings (seven-year forecast) that resulted from implementing this new system is estimated at over \$22 million [US dollars]' (Business Wire, 2019).

Similarly, African and Middle Eastern telecommunications giant MTN Group recognised the need for a robust revenue assurance approach back in 2013, when it first established a small team to conduct a 21-country financial risk and maturity assessment to quantify leakage losses across the business (Baker, 2018). In a 2018 interview, Anthony Sani, then executive of group revenue assurance and fraud management at MTN Group, explained how 'in five years' time MTN took its [revenue assurance]/fraud assurance from very high leakage to below 3% per year' by adding exponential technologies (AI, robotics, and [machine learning]) in its [revenue assurance]/fraud assurance program' to 'measure the impact of all risks from product development, sales ordering, provisioning, network usage, rating and billing collections, revenue recognition and partner settlement, which covers our end-to-end revenue streams' (Baker, 2018).

Solving for real problems

Data management, business assurance, and revenue assurance machine-learning tools are fuelled by data, but what are the inner workings of this technology and how can these solutions be put to work in the real world? Artificially intelligent data analyst tools can address the hyper customer-centric organisations' need for both big data analysis and commercial insight. Such tools work by scanning big data lakes to find losses in revenue, while also flagging data and business risks (see Figure 2). Ideally, they should be file and platform agnostic and offer real-time insights (HeliumStream, 2022).

Broadly speaking, these tools start by extracting a company's data into a secure data lake. From there, they start categorising the information based on predetermined business rules that help the tools pick up all anomalies and leakages in a given dataset. Having identified the 'holes' in the organisation's bucket, the company is better able to plug these leakages.

Each organisation will find unique ways in which to leverage the insights that emerge when using a machine-learning tool designed to assist in the data management and business and revenue assurance journey. For instance:

- A company would be better able to track, and solve, the challenges associated with moving from vendor to in-house and in-house to vendor development.
- A bank could plug leakages by verifying the interbank settlement fees calculated and charged by the likes of BankservAfrica. Currently, banks rely solely on input from automated clearing houses like BankservAfrica, rather than calculating interbank settlement fees themselves using their own transaction data (BankservAfrica, 2022).
- A financial services institution could analyse if 'split fees' are being calculated correctly when sending foreign exchange. Currently, senders can either opt to pay the full fee or split it with the receiver, but organisations cannot be certain if the split fees are calculated correctly and may be losing revenue.
- A service provider would be better able to swiftly reconcile debit orders collected based on a list provided by corporate customers, including tracking funds received, bounced debit orders, and instances where details are incorrect.

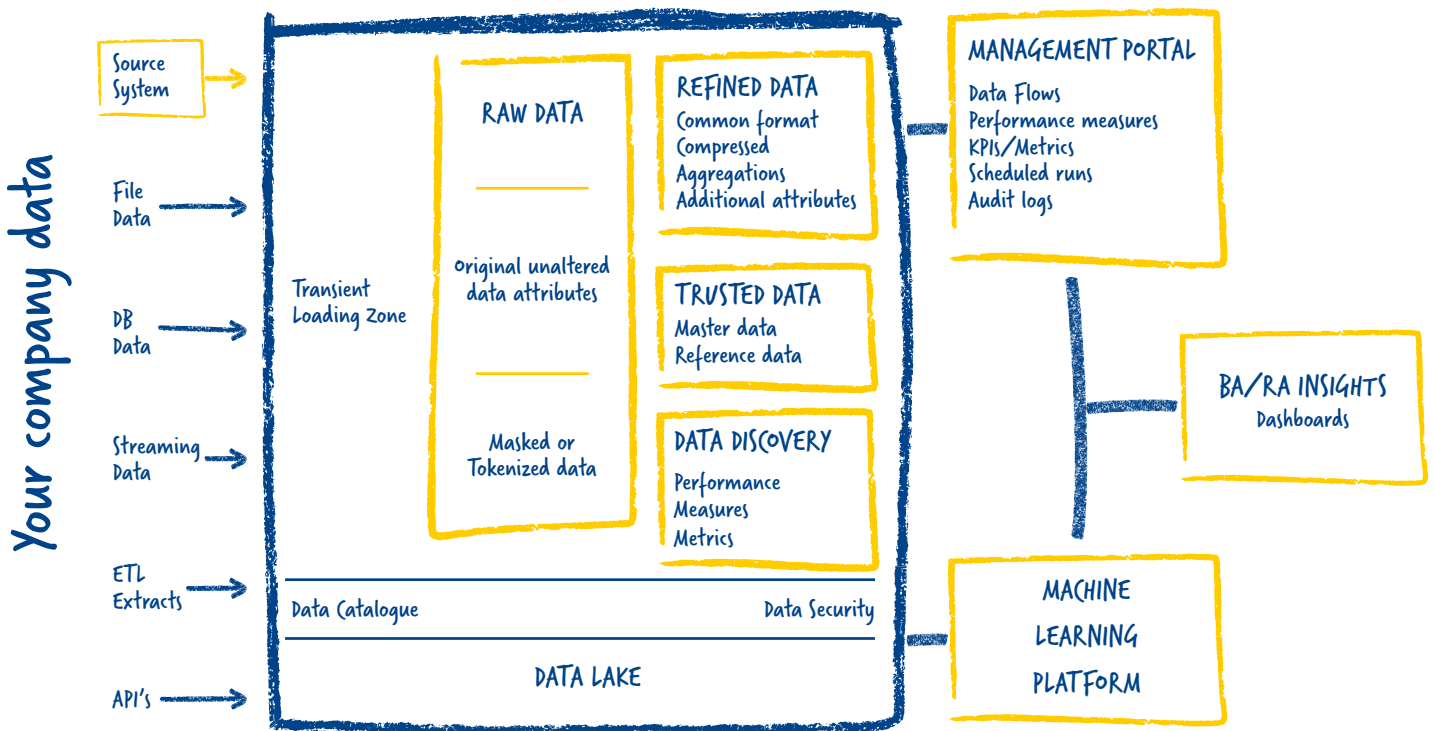


Figure 2: The HeliumStream process
 Source: Adapted from Helium.AI (2022)

Complex government? A real-time, hands-free solution

A key area of potential focus for machine-learning tools in the data management, business assurance, and revenue assurance space lies in the realm of e-government, which stands to benefit from the ability these emerging tools have to distil highly complex inputs into user-friendly formats. As municipalities become more reliant on collecting revenue and managing their own finances across a complex ecosystem, having access to tools that can identify revenue leakages will become increasingly important.

At a global level, it is notable that Amazon Web Services (2022) has launched a cloud-based public-sector tool for state and local governments, which includes data collection and processing as well as analytics, including business intelligence and machine-learning tools. As municipalities move increasingly towards an e-government model, it stands to reason that tools capable of measuring the efficiencies within a particular municipality will become more influential. From measuring how much power is generated to the amount distributed, and then tracking the funds coming into the city coffers, there is scope for tech-enabled revenue assurance tools to identify and plug leakage holes as well as support quicker and less costly audits.

Areas of potential focus that would benefit from tracking at a municipal level include:

- Government-subsidised Reconstruction and Development Programme (RDP) houses from the approval phase through to construction, allocation, and transferring the deeds to the new owners. Challenges in addressing the backlog of RDP housing exist across all nine South African provinces, with Gauteng alone facing a 1.2 million RDP housing backlog and many people 'still on the waiting list to receive their houses after registering with the department of housing in 1996 and 1997' (Mail & Guardian, 2022);
- Driving licence applications, temporary driving licences, and learners' licences to eliminate those who are barred from getting a licence, and then monitoring the issuance of the licences;
- The quantity of water and electricity produced, dispersed, invoiced, and paid for; and
- The debt collection efforts of municipalities as well as monitoring the vendors used to collect these outstanding debts.

Potential for business school applications

Another potential area of development lies in academia and executive education. As part of Henley Business School Africa's drive to ensure its students are able to navigate this data-enabled world, the business school is currently exploring the use of machine-learning revenue assurance tools to support action learning projects; thereby allowing students to run data from their selected companies through the tools to identify leakages. This approach gives students scope to solve actual problems. In the process, the student becomes data-wise and the company in question is exposed to the value of data-wise decision-making. The company would be provided with a detailed assessment addressing an actual problem facing the business and potentially impacting its strategy and matrix, and offering tangible and useful insight around potential solutions.

Harnessing machine learning in this context would also help to ensure that academia – and, in particular, business schools – gather information about actual pain points facing businesses, while applying innovative new methods for identifying and addressing these challenges. The academic application would also have practical benefits for leaders taking part in executive education programmes, who would be able to take these tools and learnings into their workplaces.

Conclusion

Circling back to the work of Taleb, specifically his anti-fragile insights, it is clear that the introduction of digital or machine-learning tools to help organisations with the process of 'fine-tuning their operations' (Power, 2013) and getting the most out of their data to plug holes and leakages is only half the battle won if an anti-fragile ethos is the ultimate end goal. As Power (2013) wrote in the *Harvard Business Review*: 'The danger is that their management approaches cannot sense or respond to shocks. Organisational managers and leaders should be worrying about fragility in the face of such shocks'.

Equally, organisations should be realistic about their ability – and willingness – to take the insights gained from digital revenue

assurance methods and to meaningfully act upon these assessments. The beauty of harnessing AI, such as machine learning, is the real-time input a business can hope to receive. Yet, if the leadership is not willing to act on these red flags with the same degree of focus and timeliness, then the moment could well be lost amidst ingrained fragility and a reluctance to act. However, due to today's machine-learning offering, the option now exists to harness cost-effective, technology-enabled data management, and business and revenue assurance tools. Whether organisations take up these new options boils down to today's business leaders making the right choices for managing a data-enabled tomorrow.

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How machine learning is transforming revenue assurance into a real-time business tool



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Virtual reality

in business education

Louise Claassen

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September 2022



Henley
Business School

AFRICA



Business education, leadership development, and the upskilling of future executives require a constant eye on unfolding trends and openness to incorporating fresh approaches and technologies. As learning moves increasingly into a digital space, technologies like virtual reality are emerging as creative and dynamic spaces in which students can interact directly or participate in creative technology labs that immerse them in practical problems or allow them to experience far-flung ecosystems and cultures.



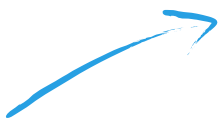
Disclaimer

Aligned with our mission, 'We build the people who build the businesses that build Africa', we facilitate open, multi-perspective conversations and the generation of thought leadership pieces, such as this white paper. However, the views expressed in this white paper are solely those of the author and not necessarily those of Henley Business School Africa.



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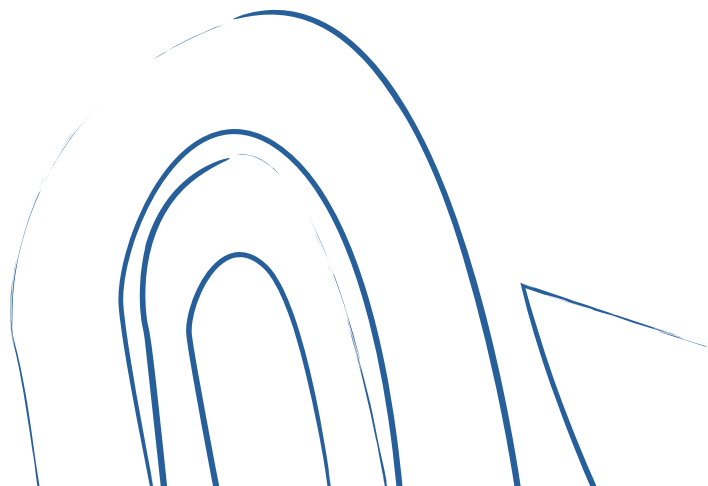


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Abstract

Since the Third Industrial Revolution – the Digital Revolution – started in earnest in the late 1900s, the world has seen a dizzying array of new technologies become part of our day-to-day lives. Changes have ranged from the harnessing of nuclear energy and the invention of the ethernet to the creation of wireless devices, web pages, social media platforms, mobile-phone money services like Kenya’s M-Pesa, and the internet of things. Many of these technologies and innovations have become ubiquitous in modern society. As technologies are absorbed into our thinking and daily reality, new goals and exciting areas of focus emerge and take hold. Virtual reality and the associated world of extended reality are a case in point.

As the current Fourth Industrial Revolution attests, the next frontier for business, society, and educators alike is technology. Digital technology spans a litany of emerging and complementary tools, such as cloud computing and nanotechnology, three-dimensional printing, and artificial intelligence. These technologies are disrupting business, healthcare, government, manufacturing, social cohesion and inclusion, as well as how we learn, connect, and develop. Virtual reality (VR), specifically, unlocks the power of immersive learning as it points the way to immersive worlds – and metaverses – that can be brought to life through its unique capabilities. VR and a range of allied technologies such as cryptocurrencies, non-fungible tokens (NFTs) and blockchain also power the newest iteration of the World Wide Web, known as Web3.

Based on the experiences of the small band of 'explorers' at Henley Business School Africa in Johannesburg, South Africa, this white paper defines the nature of virtual learning tools and explores the potential for harnessing simulated interventions in the business school education space as a way of delivering experiential learning and student engagement. Moreover, this white paper intends to provoke a discussion around how business schools can – and should – embrace VR tools and introduces practical insights that can be replicated within business schools and educational institutions around the world. However, it is important to first become acquainted with the following keywords, relevant terminology, and acronyms that are used when having conversations about the topic:

Keywords

Virtual reality (VR) – Virtual reality involves a complete immersion into a virtual world, which is achieved by using VR devices to shut out the real world (Gupton and Kiger, 2020).

Augmented reality (AR) – Augmented reality refers to the creation of a composite experience achieved by superimposing digital elements onto the real world.

Mixed reality (MR) – Mixed reality involves combining VR and AR with real-world elements.

Extended reality – VR, AR, and MR fall under the collective term extended reality, which ‘covers all of the various technologies that enhance our senses’ (Gupton and Kiger, 2020).

The metaverse – An amalgamation of the words ‘meta’ and ‘universe’, the metaverse describes the virtual world that exists online in a three-dimensional form, which brings virtual and mixed-world realities together using a browser or a VR headset (Ma, 2022).

Web3 – The decentralised, democratic future of the internet that draws in emerging digital platforms and ownership models, such as NFTs, cryptocurrencies, and blockchain (Stackpole, 2022).

Introduction

Several notable trends are playing out in the world of business education: shifting pedagogies designed to grow and develop relevant, socially minded leaders for a changing world (Brown and Crawford, 2021); a demand for individualised and flexible learning pathways (Krishnamurthy, 2020) that support lifelong learning and use digital tools to offer remote learning options (Hammergren, 2021); an appreciation for the impact of experiential approaches in the development of desirable leadership traits, such as adaptability and empathy, as part of an enhanced learning cycle (Richardson, 2015: 109); and of significant interest for this white paper, the adoption of technological platforms and solutions to enhance the learning journey. VR supports all these outcomes. Known as the 'empathy machine' of the emerging tech world (Palmer, 2021), VR has been shown to encourage empathetic behaviour by encapsulating the qualities of presence and embodiment (Shin, 2018).

Technologies, such as VR, have the potential to set adaptive business schools apart from the pack by integrating accepted learning methods such as academic case studies with immersive digital tools that bring innovation to life. Embracing such technology ensures that business school educators are supported in their uptake of innovative technological options in line with institutional innovation. Furthermore, the technology creates a unique and transformative channel for learning that straddles the worlds of entertainment and education to create truly impactful learning experiences that will incite and keep learners involved.

In VR lingo, 'presence' refers 'to the scale of immersion felt in a VR experience. Simply put, presence is achieved when users feel like they're there, wherever that immersive world is' (Oculus Creators, n.d.).

What is virtual reality?

VR refers to a realistic computer-generated environment that is accessed using specialised electronic equipment, enabling users to interact with a simulated three-dimensional reality in a graphic-rich, physical way (Collins, 2022a). The technology has been decried by the likes of former United States (US) Secretary of State Hillary Clinton as 'no substitute' for real people (Fisher, 2015), yet has been embraced by others, such as science fiction film director Brett Leonard, as 'a truly immersive medium ... [that] will only continue to get better and better' (Craig, 2020). Whatever one's view, VR is increasingly carving out a place for itself in the world of entertainment, business, and education. In addition, VR is part of a suite of Web3 technologies that are bringing the metaverse to life.

While the incorporation of VR into real-world experiences and interactions may remind one of science fiction, technology has its roots as far back as the 1960s. The very first commercial VR technologies began to appear in the late 1980s, although they have largely remained the preserve of niche sectors, such as flight and surgical procedure simulations, military training and, more recently, the gaming industry, education, and training (Cipresso et al., 2018). Since 2014, when Facebook founder Mark Zuckerberg bought VR platform Oculus for US\$2 billion (Haselton, 2017), there has been renewed interest in the potential for the technology by

investors and consumers alike, as well as companies like Sony, HTC, and Apple, which acquired the Canadian augmented reality (AR) headset start-up Vrvana for US\$30 million in 2017 (McGee et al., 2022).

AR merges computer-generated data with a real-world environment (Collins, 2022b). Researchers anticipate that some one billion people will be wearing AR headsets by 2030, 'supporting a market worth up to US\$2 trillion in revenue' (McGee et al., 2022).

Despite initial scepticism from some quarters around Zuckerberg's Oculus investment (Haselton, 2017), 'overall spending on AR and VR headsets, software, and services, including purchases by consumers, rose in 2020 to US\$12 billion globally, up 50% from 2019' (Deloitte Insights, 2020: 97). While the global pandemic of 2020 impacted growth, Deloitte Insights (2020: 97) predicted that 'the industry will reach a total of US\$73 billion in 2024, or a 54% annual growth rate between 2020 and 2024'.

How should business schools embrace virtual reality?

Inspiring evidence

In 2021, professional services firm PwC released findings that highlighted the value of using VR tools to support soft skills training, and as a way of helping businesses to upskill employees faster and more cost-effectively. The study showed that using VR enabled learners to absorb information four times faster than they could in the classroom alone, and with four times the focus compared to their e-learning peers (Likens and Mower, 2021). Perhaps more impressive, is that VR learners were 275% more confident when applying newly acquired skills than they were before the learning intervention, and 3.75 times more 'emotionally connected to content than classroom learners' (Likens and Mower, 2021).

(Stern et al., 2021). This sparked the interest of future-focused researchers and advisory firms, such as Gartner, which forecast in 2017 that by 2021, '60% of US-based higher education institutions will intentionally use VR to create an enhanced simulation and learning environment' (Resnick, 2017). While uptake has been behind this projected curve, and 'adoption rates of VAR [virtual and augmented reality] technology for teaching have not been well described across a higher education institution' (Marks and Thomas, 2022: 1288), the enthusiasm for the technology's potential as far back as 2017 is a testament to the potential evident in developing an enhanced learning journey and experience for learners (Resnick, 2017).

US business schools, such as Sloan School of Management at the Massachusetts Institute of Technology and Stanford University Graduate School of Business, have begun deploying VR into their executive education offerings, be it for simulated role-playing exercises or to allow classmates based around the world to engage in a virtual campus space (Childers, 2019). However, not two VR development experiences are the same. For instance, reflecting on INSEAD business school's foray into VR technology



Enthusiasm for virtual reality's potential

Some business schools, notably in the US and Europe, started exploring VR teaching methods before the 2020 global pandemic

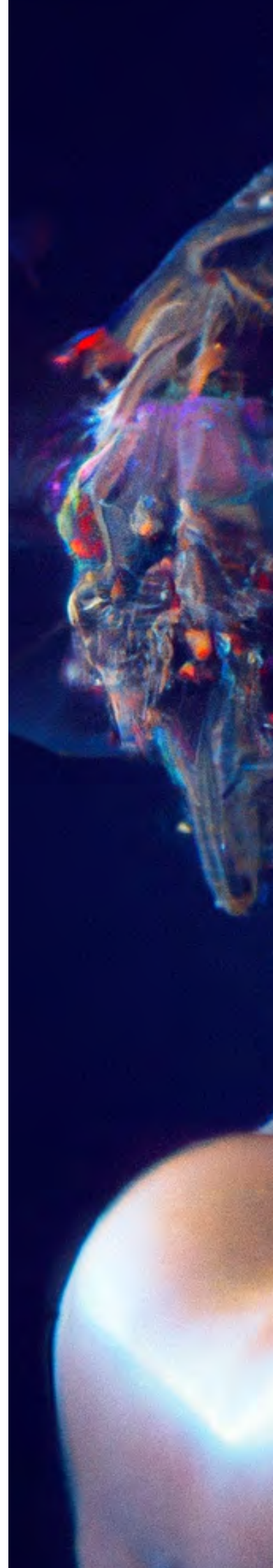
as a learning tool, Stern et al. (2021) wrote: 'We don't envision that VR will replace existing tools and approaches. Rather, it will add a new dimension to the classroom – both virtual and physical – without taking anything away.' The INSEAD experience has leaned towards the use of VR as a storytelling tool to support immersive learning and expose learners to 'exercises that mirror the work environment, geared towards exploring real-world scenarios and outcomes' (Stern et al., 2021). The technology, while not regarded as a substitute for real-life experiences, was regarded as a useful way in which to transport 'participants to unfamiliar locales – an especially useful feat given recent restrictions on international travel' (Stern et al., 2021).

More recently, a 2022 article in the United Kingdom's Financial Times quoted Dot Powell, Warwick Business School's Director of Teaching and Learning Enhancement, on the institution's increased adoption of technologies to enhance the learning experience. Powell noted that learning approaches that simply require lecturers to talk over a slide presentation 'won't be acceptable for much longer', as the appetite for engagement with fellow students and course content continues to grow among students of higher education institutions (Conboye, 2022).

In addition to enabling learners to 'travel' to remote locations, many leading business schools regard the use of VR as a tool for personalising the learning journey (Murray, 2021).



Source: Image created using DALL-E (n.d.). DALL-E is an AI system that can create images and art from a description in natural language.





Henley's virtual reality journey

The beginning

Henley Business School (HBS) Africa's journey into the use of VR as a business school and leadership learning tool began around August 2019. Exposure to the international leadership immersion programmes conducted by HBS Africa in countries as far afield as Kenya, Tanzania, Ghana, Nigeria, Russia, China, the US, and Canada yielded insights into the value inherent in first-hand exposure for business school students from Africa. Aside from network development and cultural exposure, students experienced different business contexts and dynamics in their sector and among leaders, as well as the broad economic, social, and cultural subtleties shaping specific environments. The value of such global immersions has been widely recognised as tools for shaping future executives, business leaders, and entrepreneurs (McLeod, 2018).

Challenges encountered

Nevertheless, these in-country interventions were expensive and at best could only accommodate 20–30 students per immersion. Once on the ground, there were time constraints to consider, which impacted the number of close-up encounters participants could undertake. In addition, the process was often overwhelming for students, who were faced with sensory, cultural, and information overload.

In Africa, where the cost and complexities around intracontinental travel add another layer to be considered, there is the added concern that it is easier to fly to Europe or the US for an immersion, than it is to undertake a programme in an African country, such as Ghana or Uganda. Yet, it is vitally important for South African students – as well as those from the rest of the

continent – to understand how they fit into the broader African context, as well as the opportunities being presented by greater intra-African trade, investment, and cooperation.

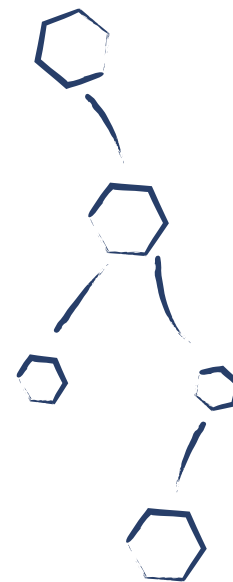
Identifying opportunities

Virtual reality as a possible learning tool

Faced with the growing impact of VR as a business and entertainment tool – as well as an empathy machine capable of transporting users to different spaces with a deep sense of presence and embodiment (Shin, 2018) that amplifies learning – it soon became evident to the HBS Africa team that an opportunity existed to create virtual immersions. Harnessing VR as a learning tool had the potential to create a more democratic and inclusive immersion experience.

Exploring virtual immersions

Initially, HBS Africa's concept focused on virtually transporting students into a different environment, without them having to leave their chairs, which the team referred to as virtual immersions. With this end-game in mind, a small team comprising the writer and her fellow 'explorers', Phillip Mabitle and Siqu Nsele, began to experiment with VR. Armed with some research, a now-obsolete Oculus Go headset, and a 360-degree camera, the Henley Explore team focused its efforts on discovering what existed in the world of VR, exploring how it could be applied in the context of virtual immersion, and producing content for the business school. The team's VR output was ultimately incorporated into HBS Africa's one-year Postgraduate Diploma in Management Practice in Africa (Bizcommunity, 2021 cited in Henley Business School Africa, 2021).



Creating momentum

By the time South Africa went into lockdown due to COVID-19 in March 2020, HBS Africa already had a working group in place and some equipment, and had begun the process of looking for partnerships. Having made contact with Kenyan production company BlackRhino VR, the team found itself in the enviable position of being able to further develop the relationship with BlackRhino VR and its co-founder and managing director Brian Afande, who effectively mentored the Henley explorers through the discovery, development of use cases, and production processes. Together, BlackRhino VR and HBS Africa, began to create a series of VR films and designed a six-day Kenya VR immersion for a group of graduates from a local South African bank.

Each graduate was equipped with an Oculus Quest 2 and oriented on how to use the device beforehand. Once introduced to the world of VR, the immersion began with a group viewing of the VR films, followed by virtual engagements with the founders of the featured companies, African representatives from the bank in question, and leaders from other Kenya-based businesses.

Tasting success

Finally, using Microsoft's AltspaceVR, a platform for hosting live virtual events, graduates are now able to engage interactively during specially designed VR social events and speaker presentations.



Experiences and outcomes of using virtual reality tools

The following sections summarise our endeavours progressing to what we envisaged for the future.

Honest reflection to ensure slicker experiences

Admittedly, HBS Africa's initial forays into using VR as a business learning tool were not without challenges. However, the stumbling blocks also yielded important lessons on how to create slicker experiences and learning interventions. Chief among these was the need to temper our expectations.

Overcoming the financial stumbling block

Initially, the team felt that students should be required to purchase their own Oculus devices. Yet, this proved both impractical and, in a country of such high inequality like South Africa, could have had an unintended exclusionary outcome. Ultimately, HBS Africa as an institution decided to invest in the technology as confirmation of its support of the initiative and to make headsets available for individual use as required. This concurred with international assessments that the cost of adopting VR was potentially prohibitive, given the initial financial outlay in terms of technology, such as VR headsets, and the need to create content specifically designed to be viewed and delivered using a VR platform (Stern et al., 2021). As the uptake of VR grows, both the cost of VR film and experience production and hardware should come down, while the realism of the experience will continue to improve (Murray, 2021). Already, the Henley Explore team has noted a significant drop in the price of hardware devices.

Securing collaboration and partnerships

It also became clear to the Henley Explore team that the VR experiences lent themselves to cross-medium collaborations, leading to the creation of business-related case studies based on the VR film content and covering mutually relevant themes in more depth using a short case format, with topics such as sustainability and cultural intelligence, diversity, and inclusion, leadership, and managing high-performance teams. The decision to hinge traditional business school methods on the VR films and metaverse interventions, while ensuring that accompanying case studies were unique, quick to read, and to the point, was intentional. More specifically, it reflected the belief that this new approach to learning should not limit itself by playing by the old rules. Indeed, HBS Africa's approach was deliberately exploratory and focused on developing partnerships.



Understanding opportunities for the future

Having taken this approach, by 2022, the Henley Explore team recognised that the current opportunity lay in utilising VR to address and understand real-world solutions using unique and authentic learning experiences (Herrington et al., 2007). It became clear to the team that the incorporation of VR into existing teaching methods complemented the nature of the technology used and did not seek to pigeonhole it within a current teaching framework.

Practical guidance for getting started

Insights from the United States

At the same time the Henley Explore team was experimenting with VR tools, so too were other individuals and global institutions. For example, Dr Gulbin Ozcan-Deniz, an associate professor in VR and construction at Thomas Jefferson University in the US, shared her practical, constructivist model for the use of virtual tools in education during a conference in 2019. Ozcan-Deniz made specific recommendations, namely:

- She advocated for an approach that merged concrete experience with observation and reflection, then evolved into the formation of abstract concepts before being tested in new situations (Ozcan-Deniz, 2019). The cycle was expected to gain meaning from each subsequent iteration.
- She presented a VR implementation requirements outline as depicted in Figure 1, which touched on many of the areas explored in the HBS Africa VR process, but not all. In particular, Dr Ozcan-Deniz's guidelines focused on embedding VR capabilities and collaboration within an educational organisation.

While Dr Ozcan-Deniz's practical guidelines are important, they unfortunately do not address the importance of the ideation phase that should accompany any viable VR programme.

VR Implementation Requirements

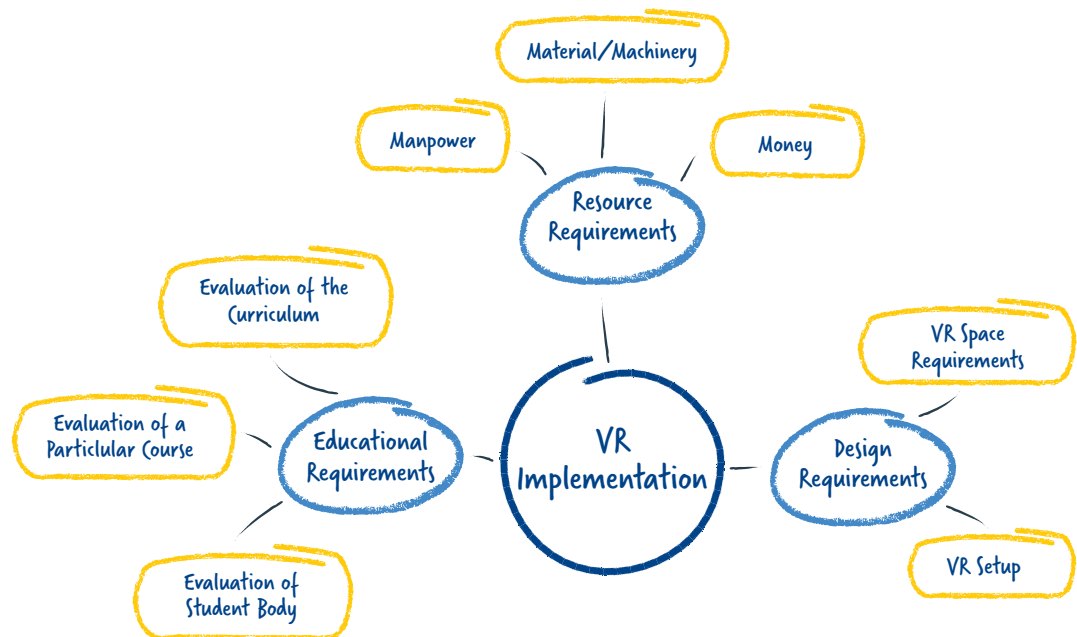


Figure 1: VR implementation requirements
Source: Ozcan-Deniz (2019)

Contemplating the approach

Like Ozcan-Deniz, the author also believes that ensuring space for experimentation, failure, and unrestrained playtime is essential to creating a foundation for VR. At this stage, the ability to look beyond defined ecosystems and acceptable processes also has merit if the potential for innovation across sectors and subgroups is to be successfully harnessed. For instance, one of the ways the Henley Explore team came to VR as a potential educational tool was due to an article in Wired magazine (Rubin, 2018) on how VR was changing the adult entertainment industry. The article argued that since a VR shoot is filmed from a first-person perspective, the approach must be less voyeuristic and more intimate. Rubin (2018) explained that it has the potential to shift the focus of an entire industry simply because of the empathy a first-person encounter has on the human psyche.

'With the frame gone, the viewer is in the scene. And once you're in the scene, thanks to presence, you're no longer a voyeur. You're a participant. No more detachment, no more desensitization' (Rubin, 2018).

Consequently, our thoughts were that if empathy could be injected into the adult entertainment industry, what could it do for business leaders facing social, environmental, and ethical concerns in the changing global world?





What we did: Henley Business School Africa's VR LAB experience

The Henley Explorer VR development process is evident in the roll out of three VR LAB experiences created by the business school's VR explorers and discussed below.

VR LAB ONE: Become acquainted with the basics

Initially the team developed a VR LAB ONE experience for HBS Africa staff, faculty, and clients. This was in the form of a fun and interactive orientation to the VR device. It included a guided session that took the participants through a range of different VR experiences from interactive VR to VR films, existing or commissioned by the Henley team, as well as social VR experiences on the AltspaceVR platform. While the focus of the session was on play and exploration as an introduction to the VR experience, some 'what if' or 'wouldn't it be great if' ideas inevitably surfaced.

The VR LAB ONE experience was also designed to demonstrate the use and application of VR as an empathy machine, which enabled participants to experience a range of emotions, without losing their sense of embodiment and presence in the moment (Palmer, 2021; Shin, 2018). A shorter version of the VR LAB ONE sessions was used to familiarise students ahead of an immersive learning experience, support the use of the technology, and iron out potential problems ahead of learning interactions.

Example:

A local bank was wondering what it could offer individuals in its graduate class of 2020 (who were attending an HBS Africa programme at the time) by way of an immersive experience, since the usual on-the-ground immersion to Kenya would not be possible due to the COVID-19 travel embargo.

Facilitating the experience

The Henley Explore team guided the bank's Learning and Development team through VR LAB ONE. It entailed familiarising the group with using the Oculus Quest 2 VR device and guiding the individuals through different VR experiences, which were designed to help them navigate VR. The team used First Steps for Oculus 2 and Batmersive, a computer-generated imagery Lego production. Once attuned to the VR world, the class experienced the VR film Maasai, part of the Nomads series produced and created by Canadian duo Felix and Paul, which allowed them to experience life in a Maasai village in Amboseli, Kenya, in an incredibly immersive way. Then, through the Waves of Grace VR film, the class was able to experience the impact of the Ebola outbreak on life in Liberia, as seen through the eyes of Deontee Davis, an Ebola survivor. Both experiences demonstrated the power of VR as an 'empathy machine', supported by the qualities of presence and embodiment. Finally, the Henley Explore team guided the audience into AltspaceVR, where the class and facilitators met up – taking the form of avatars – to connect and explore some of the different worlds that members of this social VR world had created.

ABC

The outcome

The VR LAB ONE experience was enough to convince the banking team that a virtual immersion, supported by VR technology, could create a singular and impactful experience that held value and impact for graduate participants. The next step was to engage in a VR LAB TWO design process.



VR LAB TWO: Setting up

The next stage in developing the Henley Explore experience was developed using the VR LAB TWO co-creation and design space. This involved a series of sessions with clear outcomes that were held with clients and faculty. This phase was also marked by the continued development of production and content partnerships, which included attracting the attention of the faculty, student body, and clients, and inviting them to utilise VR methods as part of the learning process.

Example:

In the VR LAB TWO design process, the Henley Explore team worked with the banking team (as explained in the previous example) to identify the key themes and outcomes of the virtual immersion. Speakers from the bank were identified to take part in the programme, after which the Henley Explore team outlined the scope of the project.

Facilitating the process

In partnership with the BlackRhino VR team in Kenya, a detailed design outline was fleshed out. The design included the creation of immersive VR films for the programme, the inclusion of social VR speaker events in AltspaceVR, discussions with speakers on the Zoom video communication platform, and opportunities to integrate and consolidate the learning. A special final experience involved a Swahili cooking class with Chef Audrey Atieno from Kikwetu Kitchen, all the way from Nairobi, Kenya.

VR LAB THREE: Prototyping new content

VR LAB THREE involved another series of sessions that enabled the team to further expand on the experiences of staff, faculty, and clients, as the team was able to share additional content produced using VR methods. Prototyping new content and building on existing plans and projects were key at this point in the framework, which again invited input and ideas from the role players to keep the output fresh and relevant.

Example:

Using VR LAB THREE as a create-and-prototype space, the Henley Explore team focused on conceptualising and creating two VR films for the programme, and worked on testing the Swahili Kitchen concept that was introduced in phase two. The team worked closely with speakers to ensure they were comfortable working and presenting in AltspaceVR.

Execution

The execution of the VR immersion involved rolling the experience out over six days for 25 students who were attending virtually from various locations. Each student was equipped with an Oculus Quest 2, with support provided by Henley Explore and the BlackRhino VR team.



VR LAB immersion impact

Reflecting on the experience

Measuring the impact of VR immersions is an area of current focus for the Henley Explore team as well as for participants and academics seeking to better understand the impact of immersive VR on outcomes based on presence, immersion, and interactivity (Hsu and Wang, 2021). However, an early indicator of the success of virtual engagements by HBS Africa was evident in the detailed student evaluations, which took place following the conclusion of the banking immersion highlighted in this white paper.

In class, the students talked about being 'together for the first time' when they were in AltspaceVR. The sense of presence translated into a tangible sense of togetherness for them. It was interesting to observe some students standing and talking in groups, while others would have more private conversations in groups of two. The nature of the interaction simulated the way individuals would engage in a physical space, which is simply not possible on platforms such as Zoom or Microsoft Teams.

Insights shared

Participants in the VR endeavour shared their views in the feedback/evaluation forms after completion of their hands-on VR experiences, stating:

- 'The immersion was fantastic and gave me a realistic as possible feel of Kenya. The experience was fun, interactive, and had a lot of learning as well. It has been the closest I have come to leave the country.'
- 'The virtual immersion was educational and enjoyable. Through this immersion, we got to interact with Kenya from a more personal level and really felt what it was like being on the ground, especially through films.'
- 'This was the very best way to learn, as the VR immersion puts you in the practical place you are learning about, rather than being told what it's like, it is better to experience.'
- 'I felt like I spent a week in Kenya. I was able to get a glimpse of the Kenya the guests were talking about through the VR films and that was an incredible experience.'

Conclusion

As the body of research grows and more practical business school case studies emerge regarding the use of VR as a learning tool, the practical value of incorporating innovative digital platforms and technologies into the business school facilitation mix will become increasingly evident. Already, it is becoming clear that new approaches must be harnessed to grow and develop relevant, empathetic, and socially minded leaders (Brown and Crawford, 2021) who are capable and aptly equipped to understand and tackle the complex social, governance, and environmental issues of our time.

At the very least, digital technologies like VR can be used to complement traditional facilitation methods and enhance proven and effective interventions and immersions, which help to strengthen future leadership skills, such as adaptability and understanding (Richardson, 2015). At best, the ability of these technologies to evoke a profound emotional response can fundamentally change how we learn, remember, and provoke action (EU Business School, 2019).

The likes of VR – and the future technologies that will, no doubt, grow from this base – have the potential to revolutionise the business school learning model (not excluding other disciplines) into a more experiential, innovative, and personalised learning journey. However, as the HBS Africa experience shows, a successful shift towards VR cannot be achieved without support across the business school, without embedding time to play and explore the multiple touchpoints, and without sufficient funding and faculty support. The Henley Explore VR LAB ONE, TWO AND THREE process offers insights and thoughts about an evolving journey, opening the floor for further interrogation over time. As more business schools share their VR developmental journeys, increasingly concrete models will doubtlessly emerge. This is to be applauded if the impact of exciting new technologies on the global learning ecosystem is to be fully exploited.



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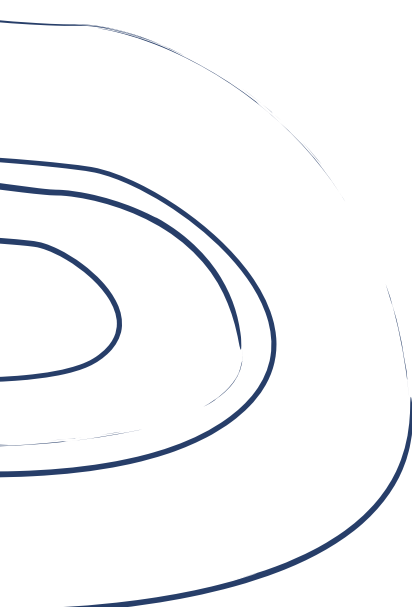
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Innovations, Provocations, and Explanations



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