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Leadership 2030: Renewed visions and empowered choices for European university leaders

Research Article

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Abstract: This conceptual and descriptive study examines the critical issues, challenges and priorities for European higher education (HE) leaders, drawing upon the theory, practice and experience of leaders inside and outside the open and distance learning (ODL) field. Focussing on the emerging vantage points of the 4th Industrial Revolution (4IR), global trends and the post-pandemic HE landscape, the article discusses their impact on organisational architecture and the emerging leadership roles for driving organisational values, change and sustainability. The authors argue that to maintain institutional stability and agility, leaders must interpret the current zeitgeist to set priorities, build decision-action packages and embrace a new organisational architecture: one characterised by flexible structures, a clear vision of the desired future, a culture of trust and openness, a comprehensive and deep understanding and optimum application of employee skill and talent, and the effective implementation of digital tools and curriculum structures in pedagogically meaningful ways. Leaders must be adaptable, agile and innovative, with the capacity to understand, identify and support the forms of leadership appropriate to their strategic objectives and institutional culture. The paper concludes by targeting critical priorities and actions that leaders must navigate to create innovative and dynamic futures for their institutions.

Keywords: *Leadership imperatives; Strategic reset; 4th Industrial Revolution; Institutional architecture; European higher education; Digital synergies*

Introduction

Leadership is complex, messy, often elusive, and always multi-dimensional (Arnold, 2022; Brown, 2023; Daniel, 2023; Olcott, 2020a). The interconnected world we live in, where global events and decisions can send shock waves across regional and local landscapes, further intensifies the challenges facing today's leaders (World Economic Forum [WEF], 2023). The impacts of these global reverberations are diverse in different regions and sectors of the world, and universities and its leaders are not immune to their effects. This interconnected world and current global crises formed a central programme theme for the 2023 World Economic Forum held in Davos, Switzerland, 16–20 January:

> … the current crises, as serious as they are, are manifestations of larger systemic deficiencies accrued over time. They are also the result of a narrow vision of systems as sectors rather than true multidisciplinary, networked entities that are highly dynamic, particularly in the context of the meta trends of the Fourth Industrial Revolution and climate change. (WEF, 2023).

Leaders across all sectors must prioritise and manage multi-dimensional issues and challenges simultaneously, and be capable of adapting to changing environmental, market and societal conditions amidst the defining spirit or mood of today's era – also called zeitgeist (Daniel, 2023). Universities are not insulated from these impacts and a central theme of this article is that leaders must deal continuously with the multi-faceted issues and trends that weave themselves into mainstream university operations, vision making and leadership.

In retrospect, the whirlwind of issues that have emanated over the past 3 years has left most of us exhausted, overwhelmed, and confronted with a level of change and uncertainty that is unprecedented in recent times. Deciphering exactly the core characteristics of the current European zeitgeist is disconcerting and challenging. Without question, 2020 was a turbulent year by every measure (Lindsey, 2020). The global pandemic created a massive international health and economic crisis. Newly elected Joe Biden inherited a failing US presidency, whilst racism was centre stage in the US following the murder of George Floyd. China

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was flexing its geopolitical muscles on the world stage, and unpredictable climate disruptions continued across the globe. Troublesome events emerged in Iran, right-wing threats to democracy were pervasive, and amidst all of these disruptions, Brexit seemed like a misguided decision.

Disruption was also the trend across the broader higher education (HE) landscape. International education paralysed student mobility, primarily due to the Covid-19 restrictions on travel and mandated quarantines. Universities with large international operations saw their revenues depleted, which then resulted in major staffing and programme cuts. Foreign students and their financial resources stayed home. Moreover, the digital mass migration to Zoom, Teams and other online systems to 'rescue' education during the pandemic was a mixed success story (Bozkurt et al., 2020).

Leading economists, political leaders and university chief executives have suggested that many of these disruptive changes have accentuated and not caused the underlying shifts across all societal sectors that were already occurring and leading the EU and HE into uncharted waters (Brown et al., 2020; Menon & Castrillon, 2019; Penprase, 2018; Schäfer, 2018; Schwab, 2016; Xing & Marwala, 2017). Increasingly, new forms of credentialing were being discussed (e.g. micro-credentials, competency-based training, etc.), government funding to HE continued downward, and OERs and MOOCs were not growing at the rates predicted a decade earlier. Geopolitical shifts were also apparent in the global rankings of universities, with more institutions from Asia, particularly China, Africa and the Middle East, joining or rising in the ranking League Tables.

In retrospect, the ubiquitous hope was that 2021 had to be better than 2020, but global events continued to destabilise economic markets and educational mobility (Lindsey, 2021). Supply chains began to falter, Iran was pursuing nuclear weapons development and the Taliban had returned to power in Afghanistan where 20 years of educational gains disappeared overnight. Global democratic erosion continued, along with further climate change disasters on nearly every continent. It was clear a brave new world would have to wait.

On the European home front, 2022 began with the Russian invasion of Ukraine on 24 February. This has created nearly 8 million refugees across Europe, and nearly 5 million internally displaced persons within Ukraine (UNHCR, 2023). Globally, we have seen intensified relations between China and the US; riots and protests in Iran against human rights abuses; a growing economic recession characterised by rising food, energy, travel and health costs due to the Ukrainian War; more climate change disasters; and increasing push-back against democratic values and processes (Lindsey, 2022). NATO has come together in solidarity with Ukraine, and Sweden and Finland are knocking at the door to become new members, whilst Vladimir Putin continued to violate international law, human rights and the United Nations.

This snapshot of today's world accentuates the complexity of our times and, more importantly, the complex, messy and often elusive pursuit of sound and effective leadership. The leadership roles described in these scenarios have much in common, such as the need to engage with multiple stakeholders, manage diverse and often conflicting issues at the same time, and perhaps more importantly make sound but difficult decisions about priorities and actions, including knowing when to compromise, stand one's ground and/or retreat. The authors' hope and intent are to help current and aspiring university leaders identify these priorities and manage them effectively amidst the zeitgeist of our era (Daniel, 2023).

Purpose and Scope

The primary focus of this article is to identify key priorities and actions that university leaders must engage with to lead their institutions. Moreover, we must again recognise that leadership and change are messy. It is one thing to understand multi-dimensional issues of an interconnected world facing leaders; it is quite another to decide what to do – and what to do first and to do next (Brown, 2023; Daniel, 2023; Miller & Ives, 2020; Olcott, 2020a, 2020b).

The authors will first present a summary analysis on global megatrends, the post-pandemic world and the 4th Industrial Revolution (4IR). Next, we reflect upon ways in which post-pandemic and 4IR characteristics reframe organisational architecture (e.g. policies, structures, technology and values), while identifying the characteristics of this new architecture that allow institutions to thrive in an increasingly competitive HE market (Senge, 2006). Thirdly, we will examine the implications for leadership, and more specifically, the priorities leaders will need to embrace to drive organisational values, change and sustainability. In sum, we consider how reframing alternative micro and macro views of issues and leadership can be sustained in this new competitive landscape without being derailed due to situational crises, complex bureaucratic structures, market shifts, competing priorities, customer demands and poor management (Arnold & Sangrà,

2018; Brown, 2023; Burns, 1978; Daniel, 2023; Schein, 2004; Senge, 2006). The article will conclude with three sets of recommendations for European HE leaders: (1) institutional priorities that leaders must embrace going forward, and why these are critical to success; (2) leader actions that must be empowered across the culture of the institution; and (3) the essential elements of institutional architecture for building the next iteration of one's university. Finally, we discuss the interdependencies of these leadership strategies and how leaders can manage these together without becoming overwhelmed by complexity, change and confusion.

The European Ecosystem for HE Leaders

Global megatrends

Any attempt to decipher the multi-dimensional elements of global trends or post-pandemic revelations within the backdrop of the 4IR reinforces the opening assertion that leadership is complex, arduous, elusive and messy. Moreover, to retain our focus on university leadership in Europe, we have to drill down from the macro global to the European context. We monitor and learn from the global context, but our actions and those of leaders must be razor sharp at the local and institutional levels (WEF, 2023). Think globally – act locally.

Menon and Castrillon (2019) suggested that organisational leaders must prepare for a perfect storm of unprecedented technical, socio-economic, geopolitical and demographic drivers. Moreover, the question this raises for HE is whether European colleges and universities can respond fast enough within this emerging 4IR (Menon & Castrillon, 2019). We will now briefly look at three areas, which create the canvas behind HE for the next decade: (1) global megatrends; (2) lessons and potential changes emerging in the post-pandemic HE landscape; and (3) characteristics of the 4IR (Table 1). All three of these trends overlap, reinforce each other and at times even compete with each other.

This table highlights some selected trends and issues relevant for understanding some of the shifts that are defining the zeitgeist of the 2020s. It is beyond the scope of this article to encapsulate the impacts of all of these and their roles as catalysts for subsequent issues on all fronts. At the same time, it is important to view the multiple frames of how many of these factors are interconnected and can be transposed for the European context.

Economic calamity is already impacting HE due to slowdowns in business worldwide and resultant economic impacts (Adam et al., 2020; Bozkurt et al., 2020; The World Bank, 2020). The negative economic downturns of the pandemic have infiltrated every corner of life, and recovery has been further neutralised due to the Ukrainian–Russian War. Employee and student mobility have continued to stagnate, and change and disruption have intensified. Global funding for HE continues to be cut, as increased reductions loom, further coupled with increasing nationalist and populist political movements emerging in many parts of the globe. The pandemic also revealed that the digital divide was wider than anyone realised. Traditional public goods are under threat due to unstable economic and government policies (Bozkurt et al., 2020). Lastly, and most disconcerting, is the mass migration from the global south to the global north as climate change devastates agriculture and farming globally, forcing people to go north to find work and better lives.

Conversely, research continues, and new skills and studies emerge each day discussing the job markets for the future (Ehlers & Kellermann, 2019; McGreal & Olcott, 2022; Redecker, 2017; Sala et al., 2020). Online distance education is not 100% normative and likely will not be, although for the first time in its history, it is emerging as mainstream in European HE, as well as in lower levels of education. For example, K-12 schools

Table 1. Global Trends, 4IR (Revolution), and HE-Covid-19 (Penprase, 2018; Menon & Castrillon, 2019; Nichols, 2020)

Global Mega-Trends	HE / Covid-19 / Online Education	4IR (Revolution)
• Ukrainian War • Recession • Energy crisis • Nationalism • Digital divide • Economic recession • Decreased public funding • Competition • New global regionalism • Shifts in global economic powers • Climate change • Migration from Global South to Global North	• Online growth • Lack of preparedness • Lack of support services • Mission ambiguity • Leadership development • New pedagogical models • Micro-credentials • Need for faculty training • Contingency planning • Inequitable access to technology • New stakeholder relationships • Data ethics • Digital equity and inclusion	• Advanced digitalisation and automation • Job creation – job loss • Employee mobility • Integration and horizontal seamless business models • Constant skill upgrading • Continual diversification • Differentiation • Artificial intelligence

have swiftly transitioned to online for the most part, and as a result, schools are better prepared to respond to the next round of the crisis; however, it is unlikely we will see mass scale-up of online high schools across Europe (Bozkurt et al., 2020). In addition, the K-12 market is less competitive than HE, and government resources may preclude major investments at least in the short-term.

Global trends, the impacts of the global pandemic and the role of the 4IR as a catalyst for a complex and messy leadership environment appear self-evident. At the same time, the intersection of these recent forces has accentuated many of these issues ultimately landing near the modern university. Indeed, these issues within the current zeitgeist and local context command the attention of policy makers and institutional leaders. Deciphering which issues are the most important and choosing next-step actions to address these are in essence the primary themes of this article.

Lessons from the pandemic

The empirical evidence from the pandemic digital response (Bozkurt et al., 2020) has shown that most inexperienced schools and universities lacked faculty training, sufficient student support services, design support and digital technologies, and that their leaders opted for expediency and arbitrary implementation rather than sound planning. Conversely, the expediency in which educational institutions had to respond suggests that the level of global response under extreme circumstances was certain to be uneven and varied in consistency, quality and service (Olcott, 2020a).

Brown (2023) has suggested that: (1) online learning facilitated access to HE for those affected by campus closures; (2) it served as an example of potential new digital models of learning to expand access; and (3) 'online learning is now a viable and increasingly mainstream alternative for people wishing to upskill and earn as they learn' (p. 512). These assertions certainly have some validity, despite online delivery being the only viable option to Covid lockdown. However, being the only option is not synonymous with academic and digital quality.

Many advocates for quality online learning were quick to critique their fellow educational colleagues who even pulled a term out of obscurity that the profession phased out 30 years ago – remote – and a term that has negative connotations of isolation and alienation. Undoubtedly the online evangelists with the quality caveat believed open and distance education had ascended to the mountain top; however, the verdict is still out on the long-term permanent impacts of transitioning to online learning.

As we explore some of the issues in Table 1 around the pandemic, it is clear that online learning and digital learning took centre stage at a level unprecedented in modern education. This does not mean that online and digital learning will be one of the new normals for the future, but rather, it suggests that the majority of educational institutions have seen and, in many cases, grappled with the essential aspects of producing and delivering quality online learning. On this point the authors agree with Brown (2023) and the myriad of quality defenders. Going forward, we are already seeing new approaches to pedagogy using digital technologies.

Regardless of online delivery's immediate role in their mainstream mission, school and university leaders will ensure this is part of their institution's contingency planning and strategy. Serious educational providers who were new to online delivery during the pandemic now understand the importance of faculty training, learning design, student support services and assessment, and that ensuring equitable access to digital technologies by students is an essential part of the big picture delivery matrix.

A final impact emerging from the pandemic is declining student enrolments in HE, particularly in the US (Greenfield, 2022). Enrolments were declining prior to the pandemic but the US struggles to bounce-back post pandemic. In Europe, the data are less clear, although applications from Europeans to study in the UK have dropped dramatically, whilst Chinese and Indian foreign student enrolments have been in an anticipated decline in the international education arena (Times Higher Education, 2022). It remains uncertain whether we will see continued volatility in student enrolments for many years to come. Enrolment trends are due to many factors such as changing demographics, geopolitical shifts such as US–China tensions, and student resistance to debt and limited employment opportunities on the horizon. In sum, this market is volatile for many reasons.

The 4IR

Against the backdrop of global megatrends and the pandemic, we also have the ongoing emergence of the 4IR brought about by continued technological advancement. The technologies that are already emerging from the 4IR include advanced artificial intelligence (AI) systems, synthetic organisms, implantable cell phones, reading classes connected to the Internet and even interconnected clothes. Driverless cars are being developed to complement our pilotless planes and intercontinental ballistic missiles (ICBMs). There are emerging discussions about AI robotics producing new members for corporate boards, as

well as much needed food production technologies to replace the destruction of arable land due to climate change, particularly global warming. The *Internet of Things* can interconnect objects and devices, and 3D printing enables the creation of objects using a variety of materials. In this way, the 4IR has created an environment in which technology has permeated every aspect of life, including human beings themselves. It is this new environment that HE must now contend with, by adapting and partnering in these new industries, training their personnel, and providing research laboratories and lifelong learning and professional development opportunities for employees seeking constant re-skilling.

The best way to conceptualise what is meant by the 4IR is to first examine the first three industrial revolutions. Like most historical transformations, precise dates are fluid and the industrial revolutions have historically overlapped with each other. Moreover, each successive industrial revolution has been characterised by advances in technology that have served as the catalyst for societal transformation. However, these technologies also bring with them affordances and challenges despite their soundbites of progress.

The 1st Industrial Revolution started in the 18th century and was driven by Newtonian laws of motion, which in turn were adapted using water and steam to drive the manufacturing and textile industries (Xing & Marwala, 2018). The 2nd Industrial Revolution emerged in the latter part of the 19th century driven by electricity, which found its origins in electric and magnetic forces. These were the catalyst for large scale industry characteristics of steel, railroads, Ford Motor Company and the infamous Titanic (Penprase, 2018; Schäfer, 2018; Schwab, 2016). Technology was seen as progress and 'unsinkable', a fatal error in judgement affirmed by the Titanic tragedy and repeatedly during WWI. Technologies were and continue to be tools, and they do not fix poor leadership nor flawed thinking, which is a subtle but vital lesson going forward.

The overlapping period of the 1st and 2nd Industrial Revolutions (1850–1880s) had major impacts on HE in Europe and the US in particular. The most important was the adoption of the German model of research by American universities in the 1870s. During the American Civil War, the Morrill Act created land grant universities (mining and engineering universities) in each of the states, along with numerous other state universities. This growth period placed a catalytic growth on the importance and standardisation of research in American, European and global universities (Penprase, 2018). Europe, and specifically Germany, led this major shift, and its impacts on future industry, militarisation, global conflicts and shifting economic patterns were immense. Despite this focus on research, however, it would take two 20th century world wars before government would invest heavily in R&D and research in universities (Penprase, 2018).

The 3rd Industrial Revolution again started with technology – this time with the transistor, which served as the impetus for the Turing *Thinking Machine* or *Imitation Game*. All were the precursors for modern computers by Bletchley Park code breakers, ENIGMA and ULTRA during WWII. As mentioned earlier, these industrial revolutions overlap and although computer development followed WWII, it would not be until the 1980s before *personal* computing took off in society (Penprase, 2018; Schäfer, 2018). Behind the scenes, Steve Jobs and Bill Gates had already envisioned a brave new world for education and society, with the computer infiltrating every aspect of our daily lives.

The origins of the 4IR, whilst arbitrary, can be traced to the biggest innovation since $E = mc^2$ in the 20th century – the creation of the World Wide Web (WWW) and Internet. We might set the mid-1990s as the real start of this revolution for two reasons: (1) the everyday use of the WWW and Internet, and (2) the mass digitalisation of technologies, content and data. We should note that the WWW and Internet drove communications well before they were ubiquitously used as technologies for education.

What are the characteristics of the 4IR? Schäfer (2018) suggested that the defining characteristic of the 4IR is computer power**.** It is not just the digitalisation and the affordance this in and of itself brings. It is an ultra-digital environment where computer power has increased exponentially, whilst storage costs have decreased. Schäfer (2018) also suggested that the EU has lagged behind Silicon Valley (US) in both innovation and technology policy and that greater collaboration between the private sector, government and universities is needed in the future.

A second characteristic of the 4IR is disruption. This raises an interesting question – will disruption become normative (or already has) or will change become so common in our daily lives that we will barely notice? The disruption associated with the 4IR means current jobs and industries will become obsolete and new jobs will require just-in-time training to reskill and adapt. That said, AI may play a key role in creating a whole new range of jobs in fields such as science, nanotechnology, engineering and maths (STEM), data analysis, computer science and engineering (Penprase, 2018; Schäfer, 2018).

For our purposes, we must assess how the university can respond to, stay current and thrive in this moving-target transformation – while also utilising

4IR technology within the zeitgeist. Universities have historically followed a drawn-out decision-making process of deliberation, consensus and incremental implementation. Curricula will need to be designed and packaged differently; micro-credentials will likely drive new industries and training for these jobs, including formal and nonformal Continuous Professional Development (CPD) (European Commission, 2020; Oliver, 2019; Read & Arnold, 2020). Productivity will also be an immense challenge because innovations are not followed by immediate productivity gains and because widespread training and adoption have not reached the tipping point in society for mass adoption. In sum, a fast paced, complex, competitive marketplace for all sectors including HE (Olcott, 2020a, 2020b; Xing & Marwala, 2018) will define the HE landscape.

Challenges Facing Leaders in European HE

The current challenges facing national leadership are vast and profound, stemming primarily from the Russian invasion of the Ukraine, resulting in refugee and energy crises, economic upheaval and global political realignment. Although the severity and stakes between national leadership and leading a university may not be the same, leaders in both contexts are impacted by these global events and must set priorities accordingly. It is essential that leaders move some key initiatives off the table, make decisions and take action. In the forthcoming sub-sections, we explore a few of the challenges facing European university leaders.

Economic

It is difficult to generalise the economic challenges facing HE across the geographic region of Europe, as the national economies within the EU vary dramatically. One thing is certain – the fallout from the Ukrainian War has been a catalyst for a global economic crisis characterised by higher food, fuel and general costs of living, coupled with a growing energy crisis. These will impact on the education sector, whether in terms of reduced public funding (already a major trend) or by threatening current business models of education.

For example, if we consider the UK (and England in particular), the reliance on high tuition fees (in 2023: £9,250 per year,[1] or approximately €10,500) as a source of income for HE institutions (HEIs) makes them particularly vulnerable to a decrease in demand for the traditional campus experience. Students may also not be willing to enter into considerable debt for what they consider to be a substandard education, basing this on their poor experience during the emergency switch to remote online teaching during the Covid-19 pandemic. This is compounded by the fact that the selling point of many English HEIs is centred around the campus experience, with shiny buildings, accommodation and fitness facilities being promoted to attract students.

In countries such as France, despite a trend towards greater autonomy over the past 2 decades (Musselin, 2005, 2021), the vast majority of universities are reliant on public funding, with the cost of enrolment on a Bachelor's degree in 2022 set at €170/year.[2] Funding for teaching activities is based on a government endowment calculated based on student numbers, research funding is increasingly reliant on grant applications and even the French government support for introducing blended learning in order to prepare for the Fall semester of 2020 was subject to a call for proposals.

One of the challenges here is in providing quality education in a context of massification and diversification of the student population where many entrants to HE are poorly prepared for academic study. A further challenge is that the use of digital technology has in some cases been presented as a cost-cutting solution, in particular to reduce staff costs. This is hardly the way to motivate academics who are already under a great deal of pressure to generate income through research grants.

Political

In Europe, education policy remains the prerogative of the Member States, but EU policy still has considerable influence. The renewed EU agenda for HE adopted in May 2017 identifies four main goals (European Commission, 2017):

1. Tackling future skills mismatches and promoting excellence in skills development.
2. Building inclusive and connected HE systems.
3. Ensuring HEIs contribute to innovation.
4. Supporting effective and efficient HE systems.

Of particular interest to digital education is the development of European University Alliances and the proposed Council recommendation on automatic mutual recognition of HE and school-leaving diplomas to help remove barriers to student mobility within Europe. In addition, the EU Commission has accelerated updates to its Digital Education Plan in response to the pandemic, having launched a public consultation on the future of

1 https://www.bbc.com/news/education-64236906

2 https://www.service-public.fr/particuliers/vosdroits/F2865

digital education.[3]

In the context of increased collaboration and mobility within the European HE Area, the impact of Brexit cannot be ignored. At the time of writing, UK HEIs are excluded from the EU Erasmus+ programme, and the decision to apply international student tuition fees to EU students is expected to result in a significant drop in numbers of international students in the UK, with 84% of prospective EU students saying 'they will "definitely not" study in the UK if the decision means their tuition fees will be doubled' (O'Malley, 2020, p. 1). This projection has been confirmed by official figures showing 40% fewer applications from EU students in 2021 and 65% fewer EU students starting fulltime undergraduate courses in the period 2021–2022.[4]

Many political commenters have also noted that Brexit closes many doors to UK students who desire to study in Europe. In addition, the current pandemic places pressure upon EU and international student mobility and has the potential to discourage mobility across borders. As Covid-19 hotspots flare up within nations and internationally, policy makers and institutions continue to scramble to define guidelines that support cross-border studies in blended and online formats (Erasmus Student Network, 2020).

Social and cultural

The diversity of European nations suggests that social and cultural dimensions are ubiquitous. From another vantage point however, Europe is evolving with less dependence upon the US and UK; hence the locus of control in HE will likely shift towards a more continental focus and priority. Unprecedented since WWII, this development has the potential to usher in a new era of national interdependence, which could translate into closer collaboration between western and eastern Europe as well as support emerging collaborations with the Middle East, Persian Gulf nations and Africa. University leaders willing to embrace this opportunity will open new doors to partnerships, exchanges and international education.

It is also clear the post-pandemic era will mean many 'new normals' for society and for schools. For example, home schooling of children has become more normalised, and the impact of technology on education at all levels is expected to be long-lasting, even after the pandemic has passed (Broom, 2020). School culture will likely mirror society, with social distancing becoming a commonly accepted form of interaction, and this new situation has and will continue to require adjusting learning spaces accordingly. In addition, we will see educational institutions re-assess their core values, their missions and their long-term vision in response to the effects of the pandemic.

Ecological/sustainable

We cannot discuss challenges to HE without considering the wider global challenge of climate change. As became significantly apparent during the Covid-19 lockdowns, the pandemic had a positive impact in reducing carbon emissions due to less travel. Within HE, the pandemic has major implications for the very way education is organised, for example, the moving of face-to-face conferences, workshops and symposiums to online environments. Notwithstanding the shift to online conferences, HE leadership needs to rethink the way teams work virtually and to embrace e-leadership principles of trust and distributed working (Arnold & Sangrà, 2018; Jameson, 2013). Other environmental and sustainability concerns include an increasing awareness of the ecological costs of educational technology choices themselves (Arnold, 2022), such as the energy required to power large datacentres, and the need to build such considerations into policy.

This is echoed by Selwyn et al. (2020), who highlight the 'need to develop radically leaner and ecologically-mindful approaches to rethinking how digital technologies might be best deployed (or not deployed) in education' (p. 4).

Financial

Since 2021, we have seen massive cut-backs and closures across the globe in HE. The most visible was probably Australia, where a dependency on international students (25% of the student population) is creating havoc in sustaining staffing and budget (ABC News, 2020; Prytz, 2020). Due to the pandemic, international student business came to a complete standstill. For many universities this has meant significant drops in revenues. Data for Europe indicates a considerable reduction in international students from India and China, the primary foreign student groups for European universities. That said, an increase in international students is predicted in Germany, as study-abroad students are shying away from the US and the UK, as they are lured by low tuition costs and the quality health care offered by the Germans (Martin, 2020). This development will need to continue to be monitored.

Although the pandemic clearly wreaked havoc on institutional budgets, financial troubles are not

3 https://ec.europa.eu/education/news/public-consultation-new-digital-education-action-plan_en

4 https://commonslibrary.parliament.uk/research-briefings/cbp-7857/

new to HEIs – and in particular, open universities. In the past 10 years, nearly all major open universities have faced severe financial crises, which has left many leaders perplexed, particularly as the open university model mantra is to serve more students and lower production and delivery costs. For example, in 2010 the Open University UK faced multiple funding challenges resulting from a shift that can be attributed to a reduction in base budget by government, reduced funding for second degree students and new fees for OU students. Consequently, these decisions ironically excluded many students the OU was originally created to serve – disadvantaged, socio-economically limited students. Hence, the OU was forced to cut-back its enrolment significantly. The OU is still the model for open universities worldwide and yet this prestigious and innovative university is not immune from political and economic downturns.

Although the University of South Africa (Unisa) has increased enrolment from 200,000 to nearly 400,000 since 2010, the institution is still strongly dependent upon print materials (correspondence education) and is in the middle of a major transformational shift to online delivery (Bates, 2008). Unfortunately, the one variable in both examples is that the institutions rely on one singular funding source – and if your university is *dependent* upon one primary funding source, you are vulnerable and susceptible to economic crises. This is not an intended critique of open universities; however, it does illustrate that the open university business model is flawed. Unlimited access for students can only occur if you have unlimited funding, and governments simply will not provide unlimited funding in the future, which means diversity in your funding revenue streams in order to create your operational budget. This is one of the key take-aways from this paper.

The New Organisational Architecture

In the face of these challenges within the zeitgeist, what is the optimum design of online and distance education organisations in the future? This section will consider the institutional changes necessary to realise a more resilient organisational design of institutions.

Redefining university structures

Despite the inertia that the pandemic and online response has had in accelerating the use of online instruction, the reality is that most schools and universities are not going to become fully online institutions. In fact, few K-12 schools, other than very innovative high schools, will likely remain primarily online and when they do, only for advanced classes or emergencies. Similarly, universities across the globe will not become strictly online universities. Single-mode open universities are the exception, and the majority of universities across the globe are dual-mode universities that offer both face-to-face and online programmes.

Unlike open universities that offer most of their programmes/courses at a distance, dual-mode universities focus only on those programmes that are market-driven and can support themselves. For example, most US institutions offer some level of online learning but state control and funding of HE precludes scaling up to thousands of students, thus preventing establishment of fully open universities. Enrolment increases are tempered by accrediting and funding policies. Despite many differences between European and American universities, the common element of being primarily dual-mode institutions may result in valuable sharing and learning from each other going forward.

This dual-mode factor is particularly relevant to Europe. Some institutions will decide to move completely online over the next decade, a likely occurrence amongst institutions that were already moving in this direction. Olcott (2020c) has suggested the decision matrix for the future will be that new institutions in the online market will have to decide if they are going full steam ahead, and Teixeira et al. (2019) highlight the challenges this changing landscape brings to the historic distance education universities whose existing organisational structures will need to adapt in the face of increased competition.

Those dual-mode institutions already in the market prior to the pandemic will more likely re-assess the balance they have of face-to-face and online, perhaps increasing online delivery of specific courses and reducing delivery in others. This is the broader online market going forward.

Building a culture of trust

Trust is a vital component in any move to bring about organisational change, even more so when technology is involved (Holland & Piper, 2016; Jameson, 2014; Jameson et al., 2022a; Martins & Baptista Nunes, 2016). Remote, distributed teams need to know they are trusted by leadership to work autonomously without being subjected to constant surveillance. Those in leadership roles will not only need to embrace this trusting mindset but also to convey this trust through actual attitudes and behaviour. Teachers and learners need to know that the technology they are using is trustworthy from an ethical point of view (for example in the use of their data, by the institution and by any third parties involved), and the pedagogies employed by teachers need to be built on similar principles of trust.

Vision making

In these times of complexity, where no single individual can hope to have the answer to every problem, the days of the sole visionary leader are long gone. Vision making needs to start from the development of a shared vision, taking into account the different cultures within an organisation, and indeed the national and geographical culture in which that organisation operates (Czerniewicz & Brown, 2009). Olcott (2020a, 2020b) points out that a vision is an ideal state of affairs usually 3–5 years in the future. Vision making is only the beginning stage, and the real challenge comes with instituting change, which often fails because leadership does not know how to manage and lead change; in short, leaders fail to go the distance and stay the course, and failure becomes most evident during the implementation stage.

Maximising talent – A question of fit

Visionary leaders all know one thing – the capacity of their organisation is dependent not just on the talent of their staff but on how that talent fits synergistically together to create a whole that is greater than the sum of the parts. Despite the predilection of the term *dream teams*, the fact is, organisations can have exceedingly high talent mixes and yet fail miserably because this talent does not fit well together. It takes a very astute leader to stand back and truly assess the talents, skills, personalities and fit of the thriving 21st century university.

Unfortunately, whether in the Australia, UK, US, South Africa and pretty much any European university, most leaders inherit their staff. Bureaucracy and government regulations limit a leader's autonomy to decide on the talent mix of their organisation. To circumvent this, leaders can hire smartly once aboard, as well as explore job rotation and the strengths current staff bring to the table. Olcott (2020b) notes talent often isn't the issue, but instead that the talent is in the wrong job. Aligning talent and skill in designing the optimum organisational mix is a sensitive issue, but in doing so, leadership can leverage the power and impact of their organisations.

Digital transitions

Use of technology in classrooms is no longer the exception, but the rule. Traditional lecture approaches are not only implausible in the time of a pandemic, but also do not fully address the challenges outlined above. Instead, new approaches must be explored and adopted – and incorporated into an institution's short-term and long-term strategic plan. Bates (2008, 2020) described a few approaches that can utilised within institutional curriculum:

- *Blended*: Blended learning combines both online and face-to-face elements in delivering instruction, for example, offering lectures in the traditional classroom, while holding other learning activities in an online setting, such as discussing course content and conducting project or group work. One example of this is the flipped classroom, where course lectures are delivered in a media format that can be distributed online, and classroom time is devoted to group activities and discussion.
- *Hybrid*: Deliberately planning elements of the class to be carried out either for face-to-face or online instruction, choosing the right mix of delivery mode and media that are most appropriate and effective for teaching and learning to occur.
- *Hyflex*: Curriculum is offered in a variety of forms (online, blended, face-to-face), and students can choose the form that best suits their desired approach to learning, as they 'seamlessly shift between attending class in person, joining in synchronously online, or catching the class asynchronously later – and they can change their mind, fluidly, from day to day' (Bates, 2020, 5:00).
- *Online*: Education is carried out entirely in an online environment, synchronously and/or asynchronously.

As institutions transition to new forms of curriculum design and delivery, their choice of delivery format will be critical – and reliant upon the context within which the instruction conducts its business (e.g. social, political, economic, geographic). In response to the pandemic, institutions have swiftly moved to emergency remote teaching, where the face-to-face classroom is replicated within an online environment (e.g. delivering lectures to students asynchronously). As institutions further adjust to the implications of Covid-19, it will be essential for leadership to identify the form of learning that best addresses their context, taking into consideration the requirements of stakeholders (students, teachers, support staff), as well as the institution's strategic plan for education technology.

Pedagogy and credentials

While decisions about how to deliver the curriculum are critical in designing for new organisational structures, pedagogy, or teaching and learning approach applied in classrooms, also plays a decisive role. External forces from the workforce and students are exerting pressure upon institutions to incorporate more learner-centred competency and skill-based education. Employers require that students arrive to work with skills of autonomy, self-efficacy, self-motivation and

initiative, reflection, agility, creativity, digital literacy, and cooperation and communication, as well as ability to make sense of complexity and to adapt to ambiguity (Blaschke, 2021; Ehlers & Kellermann, 2019).

Within the 4IR specifically, entrepreneurial, innovative and multidisciplinary knowledge and skills will be particularly essential (Gwata, 2019). In response, curriculum designers are turning to more learner-centred approaches where learners have more control over their learning path and learning experience (self-directed, self-determined, self-regulated and problem-based learning), and with more learner-focussed assessment approaches such as peer-to-peer and authentic assessment and ungrading (Blaschke, 2012; Knowles, 1975; Stommel, 2018; Wiggins, 1990; Zimmermann & Schunk, 2008).

Another development within learner-centred curriculum design is that of micro-credentials, which allow students to acquire skills and competencies through smaller-sized learning units and to build their own curriculum by selecting various learning opportunities according to their learning needs and requirements (Brown et al., 2021; Ifenthaler et al., 2016; McGreal et al., 2021). Doing so allows students to earn credentials that can later be applied to or are part of a formal education programme or are recognised in their own right by employers (Grech & Camilleri, 2017; Lemoine & Richardson, 2015; Read & Arnold, 2020).

Leadership

Modern era of management and leadership: A selected literature review

The field of leadership studies is as complex and messy as the concept of leadership itself (Alvesson, 2017). Furthermore, as Jameson et al. (2022b) point out, much of the research in digital education leadership has failed to keep pace with the evolving conceptualisations of leadership in the field of management. To provide the reader with a solid background, we trace the evolution of these conceptualisations and contextualise them with reference to our key focus: the leadership attitudes, mindsets and behaviours required of HE leaders today and tomorrow (Sangrà et al., 2022).

From the beginning of the professionalisation of management in the 1920s and the classical theorists such as Frederick Taylor, Henri Fayol and Mary Parker Follett right up to Burns' (1978) seminal book *Leadership*, management and leadership theory and practice have adapted and progressed with the zeitgeist of the times (Daniel, 2023). The contributions of Drucker (1973) should also be recognised. Although he did not invent the leadership rhetoric that would emerge in the late 70s and 80s, he was alluding to many approaches that would differentiate leadership from classical management.

Theorists that would usher in modern approaches to management and leadership emerged in the 1970s and 1980s: Bennis and Nanus (1985), Schein (2004), Burns (1978), Bass and Riggio (2010), Kotter (2012), Harvey (1974), Mintzberg (1975), Senge (2006), Hersey and Blanchard (1977), Yukl (2013), Peters and Waterman (1982) and many more. These thought leaders introduced new approaches such as organisational culture (Schein, 2004), the Abilene paradox (Harvey, 1974), systems thinking in management (Senge, 2006), situational leadership (Hersey & Blanchard, 1977), key steps to organisational change (Kotter, 2012), core values (Peters & Waterman, 1982), a rethink of managerial roles (Mintzberg, 1975) and transformational leadership (Bass & Riggio, 2010; Burns, 1978).

What has literature and research informed us about effective leadership? A compelling retrospect is made by Daniel (2023) in writing about running distance education at scale. Sir John Daniel had served in senior leadership roles with Athabasca University and as Vice Chancellor of the Open University (UK), held a senior post with UNESCO and was President and CEO of the Commonwealth of Learning (COL). Moreover, he was successful in all these leadership roles, and his visioning and approaches are emulated globally.

According to Daniel (2023), leadership depends on the situation and the context – and on the zeitgeist. At first glance, one is tempted to consider Daniels' views to be overly simplistic. However, his views are very pragmatic, as upon coming to each of these senior posts, it was necessary for him to decipher the environment, set critical priorities, consider short and long-term decision packages, and then take action. In essence, these transitions were anything but simple and suggest that the range of leadership options can be as complex and messy as Brown's (2023) multifocal range of issues and trends the leader must weave through to find the most sound and viable solutions.

There are two key lessons here. Firstly, as the leader entering a new leadership role, you have to read the environment and set the priorities with your team and stakeholders. Secondly, and this is the elusive piece – leadership is cumulative for each of us. This means coming to any new post no matter how different than the last, no matter the changes due to a shift in zeitgeist and no matter the challenges on the horizon or at your doorstep; if you have successfully navigated the leadership maze before, you are more apt to adapt effectively to your new role and bring that experience

and tools to the party.

However, leadership is not just about the individual leader. Scholars such as Spillane (2006) consider leadership more as a dynamic, shared and collective process, and Distributed Leadership remains one of the most popular theories applied in HE leadership research (Arnold & Sangrà, 2018; Jameson, 2013). Yet as Edwards and Bolden (2022) point out, what form collective leadership takes or should take remains elusive. Bassa (2022) argues for a shift away from such individual framings of leadership to a holistic approach recognising the role of collaboration and demonstrating an awareness of the wider ecosystem in which universities operate.

Other framings of leadership as relational (Uhl-Bien, 2006) and the whole field of complexity leadership (Uhl-Bien & Arena, 2017, 2018; Uhl-Bien et al., 2007) also merit consideration in order to understand the dynamics of leadership within organisations. However, while they provide rich analyses of the processes at play within complex contexts, which leaders need to understand, these theories have less practical application in enlightening leaders as to how such leadership could or should be enacted.

A further emerging subfield of particular interest in the current zeitgeist is that of critical leadership studies, focussing on questions of power structures, ethics and equity. As such, this perspective is vital in a world where commercial edtech and so-called AI are making more and more aggressive inroads into the HE sector. Yet, as Jameson et al. (2022b) found, very little of the digital education leadership literature addresses the question from this angle.

In the final analysis, there is no magical formula for success for the leader or for an organisation. Leadership needs to be considered in context, and as much as a process as the mindsets and concrete actions of individual leaders. With this caveat in mind, we summarise below some of the findings of recent research that address such mindsets and behaviours. We refer to good leadership rather than 'great leadership', in recognition of the evolution beyond the heroic 'great man' theories of leadership characterised by current preoccupations in the field.

Practice and experience have consistently suggested to us that leaders are visionaries, they build trust across their organisations, they show empathy and value their employees, they employ sound judgement and common sense, and they can implement and lead change – not just talk or write about change. Brown (2023), drawing upon a Dublin City University (DCI) case study, suggested that good leaders see multiple frames (perspectives up close and at a distance) of critical issues and from diverse multifocal vantage points aimed at 'cultivating an adaptive learning organisation' (p. 514).

Good leaders are dedicated and committed to core values of the organisation and spend considerable time articulating and reinforcing these values amongst staff, partners and other key stakeholders (Arnold, 2022; Burns, 1978; Olcott, 2020a, 2020b). House and Aditya (1997) provide a comprehensive review of research on management-leadership based upon empirical studies, particularly pertinent to key values, attributes and personal characteristics.

Leaders empower those around them, mentor and coach colleagues, and lead by example and out front rather than from behind or on the side. Leaders display calm under fire – as situations become less certain they display a razor-like judgement in their decision making (Arnold, 2022; Brown, 2023; Olcott, 2020a, 2020b). Good leaders see opportunities and yet avoid high risk situations that threaten the organisation and/or its staff. A good leader views collaboration and competition through a similar lens and yet is seldom oblivious to market forces and changes in the business environment.

Leaders are human, they admit and learn from their mistakes, and seldom make the same one twice (Arnold, 2022; Brown, 2023; Daniel, 2023). And despite all these mindsets and behaviours, there are no guarantees. Great leaders fail and average leaders succeed every day across all sectors of business, government, education, healthcare, the military, social services and volunteer organisations.

Perhaps the most poignant lesson we have learned about leadership is that despite how good the leader appears, despite the range of extraordinary abilities one may possess, and despite having remarkable vision and resilience, sometimes the situational playing field is so complex given the context and culture of a particular problem or environment, it can spell disaster and failure for even the best leaders (Burns, 1978; Lamond, 2004). Conversely, average leaders might emerge due to good timing and a bit of luck and appear to be our leaders extraordinaire. In the final analysis, we must make major organisational investments in developing and nurturing leadership across our organisations at all levels.

Recommendations for Leaders: Setting Priorities and Taking Action

We turn now to a selection of priority areas that HE leaders need to focus on to address the challenges of the current decade detailed in previous sections. We have provided an example through the synergy of global trends, initial impacts of the global pandemic and

the basic tenants of the 4IR. We have highlighted the catalytic impacts on the economy and energy from the Ukrainian–Russian War. Within the current zeitgeist, we have addressed some of the critical challenges for the reader – and for the leader. These recommendations are grounded in our argument that leaders must *concurrently* manage multi-dimensional issues and that through all of these issues and trends, leadership is, in fact, messy, complex and often elusive.

Lamond (2004) reminded us of the difference between preferred style of leadership versus enacted leadership style. Our preferred style is what we would like to do on a consistent basis; our enacted style is influenced by the interaction of real world events, politics and winds of change that force us to focus on the immediate. In effect, the complexity of our environments prevents us from leading the way we prefer – we must set priorities, make decisions and take action. This is known as leading. Daniel (2023) reminded us that when he became Vice Chancellor of the Open University in 1996, his first task was to rebuild relations with the UK government. Brown (2023) ostensibly suggested that setting priorities is as much about deciphering and managing the culture. Kotter (2012) further reminds us that the majority of change initiatives in business and HE *fail* because leaders can talk change and design change plans but not effectively lead, delegate, inspire and implement change. In short, they can't walk the talk. This is the fundamental challenge that all EU HE leaders will face over the next decade.

Universities need to become 'change-capable' (Fullan & Scott, 2009). This entails working with the existing organisational culture to build agile systems and processes and empower those who will actually implement the change. With respect to digital education, change management approaches are more effective when combined with addressing attitudes to technology adoption (Khan & Smuts, 2019). This means that leaders need to take a people-centred approach to any change process, addressing the (often legitimate) reasons behind resistance to change, allaying fears, providing evidence of the benefits to staff and students of the proposed changes, and fostering ownership of the change process through a participative approach (Fullan & Scott, 2009; Kirschner, 2015).

Considering the challenges outlined above, combined with what we know from the literature on leadership, we formulate a series of recommendation for consideration by HE leaders. In Figure 1, these recommendations are grouped into three categories: setting institutional priorities, leader actions and institutional architecture.

Setting institutional priorities

Frame your leadership within 'zeitgeist' imperatives

Decipher your macro- and microenvironments, assess and vet stakeholders, and determine from the outset your three to four institutional priorities. What is your first task and why? What is next and why? The zeitgeist determines critical imperatives a leader must bring to his/her role. It is the mood, climate and rules of the game that define a particular era in history, and it sets the tone for determining the broader context of decision making and actions by all leaders across the organisation.

Advocate efficient digital integration

This is not a rhetoric-driven push for digital transformation. Digital tools will not make an average leader a great leader any more than they will make an average faculty member a master teacher. Tabrizi et al. (2019) argue digital transformation is not about technology; it is

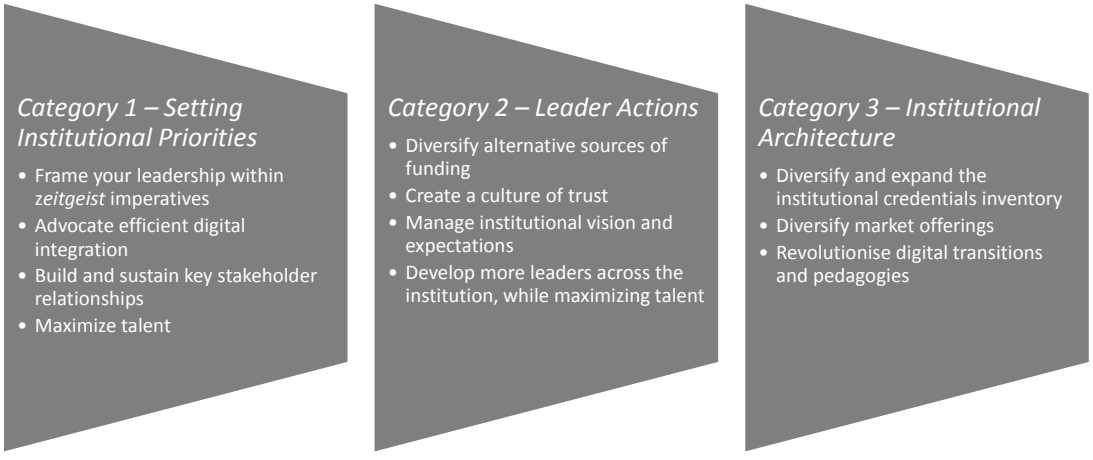


Figure 1: Recommendations for HE leaders.

about creating sustainable and agile business models. Digital integration, conversely, is about finding the best synergies of bringing all things digital together in the university. For example, McGreal and Olcott (2022) argue that one approach would be to integrate online delivery, OERs, MOOCs and micro-credentials all under one umbrella. Indeed, there are differences, but all are or will be digitally based, and institutional efficiencies, diverse pedagogical approaches and market diversity can all be leveraged with better centralisation of key digital resources.

Strengthen stakeholder relationships

The institutional culture from chief executive to the janitors must foster good relations with all key stakeholders. This means government, funders, corporate partners, student advocacy groups, social service agencies and the lot. These relationships require extensive time and energy and yet are essential to the long-term support framework for your institution, especially when times and resources are scarce. Daniel (2023) again reminded us that after a decade of Tory leadership in the 1980s–early 90s unfriendly to HE, this role coming to the OU was to rebuild this relationship. It was priority.

Leader actions

Diversify funding sources

Dependency on one funding source leaves you vulnerable to financial downturns, and it is not sustainable. There is no expectation that governments will reinstate former funding levels, and thus you must act now. European universities have a short history of maximising alumni relations. It is necessary to build this partnership from the outset. They are a source of networking and resources that can be a vital part of your annual operating budget.

Create and sustain a culture of trust

Openness, honesty and transparency are normative values of effective leadership. At the same time, this culture manifests itself in many diverse and complementary ways. It inspires confidence in the leadership. It is courageous in blending power, empathy and humanism in the same organisation. The culture never retreats from valuing people as the most important, resilient and agile resource of the organisation. Brown (2023) and Kotter (2012) accentuate the importance of embedding organisational change into the mainstream culture of the organisation; yet it is commonly considered perhaps the most difficult of all processes for a leader to manage successfully. The tendency is to claim victory before the changes have had time to truly become part of the normative culture. Western culture suggests this can be done in the short-term; the truth is this is a myth. It takes a long-term commitment, and it must be continually reinforced. As part of vision making, most change endeavours are a 3–5 year process and not for the fainthearted leader.

Manage vision and expectations

University leaders are infamous for trying to do everything, have their institutions do everything and ask their staffs to do everything. The result is mediocrity, poor quality, low morale, and stakeholder defections. Clearly define your vision, mission and core values, and make decisions based on these factors. Leaders must learn how to engage in projects and partnerships that align with the values and vision of the organisation and stay within these boundaries.

Make space for experimentation

While much of HE leadership time and effort may be spent on more managerial tasks such as accountability and standards, there is a clear need to make space for innovation and creativity. Again, this is as much a question of mindset as it is of concrete action. An example of how this might be done is through support for the mobilisation of Teaching and Learning Centres as safe spaces for experimentation (Morgan, 2016).

Develop leadership

Leaders build more leaders (Brown, 2023). Despite a growing trend towards leadership development (LD) in HE, a specific focus on LD for digital education is still in its early stages. To cope with the increasingly complex challenges of the 4IR and its impact on HE, LD should focus on developing appropriate mindsets, attitudes and leadership behaviours. These might focus on questioning the role of HE and leadership in an increasingly digitally mediated world, on developing a shared vision and a culture of change and innovation, and on addressing ecological challenges from a sustainability perspective (Arnold & Sangrà, 2020). Furthermore, LD is not simply about the development of individual leaders, but about developing the leadership capacity of an organisation so that it is in a better position to adapt to an ever-changing environment.

Institutional architecture

Expand institutional credentials

The credentials revolution in European HE is already here. The massive disruptions at all levels of global

markets and economies will require robust universities that can diversity their credentials offerings. Degrees and post-grad certificates will not disappear, but they will be less utilitarian in a future where people need jobs, training and retraining in a continuous lifelong learning zeitgeist. Moreover, this is not a call for micro-credentials, although this is certainly one viable response to new and shorter-term credentials designed to put people to work and/or upgrade existing employees.

Differentiate your market offerings

Online offerings do not make your institution unique. Your value package to customers and stakeholders does. Do what you do well and do lots of it within the parameters of your human, digital and fiscal resources.

Revolutionise digital transitions and pedagogies

Whether you are an open or dual-mode university, you must manage change, access and growth. Institutions that grow too fast cannot maintain services, qualified faculty and efficient infrastructure to sustain quality. When this occurs, your reputation, prestige and market value diminish to your customers and your key stakeholders.

Summary and Conclusion

We live in uncertain and precarious times. The challenges facing our institutions of HE and their leadership, staff and students are daunting. From climate change, wars and economic recessions to emerging radical right-wing governments, global migration, and credentials and technological revolution in HE, leaders are left trying to weave through the myriad of issues, trends and zeitgeist towards practical and sound decisions and solutions. Universities and their leaders are no longer insulated from the outside world.

The focus of this article is leadership. A central theme is that leaders must set priorities and take actions against blurred and often conflicting masses of information and data where razor sharp focus and sound judgement are critical. More specifically, the authors have framed the HE context within the zeitgeist of recent global trends, post-pandemic reflections-impacts and the backdrop of the 4IR. A range of challenges are identified and provide a segue into the exploration of a new architecture for European universities and potential actions leaders may consider.

The authors draw heavily upon the extensive body of literature on leadership and management and yet argue there is no silver bullet model of leadership success. Leadership is contingent upon navigating the current zeitgeist, anticipating the winds of change, understanding the situation or context where leadership must exist, and creating a culture of trust that maximises organisational talent and that remains on course to meet the leader's vision. And, even with all of these, great leaders still fail every day, and average leaders thrive due to good timing and a little bit of luck.

The article concludes with three categories of recommendations for European high education leaders at all levels: (1) Setting Institutional Priorities; (2) Leader Actions; and (3) Institutional Architecture. These are not intended to be all-inclusive, but they do reflect the key recommendations of the authors.

Category 1 – Setting Institutional Priorities: Leaders must frame their leadership within the zeitgeist, advocate efficient digital integration, and build and sustain key stakeholder relationships.

Category 2 – Leader Actions: Leaders must diversify alternative source of funding, create a culture of trust, manage institutional vision and expectations, and develop more leaders across the institution.

Category 3 – Institutional Architecture: Leaders must expand the institutional credentials inventory, diversify market offerings, and revolutionise digital transitions and pedagogies – and create a culture where talent is nurtured and grows.

Finally, it must be restated: leadership is complex, messy, often elusive and always multi-dimensional. Despite the uncertainty and the paradox that talented leaders fail whilst average leaders succeed, we still need good leaders to lead our universities. A powerful lesson of leadership is that for every challenge, issue or debacle we face, there are usually 3–5 sound options for the leader to consider in response. Indeed, the final choices and actions are often a synthesis of these viable solutions. In the final analysis, the primary role of the leader never changes: the leader sets priorities, makes choices and takes action.

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