

TRANSITIONING VOCATIONAL EDUCATION AND TRAINING IN AFRICA

A Social Skills Ecosystem Perspective

Bristol University Press - ISBN 978-1-5292-2463-4 paperback- VET Africa 4.0
Collective

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The book, its structure and research base

Bristol University Press openly acknowledges the ground-breaking features of this first volume of the Bristol Studies in Comparative and International Education. The series editor summarises the ways in which the VET Africa 4.0 Collective of prominent authors and researchers challenge traditional, northern, conceptualizations of vocational education and training to insist on a broad, inclusive and sustainable concept of VET that addresses the conditions of Sub-Saharan Africa (SSA) and the challenges of the climate emergency and the Anthropocene. The book, with its multiple forward-looking layers, has implications not only for African VET, but for vocational learning globally. More about that later.

The volume comprises a total of nine chapters, together with an Afterword. It is not an edited volume as such, but a multi-authored effort comprising 10 contributors organised through what they term the 'VET Africa 4.0 Collective'¹.

- 1 Introducing VET Africa 4.0 - *Heila Lotz-Sisitka and Simon McGrath.*
- 2 VET and Skills in Africa: A Historical Sociology - *Simon McGrath.*
- 3 Water, Transport, Oil and Food: A Political–Economy– Ecology Lens on Changing Conceptions of Work, Learning and Skills Development in Africa - *Heila Lotz-Sisitka.*
- 4 Towards an Expanded Notion of Skills Ecosystems - *Presha Ramsarup and Jo-Anna Russon.*
- 5 Social Ecosystem for Skills Research: Inclusivity, Relationality and Informality - *Luke Metelerkamp and David Monk.*
- 6 Vocational Teachers as Mediators in Complex Ecosystems 97 *Jo-Anna Russon and Volker Wedekind.*
- 7 Challenges in Transitioning Processes 118 *Presha Ramsarup and Jo-Anna Russon.*

¹ Throughout this review the VET Africa 4.0 Collective will be referred to as either 'the 4.0 Collective', 'the Collective' or the 'contributors'.

- 8 The Role of the University as Mediator in a Skills Ecosystem 139 Approach to VET - *Heila Lotz-Sisitka, George Openjuru and Jacques Zeelen.*
- 9 Implications for VET Research, Policy and Practice - *Simon McGrath.*

Afterword: Towards a More Just and Sustainable Research Practice - *VET Africa 4.0 Collective.*

The chapters and Afterword are organised into three sections. Section 1 (Chapters 1–4) provides a historical and theoretical context, including the core theoretical tool of social ecosystems for skills. Section 2 (Chapters 5–8) explores and expands this model through the analysis of the data from the case studies using four dimensions of a social ecosystem model adapted from the work of Hodgson and Spours 2018, Spours 2019) – ‘facilitating verticalities’, ‘collaboration horizontalities’, ‘45-degree mediation’ and the impact of ‘ecological time’. Section 3 (Chapter 9) reflects on the implications of this approach for future research, policy and practice.

The volume comprises a rich conceptual mix that succeeds in integrating a radical economic, political and ecological vision with new theoretical and historical models. The expanded social ecological framework for skills has been used to explore four carefully chosen case-study sites in South Africa (Cases 1 and 2) and Uganda (Cases 3 and 4) that reflect tensions running through these SSA societies - first world economic development and extractive capitalist development together with the legacies of the segregation effects of apartheid and inter-communal conflict.

1. *eThekweni* is a metropolitan area to around 3.5 million people that has grown up around Durban with the fourth busiest harbour in the Southern Hemisphere, with a local economy that includes sugar, tourism, transport and logistics. The contributors were interested in exploring how this evolving skills system was responding to major national government policy initiatives around infrastructural development for economic development.
2. The town of *Alice* and its rural surrounds in the Amathole District in the Eastern Cape consists of marginal agricultural apartheid homelands that are now being affected by climate change and drought. The main focus of this case has been Amanzi [Water] for Food’ programme organising rainfed water harvesting and smallholder agriculture with the development being supported by a horizontally organised learning network.
3. *Hoima* in Western Uganda, which historically has been located far from the major economic and political centres of East Africa, is now the focus of petrochemical and gas production.

4. *Gulu* is the major urban centre in Acholiland in northern Uganda that was ravaged by 30 years of civil war. The war and its aftermath brought large numbers of humanitarian agencies to the region together with in a large number of programmes aimed at skills and agriculture development.

The road to VET 4.0

In the context of the legacies of colonialism, apartheid, and conflict in two Anglophone African countries (South Africa and Uganda), the contributors seek to engage in a global debate about the current weaknesses of VET, noting important differences between the Anglophone individualist model and a more relational model of VET found, for example, in Nordic and Germanic systems. However, they do not restrict their critique solely to the Anglophone approach but go further to question the development of VET grounded in extractive fossil capitalism. Based on VET models being implemented in the two case-study countries and more broadly in the SSA they argue that these are severely out of sync with contemporary experiences of work, having failed to include those who are economically active in the 'informal' economy. Nor do they currently consider the work needed for transformations to support sustainable development.

This critique of modern VET is more extensive than arguments raised against the neoliberal orthodoxy of skills supply in Anglophone systems. As a result, they proceed further than the skills ecosystem and skills utilisation approaches responding to the skills supply model (e.g. Keep, 2016; Buchanan et al., 2017), arguing that the multiple rationalities of the SSA context require a new conceptual model of skills. But more ambitious still is the claim that their expanded social ecosystem model of skills is relevant not only to Sub-Saharan societies but also globally. Going beyond critique, and with a focus on transport, oil, water and food systems, the contributors state that they are looking for a new relational VET model for Africa to open up future work for sustainable livelihoods and economic development in differing systems. They proceed to argue that taking account of these multiple rationalities must overcome the segmentations of living, working and learning in order to bring these dimensions together into an expanded social and ecological framework.

The first step in developing a new social skills paradigm is the periodisation of VET that introduces the concept of Africa VET 4.0. While grounded in the historical experience of Southern African systems, Africa VET 4.0 points to a break from the existing neoliberal paradigm of VET that has implications more widely. Following independence in the 1960s and post-colonial legacy VET 1.0 remained in the shadow of academic education. In the 1970s VET 2.0 grew out of concerns of youth unemployment with a

subsequent shift towards a community-based development and adult skills. Newly independent African governments were finding their voice. But this authentic effort was swept aside in the 1990s by the VET 3.0 paradigm with its focus on quality assurance regimes, outcomes-based funding, competency-based curricula and NVQ frameworks that originated in neoliberal Anglophone systems. In this technicist model, VET has continued to play second fiddle to the expansion of academic secondary and higher education thus limiting its impact on young people and on local economies.

Africa VET 4.0 marks a point of departure with the VET 3.0 policy toolkit by challenging the conventional boundaries between the research worlds of vocational learning and lifelong learning and the narrow conception of work for formal employment in the neoliberal tradition. With its focus on inclusion, relational VET and sustainability, this expansive view of VET draws on Swilling's work on transitions (2020), envisaging that Africa VET 4.0 will need to be part of social, techno-industrial and ecological transitions underpinned by political–economy–ecology analysis. It is through this broader conceptual approach that VET 4.0 may be able to break through not only African contextual specificities but become relevant to VET systems globally.

From Skills Ecosystems to an expanded Social Eco-systemic Model

The conceptual framework used throughout the volume involves an expansion of recent ecosystem concepts of skills development - a conceptual innovation which links the supply and demand for work-based skills demand in a dialectical relationship. While still very relevant, the 4.0 Collective were interested in moving beyond this model so as to address the specificities of the SSA contexts. Recognising that the skills ecosystem model in its Australian originator context has been constrained by neoliberal growth model in the workplace (Buchanan et al., 2017), the 4.0 Collective are interested in an approach towards skills ecosystems that embraced the dimensions of working living and learning as a place-based orientation in support of inclusive sustainable development in regional economies. They have set about adapting a Social Ecosystem Model (SEM) (Hodgson and Spours, 2016; 2018; Spours, 2021) originally developed in London's metropolitan environment to reimagine the spatial features of the city in which working, living and learning could be experienced more locally. This idea has emerged as part of urban planning policy in the UK and the US in the form of '15-minute cities/20-minute neighbourhoods' (Royal Town Planning Institute, 2023).

The 4.0 Collective have applied the principles of SEM in order to conceive of the relationship between working, living and learning that recognizes that economies, labour markets and skills formation systems are embedded within wider social, spatial and ecological contexts in which a broader range of actors have legitimate voice. What they now term the 'Social Eco-systemic Model' also involves an important role for learning institutions - technical education and training, further education and training colleges and universities - in nurturing potential skills development pathways into local economies and acting as innovation hubs. As such, they see that the social model has the potential for the development of a complex ecosystem of knowledge, learning and work-based engagement.

In the process of adaptation, the 4.0 Collective have developed its four dimensions – 'facilitating verticalities' (e.g. state structures and strategies); 'collaborative horizontalities' (e.g. networks); '45-degree mediation' (e.g. the connective roles of educational institutions and key local actors) and 'ecological time' – in search of an expanded and more integral conception of skills in SSA contexts. Used as a conceptual and evaluative tool, the contributors quickly concluded that 'facilitating verticalities' tended to be experienced as top-down impositions by external organizations such as the World Bank and other international donor organizations. In response they did not abandon this dimension of the model, but have argued that there is a need for a more dialectically related approach to mobilize facilitating verticalities to link learning, living and work experiences in more realistic ways. Exactly how this might be done remains a challenge for the model going forward.

An important focus of analysis has been the nature of 'collaborative horizontalities'. Hodgson and Spours associated this dimension with the network dynamics of civil society (in contrast to the verticalities of the governmental state). However, the Collective, mindful of and realities of the lives of Africans' working microenterprises and families in the informal economy contexts, associate the horizontal with what they see as complex webs of relationality of families and civil society structures. It is these fundamental material realities that provide the rationale for the adoption and development of the social eco-systemic model.

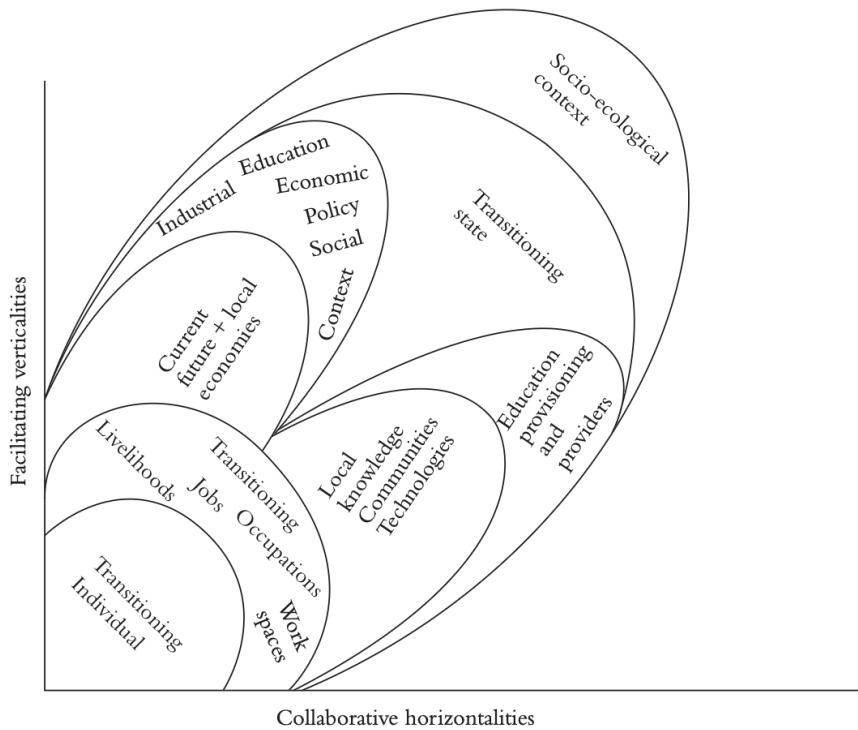
The third dimension – '45-degree mediation' – has also undergone reinterpretation with civil anchor institutions, which are both few in number and relatively small, being supplemented by 'network catalysts' including a role for key mediating actors. Interestingly, they pose the question not only as to 'who can mediate', but 'what mediation processes can be collectively developed'. Here particular attention is paid to the role of the vocational teacher who may be able to cross boundaries between the world of education

and the world of work to help the student to make these connections. In this connective role they recognise the urgent need for an expanded notion of a vocational teacher and the centrality of this role in social skills ecosystems.

The fourth dimension of ‘ecological time’ has also been given a new twist. The chrono dimension was originally seen by Hodgson and Spours as offering space for ‘ecological development’. However, the contributors provide ‘time’ with an additional critical edge to include engagement with hidden structures, mechanisms and power relations.

The result of multiple adaptations is a newly populated and expanded social ecosystemic model of skills (Figure 4.2 of the volume, p 72), capable of locating and conceptualising the role of individuals, networks, policies and contexts. Moreover, all of the forces and realities within the adapted approach can be conceptualised as being in a process of expansion and transitioning through ecological time along a 45-degree axis between the vertical and horizontal dimensions of the modern expanded state.

Figure 4.2: Expanded social ecosystem for skills model



The concept of transitioning as a process of radical change threads its way throughout the volume in a multi-scalar approach. As illustrated in Fig 4.2, these range from the often fragile and exclusionary transitions of individual learners, through to the transitioning of jobs and livelihoods supported by the transitioning of knowledge, local economies and providers and the transitioning state. The dynamics of transitioning are seen to be aided by inter-institutional boundary crossing between formal and nonformal learning experiences, developing what they refer to as ‘relational agency’; a collaborative ethos enacted through regional horizontal connectivity between VET institutions, universities, NGOs, business foundations, youth organizations and other societal actors. Interestingly, they view the university as a potential major mediating force and contributor to the local economy, community and skills system because they have been historically stronger organisations than technical colleges in SSA contexts.

Where next for Africa VET 4.0?

Reflections from the Afterword

The contributors are not only ambitious but are also modest in the assessment of efforts thus far, viewing the development of Africa VET 4.0 and the Social-Eco-systemic Model as very much work in progress. This process of critical reflection forms the basis of the Afterword.

While they are anxious to see radical changes in SSA VET systems, the 4.0 Collective are very much alive to the challenges. A notable reflection concerns the difficulties of the African context (notably neo-colonial legacies and widespread poverty) which encourages a view of history as a non-linear story. They use these reflections to point up perceived limitations in the Spours version of the social ecosystem model. In particular, they take issue with what they see as idealised aspects of his model with its assumptions of a developmental state and of historical linearity. In contrast they problematize blocked transitions and highlight nonlinear processes underpinned by intersectional inequality. As part of this critical process the contributors adopt a questioning approach to explore the constraining effects of wider contexts. For example, rather than simply attempting to locating potential mediating forces, they ask the question as to how effective mediators might be collectively assembled out of a context of relative weakness. These types of question are asked at different points in the discussion of the expanded social skills model that signals a new stage of development of the Social Eco-Systemic approach in which it moves from being an outline model to a ‘mode of analysis’.

The Afterword also reflects on a new language for thinking about VET policy and practice that links knowledge and skills development to not only better work, but also sustainable livelihoods capable of living in harmony with other species and with the planet. In doing so, the Collective introduce a strong ethical language into the new paradigm with a recognition that neither marketized individualism nor state-led development will provide solutions. Instead, they reaffirm their belief that the highly relational Social-Eco-systemic Model is a promising way forward for Africa VET 4.0. At the same time, they do not downplay the influence of wider socio-economic, ecological and political contexts. As Fig 4.2 shows, these macro factors form an active outer layer of the model. Moreover, as part of a constant process of reflection, the contributors draw on Bhaskar's (1975) notion of an 'immanent critique'; combining a critique of the current state of VET with a vision of what a future better VET might look like based on emerging visions of a better world.

Applying Africa VET 4.0 more widely – three additional issues

The contributors claim, and with good cause, that the Africa VET 4.0 model has relevance not only for African VET systems but also more widely. But this leads to a paradox. A real strength of the volume is the close relationship between the expanded conceptual framework and the four case-study sites. An evidence-based Africa VET 4.0 is seriously grounded in African contexts. The obvious question, therefore, is what needs to be developed for the new VET paradigm to become globally significant? Here I suggest three issues to be addressed – differing models of VET 4.0, the role of the Fourth Industrial Revolution and that of the Just Transition – to assist in its wider international application.

From Africa VET 4.0 to Global VET 4.0 - the periodisation that led to Africa VET 4.0 came from a historical analysis of SSA conditions with the first two phases particularly rooted in post-colonial contexts. However, the VET 3.0 neoliberal toolkit has been adopted in Anglophone influenced systems as part of the Global Education Reform Model (Sellers and Lingard, 2013). It thus is more globally prevalent and a point of departure for many VET systems in the global north and south. A major power of the Africa VET 4.0 analysis is the insistence that conceptual frameworks are applied to national and regional contexts rather than assuming wider relevance. Nevertheless, if VET 4.0 is particularly associated with a post-neoliberal and post-Anthropocene approach, then a challenge is to test its features and values in relation different typologies of national systems and their possible futures. One approach here might be to think about its relevance in relation to the major global models of education that encompass VET systems (e.g. Anglophone neoliberal models; Nordic and Germanic partnership or relational models and State-led Asiatic

models) (Sahlberg, 2011) that comprise both varieties of capitalism (Thelen, 2012) and differing relationships between governmental state and civil society.

The role of the Fourth Industrial Revolution (4IR) – the era of digitisation, artificial intelligence and machine learning are not entirely absent from the volume but remains understated in the current work. This is quite deliberate because the 4.0 Collective sought to identify Africa VET 4.0 with the aim of sustainability rather than technological change. But if the model is to be applied more widely and also to embrace what is coming in Africa, this will have to change. Presently, there are differing versions of VET 4.0. In Germany, for example, VET 4.0 is directly linked to Industry 4.0 and the development of digital competencies (CEDEFOP, 2015). If, on the other hand, the aim is to eventually promote a single yet diverse overarching framework, one possible route is that the Africa VET 4.0 framework proceeds to incorporate a 4IR dimension. However, as a partner to the sustainability vision, this version of 4IR will require the support of wider conditions for its development. The point is that context is all important. Avis (2020), for example, reminds us of the mediating effects of wider capitalist relations that have thus far constrained the potential emancipatory potential of technological change and to render the mainstream 4IR model (e.g. Schwab, 2018) as an ‘ideological construct’. In response, the ‘political-economy-ecology’ framework, of the 4.0 Collective could expand further with a radical technological dimension being added to its analytical lexicon while, at the same time, posing the question as to exactly how a socially just 4IR can be developed in African contexts.

From the Just Transition to Just Transitions – the idea of a Just Transition (JT) is ever present throughout the volume although the contributors are aware that it remains under-developed. Broadly understood as the pursuit of ‘climate justice’, the Just Transition can be seen as a combinational and overarching concept that brings together the transition to net zero with social justice to protect the most vulnerable (Pianta and Lucchese, 2020). As with the 4IR, there are more and less radical versions. The transformatory versions of the JT envisage a new set of post-neoliberal global economic, social and ecological relations (Climate Justice Alliance, 2021), and it is not difficult to speculate with which version the 4.0 Collective would identify. In the meantime, however, the concept of the JT is subjected to an interesting treatment within the expanded social eco-systemic model. The multiple scalars of the expanded social ecosystem model provide the terrains for different kinds of transition – transitioning individuals, communities, localities, jobs, policies, the state and so on; thus their reference to ‘Just Transitions’ as a multiple phenomenon. This simple linguistic device helps to clarify further a multi-scalar understanding of ongoing

work on the role of the JT in relation to further and higher education and local and regional economies (see Spours and Grainger forthcoming).

By way of a conclusion

Even in its highly African contextualised form this volume marks a breakthrough in how we can see VET for the future. It takes us beyond important arguments of skills supply and utilisation in the Anglophone context and into new realms of vocational purpose in the era of the Anthropocene. However, to realise this potential will require new collectives and dialogues in order to fully establish the far wider relevance of VET 4.0. Various collaborations around the theme of skills ecosystems have contributed to the new expanded model and VET paradigm (e.g. joint writing with Buchanan in 2020 and seminars with Spours in 2021) and it is these types of extended collaborations that can take the work forward.

While the volume can be regarded as research and writing of the highest order in terms of method and scope the concept of Africa VET 4.0 should be seen, as the contributors recognise, as in its early stage of vision and analytical development. But this recognition of work in progress is not just related to under-developed dimensions and the challenges of up-scaling. A greater challenge still is the long-term task of transforming the complex technical systems of VET 3.0 - curriculum and qualifications systems and labour market regulatory regimes – into a more inclusive and collaborative frameworks. And more challenging still are creating shifts in wider political and economic contexts to build new green economies and to popularise the Just Transition(s). But even in its early stages, Africa VET 4.0 provides a mode of analysis for the development of a new expansive model of vocational learning that addresses not only the shortcomings of individualistic and performative Anglophone models but, crucially, seeks a common and sustainable path for all VET systems beyond the service of fossil capitalism.

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