

The Emerald Handbook of Higher Education in a Post-Covid World

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The Emerald Handbook of Higher Education in a Post-Covid World: New Approaches and Technologies for Teaching and Learning

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PRAISE FOR THE BOOK

'I find the book to be one anchored in praxis ... I think the most powerful aspect of this book is its multi-disciplinarity, and its focus on engaging readers in discussion about reimagining pedagogical practices in what can now be viewed as the "New Normal" in higher education teaching and learning across Africa and the world. An excellent resource for the higher education sector.' – *Prof Xoliswa Mtose – Vice Chancellor, University of Zululand, South Africa*

'A sobering read for contemporary audiences who are not just in Africa but in countries engaged in a forever effort to keep the higher education sector afloat amidst the onslaught of the COVID-19 crisis, which incidentally has triggered new discourses about bringing digital technology and education practice into closer alignment.' – *Michael Lesolle – Former Principal and CEO of the Botswana Accountancy College*

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DEDICATION

We would like to dedicate this book to the following people:

The brave men and women in academia: Undoubtedly, the COVID-19 pandemic prompted decisions to close college and university buildings across Africa, UK and elsewhere around the world during the first wave of the plague. Higher education institutions, professors and lecturers have shown great resilience and tenacity in striving to compensate for the crisis.

Our family: You are the reason why we persevere through this book project. Your sacrifices allowed us to see the fruits of our labour. There is no way we would have accomplished the feat of pulling the project together without the space you gave us to work, even late into the night.

Beulah: At a personal level, from Byron to you, thank you for being my biggest supporter and best friend.

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Sarah Rawlinson joined the University of Derby in 1998 after a career in the travel industry, specialising in group travel. She was Head of the Centre for Contemporary Hospitality and Tourism at the University of Derby for over 10 years. Her professional interests include the development of curriculum models that support vocational learning and provide opportunities for students to learn how to bring theory alive and link it to practical application. She has been involved in developing opportunities for students to gain as much experiential learning as part of their degree to support their professional development and provide students with experiences that support employability and prepare graduates for industry. Her research interests include the demands for talented young people in the tourism and hospitality industry, the relationship between industry and higher education, the development of curriculum, work-based learning and the different use of knowledge in the workplace. She is also a reviewer for several academic journals and she continues to support PhD students.

Paula Shaw is the Associate Professor of Online Teaching and Learning at the University of Derby. Her career spans over 30 years in Further and Higher Education. For 20 years, she specialised in online education and operational management, which significantly influenced the University of Derby’s expansion of global online programmes. She developed and presented a ‘PROPHET Framework’ (Pedagogic Realignment with Organisational Priorities and Horizon Emergent Technologies) which ensures that horizon scanning, pedagogy, and educational planning are integral part of online students’ experiences. She is currently leading an 18-month Quality Assurance Agency (QAA) supported collaborative project to deliver a Massive Open Online Course (MOOC) flexible learning design toolkit, a digital exhibition of flexible learning, and an open-source module-planning tool.

Foreword

I am delighted to write this foreword as I believe that when we started the year 2020, nobody inside or outside academia could have imagined the world would have lived through such a crisis. On 11 March 2020, the Coronavirus Disease 2019 (COVID-19) was declared a pandemic by the World Health Organization. At that critical time, the vast majority of colleges and universities worldwide were in the midst of their academic year. As is now well known, the outbreak of the pandemic has upended higher education classrooms and campuses – causing many higher education institutions to close their buildings and change their status quo at the time, their pedagogy and ways of working, and has dramatically shaken up interactions with students in the learning environments, and caused education planners and policymakers to rethink matters pertaining, for instance, to physical infrastructure, international mobility as we know it, and mode of study – across Africa, United Kingdom (UK), and the rest of the world. Twenty-four months later, the COVID-19 crisis, has put the academic world under great strain and has brought to light the inflexibility of the higher education system in many countries across Africa, and elsewhere around the world. The devastation caused by the crisis will be felt for many years.

A crisis by its very nature calls for doing things differently and for doing different things. This is because the usual solutions prove wholly inadequate or inapplicable. It is in this context that the higher education sector had to move with great speed to find innovative solutions.

While the COVID-19 crisis has shown that the current higher education pedagogical infrastructures in colleges and universities in many countries are extremely vulnerable to external shocks, lived experiences have shown that many higher education institutions have been able to adapt in one way or another. Universities, colleges, and academics across the African continent and in the UK – like their counterparts around the world – have shown great tenacity, grit, and resilience in endeavouring to adapt and to make amends for the crisis, and although they need to be far more prepared for comparable crises in the future, they have undoubtedly exhibited innovation, leadership, resourcefulness, ubuntu, and the kind of agency that the academic community at large, policymakers, students, non-governmental organisations, and future generations can all learn from – both now and long after the COVID-19 emergency. One area where these qualities of adaption, resourcefulness, leadership, and ubuntu have manifested is higher education pedagogy.

I formed the impression from reading this exciting and thought-provoking volume that it was this notion, this sentiment, that in every system, like the university system, amidst crises such as the one caused by the COVID-19 pandemic, there would be professors, lecturers, and academic leaders in their various settings around the world, who were, against the odds, innovating and testing out new ideas to enable and sustain teaching and learning continuity and quality for students and the institutions. This book, edited by two experts in the fields of education, digital learning and computer science, with vast knowledge of the higher education sector, critiques and documents the literature and several case studies showing what academics have been doing, and could do, to sustain learning continuity during and after the COVID-19 emergency. It is an important contribution to understanding the pedagogical challenges and responses in terms of new approaches and technologies for teaching and learning that have been, or are still to be, implemented to sustain college and university teaching and learning as the sector rebuilds from the crisis.

On this basis, I find the book to be one anchored in praxis and one that brings to light two long held premises: first, when academics solve problems, they learn and often share that knowledge with others, so that, in the event the others experience the same problem, they can be assisted. Second, some insights, glories, and pitfalls about pedagogy and its theory and practices are best understood by those who actively shared in their development and implementation. The case studies illustrating new approaches and technologies for teaching and learning resonate with this point because they were written by the academics who led them. The book is a celebration of the work of these academics who were determined to prevent the complete shutdown of higher education institutions amidst the COVID-19 crisis.

The book, which is aptly entitled *Higher Education in a Post-Covid World: New Approaches and Technologies for Teaching and Learning*, elaborates on the fundamental changes and transitions in higher education, the emerging approaches, and practices in higher education pedagogy, and the culture and policy concerns in a COVID-19 higher education world. The authors have, remarkably, communicated powerful insights about their craft that lie as templates for teaching and learning in higher education now and in the future. The book assesses and documents the variety of approaches and technologies in teaching and learning that have been tried during the first and second waves of the COVID-19 pandemic. The volume can, in future, allow academics, policymakers, students, and historians to look back on this period of history with both quantitative and qualitative information, and perhaps with new ideas regarding how education might be reshaped in the future. The chapters of the book are wide ranging and advance the discourse, on the one hand, on various sources of pressures on higher education institutions to change and underinvestment in higher education infrastructure – especially in Africa – but on the other hand, the need for a spirit of innovation in higher education; the need for speedy experimentation in pedagogical approaches and the use of technology that characterised the pandemic; the willingness to, and importance of, widespread partnerships and collaborations across all types of organisations and across countries; and the readiness of higher education to

reimagine the utilisation of digital learning technologies and tools in education. The UK and Africa collaboration, which resulted in, for example, the writing of this book, is just one such example.

I think the most powerful aspect of this book is its multi-disciplinarity, and its focus on engaging readers in discussion about reimagining pedagogical practices in what can now be viewed as the ‘New Normal’ of higher education teaching and learning across Africa and the world. The higher education sector will not return entirely to the way it was before the COVID-19 crisis. Through the chapters of this book, readers can begin to explore new approaches and technologies of teaching and learning, outside the conventional classroom, and they can identify and apply the theories and concepts as they relate to them. By engaging readers in the discourse, they are motivated by the value of reflection. It is from reflecting on what has been learnt from the COVID-19 crisis that academics, students, policymakers, and civil society will be able to collaborate to rebuild higher education stronger and better.

The book embodies the essence conveyed in the phrase ‘never let a crisis go to waste’ – attributed to Sir Winston Churchill – because the editors and chapter authors have capitalised on the COVID-19 wave to illustrate how the higher education sector can embrace technology and reform traditional pedagogical approaches and practices now and in future. The pandemic provided the organisational energy and courage to embark on initiatives that would have been unthinkable in the pre-COVID-19 era. The pandemic provides academic leaders with an opportunity to unfreeze the university system to dispose of structures and processes that perhaps add little or no value and to find new ways – as the book aptly brought to light.

I hope this book will become a core text that everyone across Africa and the rest of the world can find stimulating, insightful, and informative.

Professor Xoliswa Mtose

Vice Chancellor and Principal – University of Zululand, South Africa

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Acknowledgements

The editors gratefully acknowledge the hard work, time and enormous effort that all our authors of chapters have put into the development and final preparation of this book, and in complying with the timelines that are unavoidably enforced in such a process. At the initial call for chapters, we received more than 30 chapter-proposals and after a careful review process, 20 were approved. Only 14 chapters made it to the final manuscript of the book that is published, not because the other chapters were inferior but because only the giants of the 14 chapters stood the test of the long journey over 12 months. Our deepest gratitude goes to each giant who authored these chapters and resisted the attrition temptation. It remains incredible to us that amidst the COVID-19 plague that rages on, we have managed to pull the project together and are able to share the fruit of this long labour.

Lest we forget, it is the COVID-19 pandemic that inspired the writing of this book. We have all witnessed how our pedagogical practices in the academy have been altered following the outbreak of the pandemic in early 2020. We thank all our contributors for theorising their lived professional experiences and bringing them to the pages of this volume. We learned so much from the case studies and substantive theories that reverberate through the discussions across the chapters, and it is because of the contributors that a new dawn in higher education pedagogy can begin to be imagined.

Our deepest appreciation goes to the many Vice Chancellors, Principals and Deans of universities and colleges in Africa and the UK who gave so generously of their time, knowledge and reflections through emails and telephonic discussions, as we pieced together our understanding of pedagogical reforms and innovations implemented in response to the lockdown of campuses and social distancing requirements, stemming from the COVID-19 health crisis. We would delightedly thank each one of these insightful, gifted academics by name, but for our pledges of anonymity and confidentiality. We also owe a debt of thanks to the Senior Librarian at the Botswana Accountancy Library for providing us with remote access to the numerous databases and for linking us with publishers with an interest in pedagogical practices in higher education. Thanks too to the Assistant Dean (Global and Academic Partnerships) in the College of Business, Technology and Engineering at Sheffield Hallam University for building the strong partnership and supporting my visiting Fellowship.

Several colleagues made invaluable contributions to this volume, each one epitomising the big-hearted, selflessness of true scholarship when we gather in

the service of ideas. We shall never forget these gifts. Dr Tebogo Magang has been an extraordinary colleague who read and commented on the drafts of several of the chapters, and helped us shape the final version of the manuscript. Dr Tsitsi Chipfuva graciously read and commented on a version of the manuscript and helped hone our understanding of key themes as they relate to teaching practical-based subjects virtually. Her generous comments made a vital contribution to this volume. Nelson Mandela University Research Professor Anass Bayaga read parts of the manuscript at an early stage, offering sage advice, insights and enthusiasm. York University Professor Ntonghanwah Forchew read parts of the manuscript and brought his immense conceptual grasp that helped with the shaping of the structure of the book. The Emerald team of Kimberley Chadwick and Rajendran Hemavathi brought their vast editorial talents to the manuscript. We worked with Kimberley to discover the final title of the book, and with Rajendran as our book project editor. Rajendran's collegiality and unparalleled mastery of craft helped us in finalising the manuscript. The Emerald team resonated with this project from the start and the team has been tireless in giving support.

Our deepest thanks also go to several other colleagues who encouraged us along the writing journey: Mrs Serty Leburu, Michael Lesolle and Beulah Molefe. Beulah Molefe tolerated many late evenings and holidays away as we pulled the manuscript together. In addition, a special thank you to our family members who have endured and tolerated our distracted personas during the preparation of this book. We can only hope that the final result justifies the faith that all our contributors and families, who supported us throughout the journey, have placed in our role as editors.

And finally, as authors and editors who have worked together over many years, providing collaborative education that connects Africa and the UK, we hope this project has strengthened our already strong working relationship. It is our wish that our relationship will act as an example of collaboration and partnership and that the links between the UK and Africa will continue to flourish.

In the end, one faces the page in solitude. Anything in this book that falls short of the trust invested in us as editors is entirely our responsibility alone.

Introduction: A New Frontier for Higher Education

Byron A. Brown and Alastair Irons

Welcome to this volume which has discussed and considered emerging approaches to teaching and learning in a COVID-19 and post-COVID-19 higher education world. The motivation for this book is the COVID-19 pandemic that has propelled higher education institutions (HEI) to rethink, redesign, and respond in real time. The dramatic closure of education institutions around the world raised several questions in terms of the adaptability and readiness of the HEI sector to adapt and respond to the changes. Since March 2020, higher education across the globe has been faced with unprecedented circumstances and challenges. The teaching and learning paradigms in higher education have been called into question as a direct result of the COVID-19 pandemic. For instance, social distancing among people to limit the spread of the coronavirus has stimulated and quickened immense changes in the way that education is delivered in many universities and colleges around the world. Many of these pedagogical changes were unsolicited and as academics adjusted to the changes forced upon them, key pedagogical lessons are being learned.

In this book, higher education teaching and learning practices are explored, with colleagues placing focus on a wide range of topics and issues that they confronted as they sought to manage and indeed enhance the learning and teaching environment in higher education following the global lockdown of the education systems due to the COVID-19 pandemic. The book draws on examples of good practice from around the world with contributions from academics and education practitioners from southern Africa and the United Kingdom. This publication aims to contribute to the academic scholarship around higher education pedagogy and the use of technology in higher education, while drawing on the literature of digital education and multiple modal learning, as they present evidence-based commentary. The book provides a critical reflection on the various lessons learnt and on the emerging teaching and learning approaches and models that are being utilised to support students to successfully achieve the planned learning outcomes of their courses in a COVID-19 and post-COVID-19 educational environment. It synthesises research from student-centred pedagogy, psychology, learning technology, computer-mediated-communication, and

cyberspace, and brings together many emerging and future-focussed models and practices in higher education teaching, learning, and administration. This work can both justify the need for educational policy for new pedagogical models in higher education and strengthen the academic voice in the continuing transition in higher education.

The research context for this book is universities and colleges in Southern Africa and the United Kingdom in the digital era and COVID-19. The lockdown in higher education as a result of the COVID-19 pandemic, on the one hand, has brought many challenges to the sector across the globe in terms of teaching, learning, research collaborations and institutional management. On the other hand, the pandemic has brought about an opportunity to implement change in higher education and as a result increase the sustainability and resilience of the higher education sector in the future. The lockdown has forced HEIs to reconsider the role of educational technologies and the pedagogical approach that educational technologies enable with particular consideration given to online learning and online teaching.

There has never been a time such as occurred during the COVID-19 pandemic, when the collective attention of the world has scrutinised higher education in such a focussed way. While the higher education sector has long recognised the need to continue to adapt, and to adopt new educational and smart technologies in learning and teaching, it has taken the COVID-19 pandemic to motivate largescale changes in pedagogical practices in many institutions in many parts of the world. For many, the change was rapid and unplanned. However, the implementation of sustainable pedagogical approaches requires careful thought to minimise pitfalls. It also requires broad consultation particularly with key stakeholders such as students.

A lack of student engagement can gravely affect the sustainability of any new pedagogical models that are rolled out. Furthermore, the unplanned changes in teaching and learning practices in many higher education contexts since the COVID-19 pandemic suggest a need to address policy gaps, identify appropriate digital learning approaches and tools, reculture academic staff to adapt to the new teaching situations, and ascertain student and institutional readiness to cope in a digital learning environment as an alternative to the traditional in-person learning environment.

The above-stated observations call for a reflection and reassessment of teaching and learning measures that have been implemented or the development of new measures. This book emphasises the urgent need to reform pedagogical models in higher education and the importance of recognising and utilising the power of computer-mediated-communication technology to expand the range of teaching approaches, practices, and learning interaction options in an age in which digital technology and electronic communication have become commonplace in the daily life of students and education practitioners. It also addresses the importance of supporting the individual student in learning communities where they are separated by space, and the need to safeguard their social and emotional well-being as they engage and learn through mediated-communication systems in an era of a changed higher education environment.

There is a growing body of research on the impact of COVID-19 on higher education. Examples from the literature and the impact that COVID has had on

practice include: [Watermeyer, Crick, Knight, and Goodall \(2020\)](#) – disruption; [Karalis and Raikou \(2020\)](#) – pedagogy; [García-Peñalvo, Corell, Abella-García, and Grande \(2020\)](#) – remote learning; [Rashid and Yadav \(2020\)](#) – online learning; [Wahab \(2020\)](#) – online assessment; [Rashid and Yadav \(2020\)](#) – research; [Montgomery et al. \(2021\)](#) – open-ness; [Weeden and Benjamin \(2020\)](#) learning pragmatics; and [Mok, Xiong, Ke, and Cheung \(2021\)](#) – international student mobility.

The literature on lockdown and COVID-19 and the impact on higher education indicates that there is concern that students, academics, and university administrators are suffering from digital fatigue in terms of learning, learning provision, teaching, and online meetings and communications. In addition to disruption and speed of change (which can also be good), concerns have been raised about changes in management style with a greater focus on top-down governance. In many parts of the higher education community there have been worries about employment – with potential drops in income from students in the country, but more so the decrease in income from international students as a result of restrictions on movement.

On the positive side of the impact of lockdown and COVID-19 there are benefits to students in terms of flexibility of learning, access to more online resources, and an understanding of the circumstances that they are having to overcome to manage their learning. For academic and administrative staff in higher education there are benefits to home working – a reduced commute time, greater flexibility, and a better work/life balance. The other side of this coin is that home working for academics potentially causes issues with isolation and increased stress as well as a different cybersecurity challenge. As well as academics, there have been concerns raised by students about the effectiveness of online learning, the lack of access to the full student experience, and anger that fees have not been reduced.

The development of networked video and meeting technologies and the development of educational technology came to the fore in dealing with lockdown. In utilising educational technology, it is argued here, and elsewhere in the book, that the technology is not an end in itself but an instrument to enable learning and to create appropriate pedagogical approaches. Educational technology should be used to support university and college business as usual and to underpin the pedagogic changes required as a result of lockdown.

This book is the first volume in what is anticipated to become a series of publications, developed around a Higher Education Pedagogy Series, with particular emphasis on improving higher education practice in the Africa context. This specific publication relates to practices and approaches in higher education teaching and learning, which as a sub-theme in the field, is a call to action for the coupling of new technologies (e.g., mobile devices and cyberspace), new pedagogies (e.g., student-centred paradigms), and new theories of learning (e.g., social constructivism) to enable entirely new teaching approaches to manifest.

Structure of the Book

This book comprises 14 chapters. Chapter 1 provides an overview of the concept of teaching and learning in higher education by discussing some of the key reforms

in the higher education context that have motivated academics to reconsider their approaches and practices of teaching and student learning and interaction in a digital world. In this book, the concepts of digital technology and pedagogy are prominent and, consequently, in this chapter they are contextualised within the wider scholarship around technology in higher education. In addition, the chapter explores the changing roles of students, academics, and administrators arising from reforms in pedagogical practices and learning environments.

Chapter 2 deals with pedagogical models of digital learning in the United Kingdom with a focus on online and blended learning, rolled out as a case study in one university. The chapter appraises the effectiveness of the model that implemented and foregrounded the evidence in the wider literature on models of digital learning in higher education. The chapter provides thematic analysis and methodological opportunities for improvement of practice and presents a set of implementation implications and pitfalls for HEIs in Africa to avoid. Furthermore, a number of trends regarding the blending of learning and communication synchrony in digital learning have also been identified.

In Chapter 3, building on an in-depth literature review, teaching approaches, social support, and student learning in the non-traditional classroom in higher education are considered in terms of the assumptions and principles that underpin digital learning, by identifying and proposing a conceptual model that can organise communities for online teaching and learning implementation. It explores the theoretical arguments underpinning the emerging approaches, and ways that, social support, as a key ingredient of student learning, can continue as an integral practice of the learning environment in cyberspace. The chapter also shows that by means of careful planning and redesign, digital teaching and learning technology can potentially enable the higher education classroom to transform into a participative experience – shifting from the old way (education 1.0) to the current way (education 2.0) or the future way (education 3.0), where teaching is seen through the lens of progressivism and co-constructivism, and the institution is perceived as an entity that can be located everywhere (e.g., online, at home, in the workplace, restaurant, internet café, at a designated campus, and so on) and fully immersed into society.

Chapter 4 investigates a case study of how gamification can be utilised for teaching a practice-based subject virtually for transformative impact. University teaching involves delivering resource intensive subjects that have practical components. One approach to delivering learning experiences in such kinds of modules is discussed. This research should be regarded within the context of expanding the horizon of pedagogy in a virtual context. The case-study design showed that a hospitality management module presented in this manner can challenge assumptions that block meaningful learning design and pedagogy.

Chapter 5 presents an analysis of the emergency remote teaching and online teaching in higher education and draws on primary evidence that involved an evaluation of the former implemented during the COVID-19 crisis. It is anchored on an in-depth systematic literature review that provides a theoretical explanation justifying the importance of emergency remote teaching in higher education practice, in light of the global COVID-19 pandemic and related discontinuities.

It offers a framework for evaluating the effectiveness of emergency remote teaching, with the emphasis on four dimensions: context, input, process, and outcomes. It provides academic practitioners who are operating within an emerging digital remote learning context with comprehensive guidelines for assessing the effectiveness of remote learning environments. Through this process, the aspects necessary to promote digital remote learning and upgrading remote learning to full online are also emphasised.

Chapter 6 presents an in-depth systematic literature review focussed on the critical shifts in pedagogy and flexible assessment. The thrust of the chapter is on flexibility in assessment in light of an increasingly uncertain higher education landscape and the availability of multiple modes of learning. The attributes of flexible assessment are considered in terms of the assumptions and principles of assessment in multimodal learning environments, by proposing an integration of technology with good teaching practice and learning theory in higher education. The chapter champions technology as a key enabler for a personalised and active blended learning experience, especially given the proliferation of learning technologies and tools coupled with the increasing diversification of student profiles and pathways through programmes. The chapter provides academic practitioners, within a multimodal teaching and learning context, with comprehensive and practical ideas and strategies for inclusive, authentic, and flexible assessment task design, delivering effective feedback, and ensuring quality and consistency within assessment processes.

Chapter 7 deals with a critique of the literature on blockchain technology in teaching, learning, and academic administration in higher education, and explores its prospects as a long-term solution for education management in emergencies in the sector. It reviews the trends from academic articles and industry-led studies related to blockchain technology in higher education pedagogy and administration, published mainly between 2010 and 2021 in the African and Anglo-American context. The chapter provides education practice gaps and opportunities in the literature where blockchain technology could benefit the African higher educational context. Furthermore, trends regarding the utilisation of blockchain functionalities to improve efficiency, security, and privacy in the execution of academic administration especially in student identification, student admission, degree certification, document authentication, and quality assurance in higher education – are also identified. The point is made in the chapter that the discourse on blockchain-based pedagogy coalesces with the push by many African governments towards a digitally transformed society and with the building of the smart university and college campus.

Chapter 8 provides a comparative phenomenological overview of the multiple stakeholders and issues that underpin the implementation of alternative pedagogical approaches, as derived from experiences of the South African context. The lived experiences of the dramatic closure of education institutions in South Africa due to the COVID-19 pandemic, the requirement of broad consultation in light of changes in pedagogical practices, and the concerns about access to digital learning and teaching in a diffracted context of digital literacy are presented in an institutional context, with a long history of resistance as well as in a context where

the remote digital learning and teaching approach was new and not mainstream. Consequently, the chapter reports on the voices of students and academics about how both their learning and practice in a period of unplanned change shaped their perspectives on education delivery in non-traditional spaces and on how to improve. The voices of academics affected by the abrupt shifting of their pedagogy from face-to-face to face-to-screen revealed distress and frustration, whereas the voices of students divulged discomfort and uncertainty about learning in virtual mode. The research determines that digital literacy, digital technology infrastructure and access, mental health support, and power generation can be enhanced in order to foster quality education in periods of emergency and beyond.

Chapter 9 is focussed on supporting and promoting student interaction and engagement without neglecting the significance of teaching and cognitive development in designing emerging remote digital learning environments. In order to achieve this aim, a comprehensive and systematic literature review had to be undertaken in which different forms of student interactions and engagement strategies were evaluated. This review determined that the right balance of synchronous and asynchronous digital learning tools contributes to fruitful interaction and engagement, and that the students engage not just with their professors but also with the subject content. The chapter reveals that a correct blend of digital learning tools, combined with elements of the appropriate engagement strategies, contributes to higher academic learning in the digital education space. Through this discussion, the aspects necessary to promote high interaction and engagement are also emphasised.

Chapter 10 presents research related to cybersecurity in the digital classroom, which highlights the significance of the topic in a higher education era dominated by digital natives. The chapter places the value of student data to cybercriminals into context in terms of the 'dark web' and demonstrates how in practice student data can be more valuable than financial data. Among the risks, the chapter reveals that student data can be a basis for the creation of fake IDs and for identity theft, an opportunity to link to academic fraud, and the potential for individual blackmail. Consequently, the chapter considers the tactics and approaches to embed cybersecurity in the classroom, and on educating students about cybersecurity. Applying the principle of least privilege, encryption, data management, and protocols when working with third party providers are among the most important measures.

Chapter 11 involves a systematic review study that further explores the safeguarding of online and personal cyber skills for students in higher education, amidst the trend among universities and colleges to deliver education online, and to make use of digital platforms for both formal and informal learning. To this end, an appraisal was done of the literature pertaining to the capabilities of HEIs to protect students from online abuse and support those who fall victim to it. In this chapter, the need for, as well as the value of, a more robust policy framework and improvement in practice around both awareness of, and support for the victims of, online abuse in the higher education sector have been highlighted. Both safeguarding policy and cybersecurity practice and training need strengthening. The chapter documents the various measures that universities and colleges can

take to develop student cyber skills and to support those at risk of online abuse, especially in a post-COVID higher education environment where hybrid learning is not just a possibility but an expectation.

In Chapter 12, education policy and regulation matters that have arisen as a result of the impact of COVID-19 on the higher education sector are explored through a systematic literature review, with specific focus on higher education in one African country, namely Botswana. Specifically, the policy and regulatory gaps and imperatives for rebuilding a sustainable African higher education system disrupted by COVID-19 are considered in terms of the macro and meso levels of society, by proposing a set of national and institutional policy, regulation, and strategy areas that need reform to guide future educational practices and initiative implementation. The chapter also shows that in view of the proliferation of digital technology tools and groupware in the delivery of education, higher education policy and regulatory frameworks should be strengthened and expanded in order to safeguard students and the institutions in the context of the 'new normal' in the higher education sector. A strengthened and expanded education policy and regulatory framework can potentially enable the twenty-first century fully digital or blended learning classroom to transform into a safe, dynamic, appealing, and interactive experience for students and faculty.

Chapter 13 explores the cultural expectations of and influences on teaching and learning in higher education and the extent that these can be achieved in a multimodal and digital learning environment, using the African context of Botswana as a reference point. The chapter can be viewed as an attempt to examine the situated and culturally appropriate nature of the current digital online and blended learning models of teaching and learning, whose implementation has been given unprecedented momentum by the COVID-19 outbreak. It situates learning and teaching styles and practices in the context of culture, drawing parallel with learning and the effects of individuals' upbringing on information processing. From this qualitative study, it was evident that despite some acknowledgement of diversity in the learning environment in cyberspace, students and academics do not knowingly include culturally appropriate practices and content in their pedagogical interactions online. Non-traditional pedagogical practices impinge on cultural norms, and certain expectations that families want higher education to achieve for their children. More support is necessary for situated and culturally appropriate teaching and learning in the digital education context.

Chapter 14 presents the summary and conclusions of the book, drawing on the central themes, issues, practices, and substantive theories that emerged across the chapters. It provides a concise synthesis of the research presented in this book. In essence, the chapter takes a step back to set out a series of key considerations for professors and lecturers based on the evidence and insights captured throughout this volume. But then, more crucially, the chapter moves to look forward by discussing the key developments and opportunities for change in the area of higher education pedagogy, particularly across Africa. The issues raised and solutions offered are taken as important themes to ensure that higher education models and practices in Africa are responsive to changing contexts and student demographics.

Contribution of this Volume

As the higher education sector looks beyond the lockdown and the challenges facing the ‘new normal’, there are many opportunities for the community to put in place what has been learned and implemented throughout the lockdown and campus closure period. Undoubtedly, the lockdown and campus closure period have dramatically affected higher education provision – most notably the shift to digital learning which changed the sense of on-campus life and atmosphere, and which ushered in a new set of expectations. However, as we move forward the uncertain environment for higher education will remain for a number of years to come. Indeed, we can plan for a whole series of ‘known unknowns’, but inevitably there will also be a further series of ‘unknown unknowns’ that have yet to come onto our radar.

Of course, it is folly to predict the future, but it seems clear that the higher education sector will not ‘go back’ to the way it was before March 2020, and that many of the changes and interventions that took place through the lockdown and campus closure period will become permanent changes as we come out of the COVID-19 crisis. As Mooko (cf. Chapter 12 of this volume) explains, the student experience, including that of the wider university and college experience, will be different to what it was before March 2020. The same is true of modes of study, academic provision, the nature of the academic skill set, and the future of universities and colleges.

We hope that you find this book a useful tool in your ongoing consideration of the changes that have been forced on us since the COVID-19 pandemic and the lockdowns and campus closure. Higher education in the northern and southern hemispheres has risen to the challenge in trying to ensure that students continue to have the opportunity to engage with their studies and that the academy continues to produce high quality graduates as the employees of the future. It is clear that we will not go back to the way things were pre-COVID, and that the journey of evolution and revolution in higher education will proceed. The need for academics, students, employers, and government agencies to work in partnership and collaboration will be the key to providing a successful, fit for purpose higher education system not just in Africa but the rest of the world. The interdisciplinary orientation of the book etches out a set of themes that can anchor dialogue for collaboration and partnership and for further rethought of the higher education practices, policies, and models.

This book does not suggest that there is a single best solution in dealing with pedagogy in higher education following the pandemic and the lockdowns and campus closure, because one size certainly does not fit all. The aim of the book is to encourage academics to think about what it is they are trying to achieve as they design education for the future, and as they seek to provide an enhanced learning environment for students, and to create spaces for fellow colleagues to be the best they can be. In order to achieve this, the intention of the book is to further provide a range of examples of good practice that others can use to develop their strategic and operational approaches to higher education. The authors hope that the chapters included in this volume, a consideration of the arguments made,