



Skills futures in Africa

Simon McGrath¹

Accepted: 6 September 2022 / Published online: 20 October 2022
© The Author(s) 2022

Abstract The UNESCO International Commission on the Futures of Education imagines a positive future in which skills development can be harnessed for the benefits of people and planet, in line with the loftiest vision of the Sustainable Development Goals. However, skills systems often remain marginalized within educational debates and plans, with vocational learning often dismissed as low quality and low status. Reflecting on the work done for the commission on future skills, this article considers the nature of the challenges of the present in building better skills futures for Africa. It argues that we must be clear-sighted regarding the failings of past theory and practice if, together, we are to construct better futures for learning, working, and living. Only then can we develop institutions, programmes, and curricula that can meet the challenges and realize the opportunities of the future.

Keywords Africa · Skills, skills ecosystems · Sustainable futures · Vocational education and training

The International Commission on the Futures of Education ((UNESCO 2021) outlines the challenges and possibilities of how education can contribute to better global futures, building on the legacy of the earlier Faure and Delors reports (Delors et al., 1996; Faure et al., 1972). In a background paper for the commission, Buchanan et al. (2020) consider “the futures of work: what education can and can’t do”. Their question will be a lodestone for this article, which considers what the African dimension of the debate about skills futures is, and what this implies for attempts to facilitate the wider process of an education that better meets the needs of people and planet, and the achievement of sustainable and just

✉ Simon McGrath
simon.mcgrath@glasgow.ac.uk

¹ School of Education, University of Glasgow, St Andrew’s Building 11 Eldon Street, Glasgow G3 6NH, UK

futures for all. (All references in this article to “Buchanan et al.” refer to their 2020 work, cited in this paragraph.)

In what follows, I build upon the Buchanan et al. analysis to create an account of the biggest trends shaping skills futures in Africa. This provides the bounds of the current possibility of what skills in Africa could do for sustainable futures. I place much attention on public vocational education and training. However, a major thread of my argument is that these need to be seen as an element of wider skills development systems.

There is too much sloppy thinking about such futures. Too often, notions such as the “fourth industrial revolution” are seized without any nuance and then taken to argue that education and skills development in Africa must and will be transformed rapidly to fit this imagined future. Such flights of fancy inevitably lead to failure. To build a bridge to a sustainable future, we need to have a strong foundation in what is already present, including shoring that foundation up where it is weakest. A considerable body of academic and evaluation work exists on the state of skills in Africa—e.g., Allais et al. (2022), McGrath et al. (2006), SADC/UNESCO (2013)—and it points to a system that is fragmented. The system contains pockets of excellence but also faces many issues that require attention before stakeholders embark on ambitious plans for the future. This situation needs to be understood within historical patterns of colonial and post-colonial formation of states, economies, and education systems. Understanding where current skills systems come from is vital to understanding where they might go in the future.

Underpinning these weaknesses are serious failures of policy and theory. We will have to address these if we are genuinely committed to skills development for sustainable African futures. For more than a quarter-century, a “toolkit” imported from the Global North and particularly from Britain and Australasia has dominated African skills policies. This imported toolkit has damaged the skills systems in those countries and has failed to deliver on its promises across Africa. However, widespread evidence of failure has had little impact as governments and donors continue to draw on the toolkit.

Part of the problem here lies in the underpinning theoretical approach, which is a combination of neoclassical human capital theory and neoliberal new public management notions of governance. Both are grounded in Anglo-American notions of atomized individuals, free markets, and small states that are far from either the realities on the ground or African philosophical traditions about the individual’s relationship to others, to creation, and to the divine.

Thus, any new imagining of skills futures in Africa requires a grounding in alternative theorizations. In this article, I will briefly explore a set of largely compatible and complementary theoretical approaches to thinking about skills in Africa. This will allow the construction of a new account of how to build African skills systems to support just transitions.

African skills futures and the megatrends

Buchanan et al. identify four megatrends that they consider central to any debate about skills futures. All are pertinent in African contexts, although they exhibit particular characteristics and dynamics there. These are: the climate crisis; changing life courses; changing technologies and divisions of labour; and changing levels and forms of inequality.

How are these likely to affect Africa, and with what implications for delivering skills futures?

The climate crisis

In April 2022, the UN secretary general wrote a stark opinion piece for the *Washington Post* in response to a new report from the Intergovernmental Panel on Climate Change, noting that:

the reality is that we are speeding toward disastrous global warming of more than double the limit of 1.5 degrees Celsius by 2100, as cited in the Paris agreement of 2016.

In concrete terms, this means major cities under water, unprecedented heat waves, terrifying storms, widespread water shortages, and the extinction of 1 million species of plants and animals. (Guterres, 2022)

This prognosis means devastating consequences for Africa. Parts of Africa have already been experiencing changes that are more rapid, with impacts that are more severe, than the global average, and predictions suggest that this will continue. African temperature increases are projected to be up to three times the Paris maximum and will have significant implications for water resources, food security, natural resource management, human health, settlements, and infrastructure (VET Africa 4.0 Collective, 2023).

Whilst official documents are full of talk of green skills, much of this amounts to greenwashing. Indeed, the reality is that modern skills development is implicated in fossil capitalism (Malm, 2016), and it will be difficult to extricate it therefrom.

Changing life courses

Here, Buchanan et al. highlight three key variables: life expectancy, levels of educational attainment, and women's workforce participation.

Life expectancy in the Global South has increased significantly over the past century. Whilst some African countries saw this progress stall in the face of the AIDS epidemic in the 1980s and 1990s, growth has accelerated recently. From 50 in 2000, mean life expectancy at birth in Sub-Saharan Africa had risen to 62 by 2020 (World Bank, n.d.). (All data quoted in this section are from the World Bank databank, World Bank Open Data: <https://data.worldbank.org>).

Trends in educational access have been even more striking. The 1990 global commitment to education for all coincided with changes of government in several African countries, leading to increased commitment to primary education both by African governments and by donors. Although schools experienced high student attrition rates, particularly in the most rapidly expanding systems, this was reflected relatively quickly in enrolment growth at both secondary and tertiary levels. Net primary education enrolments in Sub-Saharan Africa are now at 78%, with 18 countries at over 90%. The mean secondary net enrolment rate in Sub-Saharan Africa has increased from 21 to 36% since 2000. Gross tertiary enrolment rates have more than doubled since 2000. These rises have led to a narrowing of gender gaps in many countries. Indeed, the gender-parity index for primary and secondary enrolments was 0.94 in 2019, as compared to 0.84 in 2000. However, it should be noted that these enrolments historically have included some regional differences, with parts of Southern Africa historically lagging in boys' enrolment and retention, whilst girls' enrolments and retention have been lower in North and West Africa.

Data suggest that female labour market participation rates actually have fallen relative to male since 2004. However, the data are hugely variable across countries in ways that are not easy to explain. Moreover, such data are highly problematic given that most work across Africa remains in the informal economy.

As Buchanan et al. argue, increased ageing, educational attainment, and female participation together transform labour supply globally. This largely applies in Africa, though with significant regional variability; further, this supply is still constrained by historical and continued inequalities, as is the demand for this labour. There has been talk of a demographic dividend for Africa arising from its large numbers of youth (e.g., Drummond et al., 2014). However, we need to see this as potential rather than inevitable. Moreover, in the discussion, below, on the current state of skills development in Africa, I note concerns that the expansion of education is having negative effects on public vocational education and training (VET) in particular.

Changing technologies and divisions of labour

Although there are debates about its extent and meaning, largescale technological change is occurring. Elements include the scale of generation and use of information, and the range and scale of ways in which information and communication technologies are applying data across social, economic, and political domains. “Big data”, artificial intelligence, and robotization are all important dynamics that require addressing. However, some contest whether this amounts to a “fourth industrial revolution” (Avis, 2020). We certainly do not need to accept at face value some of the more extreme arguments about the extent of trends such as robotization. Nor should we simply believe the techno-utopian language about the freedoms that will come in the wake of these new technologies. Rather, as Zuboff (2019) cautions, we need to be wary of the ways in which the new technologies can be used to increase surveillance and reduce autonomy and democracy.

As Buchanan et al. note, the ways in which new technologies play out in the world of work is never simply determined by the technologies. Rather, “[t]he ultimate configuration of jobs and occupations depends on social and political choices within the possibilities created by technology” (Buchanan et al., 2020, p. 6). Thus, the key challenge regarding work futures is how to build more progressive choices. Education clearly has a role to play here.

In the North, there are widespread concerns that technological changes will seriously undermine artisanal jobs. Indeed, this has led many commentators to argue for the necessity of basic-income grants, as there simply won’t be enough decent jobs. This poses an existential challenge to VET. However, this debate can only take us so far in African contexts, although existing pressures on mid-level employment are likely to continue. The rhetoric of some African governments about “skills for the fourth industrial revolution” is highly implausible outside of some very specific and small-scale contexts. Nonetheless, new areas such as digitalization are relevant in many formal sector settings. More pertinently, though, we need to examine what this might mean for a continent in which the vast majority of work will continue to be in the informal sector. This should direct our attention to those segments within the African informal economy where new technologies are being adopted in learning, producing, and selling (VET Africa 4.0 Collective, 2023).

Changing levels and forms of inequality

As Buchanan et al. state, recent decades have seen a welcome reduction in income and wealth inequality between countries. However, rising levels of inequality within countries has undermined the Global South's apparent "catch up" in this regard. In Africa, levels of inequality vary considerably across the continent, with Southern Africa characterized as generally having much higher levels of income inequality than other regions.

Powerful forces make it likely that inequality will rise, not fall (Milanovic, 2019; Piketty, 2014). The new technologies discussed above can make a positive difference but are more likely to make things worse given the political economy in which they are deployed. Not only do these new technologies have the potential to lead to fewer formal jobs but they could lead, as well, to reduced quality of those formal jobs that do remain. Equally, education and skills development can be elements of a positive response to inequality but are frequently used to justify, protect, and deepen inequality. Who gets access to which forms of work and learning is a crucial question in understanding the likely trajectory of inequality.

The state of African vocational skills development

It makes no sense to imagine bright skills futures in Africa without a sober consideration of the present state of vocational skills development. Moreover, it is vital to see the present in part through the lens of the past. Therefore, I begin this section with a very summary account of developments in African vocational education and training since independence.

The transition to independence in the mid-1950s to mid-1960s saw massive growth in academic education. Skills development received far less attention. Nonetheless, governments had some understanding that the expected industrial take-off would require the localization of middle-level skills capacity through investment in public VET. This was conceived of as a limited programme of high-quality provision through a mixture of public colleges and apprenticeships in parastatals and large transnational firms that would mirror the skills formation systems of colonial masters (particularly in British and French colonies) (McGrath et al., 2020b).

However, the initial optimism about take-off gave way to a realization of the challenges Africa faced in integrating into still largely Northern-dominated political and economic systems. By the mid-1960s, schooling growth was far outstripping formal employment growth, leading to concern both about "overeducated" youth and a rapidly growing informal economy. This led new programmes to focus on rural skills, on "upgrading" traditional apprenticeships, and on skills for "appropriate" technologies. At the same time, many donors pushed for the insertion of vocational subjects into regular secondary schooling.

The rise of education for all saw public VET demoted in policy importance by most donors. However, some lending and aid did continue, becoming more conditional on doing what the donors wanted—and what they wanted was to use a new VET toolkit, drawing on policy reforms in Britain and Australasia (McGrath & Lugg, 2012). This approach used a rhetoric of institutional autonomy but actually controlled public providers far more directive through a new set of approaches. These included much clearer targets, quality assurance regimes, and outcomes-based funding; privileging the voices of the business community at local, sectoral, and national levels; and competency-based curricula and national qualifications frameworks. There was a stronger focus on supporting private provision and in building sectoral skills coalitions through sectoral skills councils.

This brief historical account helps explain the current situation of fragmented skills systems that are inscribed with the history of multiple interventions, often external in origin. Whilst pockets of excellence do exist in these complex and complicated systems, they are weak overall (Allais & Wedekind, 2020).

The VET toolkit has failed in Africa (Allais, 2020; McGrath et al., 2020b). The problem largely lies outside the skills system, as Buchanan et al. note. African VET reforms have been heavily donor-led, and attempted in under-resourced skills systems trying to interact with weak industrial sectors. The reforms misrecognize what they are trying to solve. The plethora of new structures at national, sectoral, and institutional levels are designed to bring industry and education together on the assumption that the lack of formal structures was, very simply, what caused the problem of limited relationality within Anglophone VET systems. Leaving aside their limited successes in Britain and Australasia, these reforms misread both the complexity of relationships with the far more complicated African skills systems and the nature of the underlying economic and social structures. Gazetting formality does not actually bring it into existence.

Equally, internal political considerations mean that an education logic has increasingly dominated public VET (Allais, 2020). What matters to ministries of education is growing supply rapidly, something they can largely control, rather than focusing on what industry needs, over which they have little control. Thus, whilst public providers grow and proliferate, the key institutions of the vocational system do not significantly strengthen.

Policy logic assumes that bigger public VET systems mean better skills, better economies, better work, and better lives. This is fallacious. Moreover, more than 25 years since these reforms began to be implemented there is very little evidence of their success. Yet governments and donors remain committed to them and, indeed, continue to roll out elements of the programme, apparently regardless of the evidence (Allais, 2022; VET Africa 4.0 Collective, 2023).

This picture of the formal, public VET system finds parallels in other elements of the VET system. The idea of vocationalizing secondary education is again being discussed, even though the previous wave had been judged a failure. There is considerable excellence in enterprise-based training in many African medium to large firms, but this is largely operating in spite and independent of state initiatives. The new intermediary bodies are largely weak, and levy-grant schemes have very limited financial leverage in underdeveloped economies (Allais, 2022). Interventions in the skills formation system of the informal sector, too, have produced little evidence of sustainable change (Palmer, 2020). Here, also, we see a gap between the logics and cultures of donor-driven interventions and those of informal sector actors. Equally, agricultural colleges have largely failed to address the realities of both small-scale agriculture and the emerging agroecology/organic sector, even though Africa has more than 200 million smallholder farmers who are the mainstay of African food production (Brown & Majumdar, 2020).

This is not a council of despair, however. There are ways in which skills provision in Africa can contribute to better futures for its people and environment. However, it is vital that we remember, as Allais noted a decade ago, that skills cannot save us (Allais, 2012). And it is crucial that we understand where skills systems have come from and where they can realistically go.

Emerging theoretical approaches

The current policy failures must, in part, reflect a failure of the theories that underpin them. Moreover, these theories have been fundamental to the creation of the present worldwide climate crisis. Therefore, it is necessary to look at alternative theoretical approaches that might inform the development of African skills approaches that can contribute to human flourishing and just transitions. Three main strands of recent skills research in Africa are worth highlighting (cf. McGrath et al., 2020a, 2020b; Rosenberg et al., 2020). These are increasingly intertwined (VET Africa 4.0 Collective, 2023).

Skills ecosystems thinking

Building on the well-established political economy of skills, recent work has adopted a social ecosystem for skills approach. The political economy of skills literature strongly reminds us about the historical evolution of skills systems and the resultant need to understand the limitations and possibilities of change. The social ecosystem for skills variant (VET Africa 4.0 Collective, 2023) builds a stronger multiscale approach that acknowledges the importance of sectoral and place-based dynamics, which often intersect. It also acknowledges the imperative in Africa of moving beyond a formal sector-only focus to bring in more of the informal sector, and community and rural dimensions (Wedekind et al., 2021).

Skills for just transitions

A literature on skills for just transitions has emerged in response to the climate crisis (e.g., McGrath & Powell, 2016; Rosenberg, et al., 2020). Rather than talk about just transitions in abstract terms, this literature seeks to explore what types of skills, work, and industries need to develop if we are to overcome the climate crisis, and how societies can achieve such transformations. Importantly, this approach has been used across a range of sectoral types and different geographic settings, spanning rural and urban; formal and informal.

Critical capabilities approach to VET

The third potentially useful recent strand of skills research on Africa is the critical capabilities approach (e.g., Johnstone & Schowengerdt, 2022; McGrath et al., 2020a; Powell & McGrath, 2019; Tikly, 2013). This sees vocational learning in an expansive way; rather than focus on narrow employment or employability, it understands these as means to a greater end of sustainable development, increasingly mirroring just-transitions language.

The critical capabilities approach seeks to balance structure and agency, asking both how factors such as multidimensional poverty and gender inequality have shaped vocational learners' lives and to what futures they aspire. In this approach, the role of skills development is to support individuals' achievement of those outcomes that they have reason to value most. This includes a broader conception of work to encompass solidarity and noneconomic rationales (McGrath et al., 2020a).

Ten implications for skills policy and practice

What, then, are the implications for skills policies and practices of the state of African skills currently, on the one hand; and emerging theoretical perspectives and megatrends, on the other?

Reasserting the purposes of skills development

At the Shanghai World TVET Conference in 2012, the global VET community agreed that stakeholder had to see the economic rationale for skills development as only one strand, alongside social inclusion and sustainable development. UNESCO has sought to build on this: and there has been important progress in academic and policy circles in thinking about the experiences education, skills development, and work of those who have been marginalized by implicit assumptions about race, gender, class, and able-bodied status of the ideal VET learner. There has been increasing awareness, too, by policymakers of the particular challenges that migrants, refugees, and internally displaced persons face in accessing quality vocational learning (Alla-Mensah et al., 2019). Yet, we have much still to do, particularly in adopting a necessary intersectional understanding of how many people experience unjust education systems and labour markets. However, the VET orthodoxy within agencies—and even UNESCO country advice—has remained obsessed with employability.

Thinking about skills systems

These theoretical approaches emphasize the importance of looking at the whole of skills formation systems and not at narrow elements thereof. Thus, it does not follow, as Buchanan et al. argue, that we should only be thinking of very small vocational systems in poorer countries. Rather, the key is understanding the vocational learning experiences and needs of all. By looking at the totality of skills systems we can then start to address the crucial public policy questions of who benefits from different parts of the system, who does not, and under what conditions. From there, we can then decide on the size and shape of elements of the vocational learning system.

The skills ecosystem approach is particularly useful here as it emphasizes the importance of engaging the full range of actors in thinking about skills development and its purposes. The VET toolkit has highlighted employers as the only actor group that matters apart from the state but has only engaged with them in very thin ways. Learners, communities, and civil society organizations need to be part of vocational conversations. Their attitudes toward VET are central to its possibilities for success. Religious organizations, too, are major players in provision in many countries, as well as being important civil society institutions with strong contributions to make regarding social inclusion and environmental stewardship. These issues point to the need to revisit debates about governance and responsiveness, and to think carefully about how to encourage more democratic participation in skills systems.

Addressing public provision

The critique of the current dominance of the VET toolkit, as well as the above point about the wider set of skills stakeholders, highlights the urgent need to revisit governance and the

issue of public provider autonomy. Such autonomy is more limited and problematic than its proponents have claimed (Wedekind, 2010). Indeed, many public providers are unable to respond fully to local skills needs and opportunities as they do not have a mandate (VET Africa 4.0 Collective, 2023). This situation is likely to become even more acute as vocational provision needs to answer new and pressing challenges of sustainability as well as rapidly changing economic circumstances. Where public providers are most prominent, it is due to long institutional histories of excellence or the creation of new and well-supported centres of sectoral excellence. However, recent research on South Africa and Uganda gives examples of new centres of excellence that industry partners did not ask for—they had their own skills formation strategies in place (VET Africa 4.0 Collective, 2022). Thus, these new, well-resourced centres face a significant challenge in convincing employers that they are worth engaging with.

Part of the reason why employers are so sceptical is that public colleges are seen by them as unable to respond quickly despite more than a quarter century of VET toolkit-inspired reforms. This is due precisely to the toolkit's undermining responsiveness by limiting autonomy. As Buchanan et al. note, the system makes it impossible for under-resourced institutions to respond to needs. As they put it, there is no "surge capacity" in the system, yet economies and jobs are volatile and require rapid adjustments to skills provision.

Given the lack of realistic possibilities of most public VET graduates transitioning smoothly to formal, full-time, permanent jobs, public provision has increasingly been rebranded as being about employability and, more recently, entrepreneurship (DeJaeghere, 2017; McGrath et al., 2010). However, this assumes that the issue is primarily one that can be solved from the education side. Making vocational graduates more employable or entrepreneurial means little without opportunities in the labour market and the economy.

Including skills for the informal sector

The issue of transitions leads to a consideration of the informal sector and its role in skills formation and social ecosystems. The vast majority of African youth will engage with informal work, whether in the informal sector, as conventionally understood, or through informal work for formal sector firms, as is increasingly the norm in the north, too. However, just because someone is in the informal economy does not necessarily mean that they are mired in survivalist activities with no hope of advancement. Whilst we must avoid romanticizing informal sector activities, research does point to examples of innovation and dynamism (Kraemer-Mbula & Monaco, 2020; VET Africa 4.0 Collective, 2023).

This admonition is important, as it highlights the need to argue against the policy tendency to formalize the informal. In many ways, this is the worst of empty policy rhetoric: declaring formality without the means to transform economies and labour markets so that informal work is genuinely eradicated offers false hope and, in addition, denies existing lived realities. Policy actors have often coupled this rhetoric with an attempt to cover informal sector learning in national qualifications frameworks. This, too, ignores the messy nature of reality in favour of big-gesture policymaking. Formal qualifications will not magically lead to formal jobs or to better work and lives within the informal sector (VET Africa 4.0 Collective, 2023). Rather, the relevant policy question is better formulated as: How do we support informal learning in the informal sector to strengthen its quality in terms of knowledge content, inclusivity, and livelihood outcomes?

To answer this, one would have to start by listening to those already engaged in such activities and working with them to build improved practices—including sharing existing good practices horizontally in ways that can also draw on the resources and networks of

formal learning institutions. Arguably, this is what the best interventions aiming to upgrade African traditional apprenticeship did in an earlier era.

It would also involve building from the considerable vibrancy that exists in informal-sector learning, which goes far beyond the traditional apprenticeship focus. Recent findings from Uganda are pertinent here (VET Africa 4.0 Collective, 2023). In the city of Gulu, several new training providers have emerged, typically owned by graduates and those with experience of working with international development organizations. Thus, they have access to various forms of capital. A number had initially started production-oriented enterprises but subsequently moved partly or completely to training provision. At the same time, others in the city were using social media to acquire and share knowledge both nationally and internationally and, in some cases, to market their products nationally and internationally. These examples are a useful corrective to the tendency to see the sector as for academic failures and the poor. The policy message is that the contemporary informal sector is heterogeneous, and we must build interventions based on a clear understanding of local sectoral demographics and dynamics.

Revisiting rural skills

Formal vocational learning is a child of industrialization and urbanization. As a result, it has been myopic regarding rural skills, seeing this as the business of agricultural ministries and other rural development actors, leading to a further fragmentation of response. Where formal education provision does reach rural areas, often it is to deliver the same courses as in urban areas, regardless of different labour market contexts. Yet many millions continue to live in rural areas and have particular skills needs and opportunities. Moreover, the climate crisis points to the crucial importance of rural natural resource management. Indeed, it is striking that a recent survey for UNESCO on the need for new sectoral skills in Africa saw agriculture identified as the sector most in need of new qualifications, with a greening perspective being widely highlighted (Allais et al., 2022).

Brown and Majumdar (2020) argue that the nature of agricultural production has changed, and that the next generation of Southern farmers face a unique set of challenges and opportunities. The rise of formal education has affected older patterns of intergenerational learning of agricultural knowledge. Climate change—particularly changes in growing seasons and higher variability in rainfall—means that the bases of some aspects of existing local knowledge are less reliable than in the past and that there are a new set of challenges. Rural land poverty is increasing in many places, made worse by land grabs by developed countries worried about their food security. More positively, young people have access to new knowledge sources through social media and new technological possibilities linked to, for instance, precision agriculture. All of this means that farmers have new learning needs.

Some of these needs will be met through social media, including within farming groups and networks (VET Africa 4.0 Collective, 2023); some will be met through short courses. Many new farmers will access formal learning through the agricultural education system, whilst agricultural extension officers—one of the key outputs of this system—will play an important part in providing new learning for many more farmers.

However, current agricultural education has problems. Practicing farmers do not have time even for short courses, and women farmers are likely to face additional barriers to attendance (Brown, 2020). However, short courses are typically too short for beginning farmers. Courses also tend to be too theoretical; practical knowledge is more urgently needed. This is even more the case for programmes at formal tertiary agricultural providers

(ASSaf, 2017; Jjuuko et al., 2019). They have also been slow to move from a sole focus on large-scale commercial farming.

Rural skills need to become better integrated into national skills systems but in ways that reflect the realities of rural economies and societies. Some countries will require a particular focus on the needs and concerns of minorities who are disproportionately located in rural areas.

Rethinking private provision

For many years, most states looked at private skills provision with suspicion. Yet it is a vital part of all skills systems (Akoojee, 2011). It is particularly important to note that private provision is highly varied. In many African countries, faith-based provision by international organizations such as the Combonis and Salesians has been seen by stakeholders as high status and high quality, even where they have focused most specifically on reaching the most marginalized. Sometimes governments have largely integrated this provision into the public system, with these providers following national curricula. There is a range of other non-state providers, often of nonformal short courses. In major urban centres, there is also a long-established tradition of specialist providers focusing on business and computing qualifications for the middle classes. These are often intended to facilitate migration; and the computing programmes, in particular, focus on internationally recognized industry qualifications. Recent research in areas where large economic investments are happening, such as in the oil and gas sector, point to the emergence of new actors, typically small and specialized, concentrating on very specific areas of training (such as health and safety) to service these new industries (VET Africa 4.0 Collective, 2023). This research, as noted above, has also identified the growth in new training actors in informal economies that are quite distinct from the long-established traditional apprenticeship systems of many countries. The likely trajectory here is for this provider fauna to become even more diverse. Policy needs to build from this.

Inserting a youth focus

The youth and skills-research constituencies have had little interaction, even though they are largely talking about the same population. Youth studies literature has been far readier to reject the fiction of a smooth transition from formal education to formal work for the majority of young people. Rather, it emphasizes difficulties in accessing and retaining education and learning opportunities, as well as work and livelihood prospects. This leads youth to “hustle” (Thieme, 2013), “actively seek[ing] out sporadic opportunities rather than passively becoming victims of external circumstances that force them to ‘wait’ around ... skilfully negotiating an unpredictable environment” (Cooper et al., 2021, pp. 48–49).

Rather than Northern accounts of the end of work, this notion of how African youth navigate complex economic and social realities is more pertinent to the question of how we support the futures of African skills. A key question here becomes how skills-development systems can support life and work navigation skills (Mkawananzi & Cin, 2020). Importantly, the youth focus also moves beyond seeing young people as investors in their human capital. Rather, it acknowledges that they are also dealing with a complex mix of roles, responsibilities, and identities, oftentimes simultaneously (Jjuuko, 2021). It is important for vocational learning to recognize this. Vocational policies at all levels need to place

learners at the centre in ways that reflect their experiences of past disadvantages, where relevant, and their aspirations for the future.

Reasserting the importance of knowledge

Buchanan et al. note that new technologies in the workplace, in education, and in society all have the potential to disrupt current ways of learning and, indeed, the fundamental architecture of vocational knowledge. However, they highlight some of the risks inherent in this. They insist that education has an important role to play in providing foundational knowledge for new jobs and occupations. Nonetheless, it is crucial to stress that educators and educational systems cannot be the sole arbiters of what counts as important knowledge.

Moreover, the rising use of social media in learning and knowledge sharing is an important part of a story of evolving learning and skills ecosystems. The VET Africa 4.0 Collective (2023) found numerous examples of trusted sources of new ideas and advice that go far beyond VET providers or the agricultural extension system. Planners need to review such systems for the consequences of this in terms of knowledge sharing, learning, and vocational praxis development.

New knowledge, new occupations and tasks, and new ways of sharing knowledge are all part of the current experiences of those engaged in vocational learning. Moreover, there are wider debates and slowly improving practices regarding the importance of knowledge previously marginalized. All of this has huge implications for how planners organize vocational learning.

Rethinking qualifications and curricula

National qualifications frameworks (NQFs) have proliferated across Africa as part of the VET toolkit. However, the reality is that many of these have been more gazetted than developed (Allais et al., 2022). Moreover, the evidence for their success is far thinner than the claims that their advocates make. Allais (2019) suggests that the process of bringing stakeholders together to talk about developing an NQF may be their most positive impact. However, no compelling evidence shows that they have led to more jobs or productivity. This is because that is not within their gift. Rather, they are costly exercises that give the impression of being able to revolutionize skills systems but actually reflect a policy fallacy that new qualifications frameworks can substitute for broken social and economic relations. By failing to take social relations into consideration, the introduction of NQFs may actually make the problem of misarticulation worse, particularly the further they get away from formally organized industrial sectors.

Moreover, there is often a problem of “regular” qualifications in many vocational systems. Indeed, this is actually worst in highly formalized and internationalized sectors. These typically have already-existing, well-recognized international qualifications; meaning there is little employer enthusiasm for national qualifications. Examples here include the maritime and oil and gas sectors, as well as the ICT sector mentioned above.

The rise of qualifications frameworks within the VET toolkit is closely intertwined with a move toward competencies and a skills-based, rather than knowledge-based, curricular approach. There is extensive debate regarding the suitability of the notion of “competence” and its actual meaning (e.g., Gamble, 2016; Mulder, 2017). Whatever the merits of more expansive forms of competence, these do not appear to be the dominant approach in Africa. Gamble argues that African approaches to competence are derived from a crude analysis of

“what the labour market wants”. In contrast, she maintains, a focus on the labour process (what actually is done in jobs) reveals great variation in work processes within identical job titles. Crucially, the nature of knowledge used also differs dramatically within the same named occupational role.

Further, it is difficult to see how a competence approach based on past stated industry needs is adequate for thinking about skills needs for just transitions. Rather, it is important to explore ways of identifying potential new skills, knowledge, and competence needs proactively. Rosenberg et al. (2020) provide sectoral case studies from South Africa. Their approach, like that of many other Anglophone authors (including Buchanan et al.), is to stress the importance of thinking about occupational streams and designing curricula to build the skills and knowledges for participation within the stream, rather than a single occupation. As Buchanan et al. argue, curriculum development in such cases must draw upon “communities of trust” between the wide range of relevant stakeholders. Building such communities becomes a vital task in curriculum renewal but requires a multilayered ecosystemic approach rather than the hierarchical control models of public management approaches, old or new, which still dominate vocational curriculum work in Africa (Allais et al., 2022). Indeed, an ecosystemic perspective suggests the need for more local autonomy to develop curricular responsiveness, as is more typical in higher education than in vocational (VET Africa 4.0 Collective, 2023).

However, the clearest policy message about qualifications and curricula must be that it is time to provide robust evidence that NQFs and competency-based approaches work in Africa. If this is not forthcoming, the advocacy for them from international organizations needs to stop.

Expanding current notions of vocational teaching

Vocational teachers are classically described as “dual professionals”, typically expected to have technical expertise and skill in vocational pedagogy. In Africa, as elsewhere, they work across a range of settings (Muwaniki & Wedekind, 2019). Indeed, if we have a broad conception of skills development systems, then we necessarily have an expanded notion of who vocational teachers are and what they do (VET Africa 4.0 Collective, 2023). Policies need to take account of this rather than focusing on actions based on a narrow definition of such teachers. They cannot be simply treated as a sub-branch of schoolteachers—one often with worse pay and conditions.

Internationally, some countries have moved to address concerns about the quantity and quality of public vocational teachers by considering what qualifications are required. Perversely, some have decided to enhance that quality by reducing required qualification levels. It is difficult to see this as anything other than an ideologically motivated attempt to weaken both unions and university education departments. However, the move of some African countries to require higher qualifications from vocational teachers can also be problematic, particularly where it leads to the retrenching of experienced teachers. More important, arguably, is thinking about continuous professional development. Too many interventions in this area have led to relatively short-term programmes that are often disparate and uncoordinated. Rather, what is required are horizontal relationships between vocational teachers across and within institutional boundaries—through better localized coordination around professional development activities that advance communities of practice amongst vocational teachers and others who contribute to their professional learning.

The growth in access to and content of social media, and rapid digitalization, has potentially profound implications for the flow of vocational knowledge and for the status

of vocational teachers as key knowledge actors, as Buchanan et al. outline. The relative availability of sources of informal learning online can assist teachers in making their formal lessons stronger, as they can source information and knowledge otherwise absent from resource-poor institutions. However, as social media become more ubiquitous, they reinforce existing notions of teachers as sole distributors of knowledge through speaking and writing their notes on a blackboard in the theory classroom. This appears to strengthen arguments about shifting the teacher's role to more of a guide to accessing and evaluating knowledge. Indeed, many possibilities exist for a different role for vocational teachers, but this requires a fundamental revisiting of their job descriptions and purpose; a radical reworking of their initial and continuing preparation; and an adequate resourcing of them. All of these will be challenging in under-resourced public VET systems and in societies where a digital divide is still acute. How to reach private provision of all kinds is a further issue.

The role of social media in vocational learning raises the question of education technology in vocational learning. Whilst technology can do some valuable things in VET, we should be wary about its efficacy and cost, let alone its collaboration with the state to project a sense of techno-utopianism that will solve all ills. Rather, the debate about harnessing the power of informal e-learning may be more fruitful when thinking of strengthening VET teaching and learning. We need to give much attention to technical issues—such as devices, software, data costs, and other dimensions—for e-learning assumptions to be realized in practice for staff and students alike, and to bring attention to the fundamental inequalities that still prevail regarding access to all of these and to safe and effective learning spaces outside formal classrooms (Allais & Marock, 2020; Majumdar & Araiztegui, 2020).

Conclusion

Those concerned with education face the urgent need to act upon the international policy consensus that skills are not just about the economy but that they also address environmental and social concerns and possibilities. VET, understood broadly, can play an important supportive role in facilitating better education, work, and life futures, but we need to be clear about “what education can and can't do” (Buchanan et al., 2020). It cannot solve economic—or any other—problems that lie outside its control. It cannot guarantee more and better work or more productive labour. It cannot substitute for lack of trust and relationships between social and economic actors.

The current policy orthodoxy simply does not work presently and cannot provide the basis for responses to the megatrends facing African vocational learning systems in the near future. Its theoretical grounding, too, is based in a problematic mix of neoclassical faith in human capital and neoliberal reliance on new public management that poorly reflects reality.

Alternative theoretical accounts are flourishing in Africa. These appear far better grounded in African philosophical traditions and need to be explored more seriously. However, in thinking in new ways we must be aware of how African skills systems have developed historically and what constrains future possibilities. We need to acknowledge the fragmentation and limitations of present provision, whilst also addressing the tendency to look only at a small part of the whole landscape of vocational skills development.

A skills ecosystem approach may be particularly useful for thinking about broad systems of skills development as it emphasizes the importance of engaging the full range of actors in thinking about skills development and its purposes. Learners, communities, and

civil society organizations need to be part of vocational conversations, as well as educators, employers, and the state. All of these groups should prioritize how to encourage more democratic participation in skills systems. In developing a more democratic space for skills thinking, they must listen to other arguments about the purpose of skills development, informed, for instance, by human development and sustainable development accounts. It will also be important for them to see provision in the private, rural, and informal sector segments of skills formation as key elements of any imagined system.

As I have already noted, the vast majority of African youth will engage with informal work, whether in the informal sector itself or in informal work arrangements with formal firms. The latter is a growing phenomenon in the north, too. However, I want to emphasise that informality does not equate to survivalism. Rather, the contemporary informal sector is heterogeneous, and any policy interventions need to start from a clear understanding of this and how it pertains in the specific context of any planned intervention.

Here there is much to learn from youth studies. A youth focus can remind us that young people are more than investors in their human capital but face a complex mix of roles, responsibilities, and identities, and have equally complex aspirations and plans. Vocational policies should put learners at the heart of learning, in ways that build on their past experiences and strengthen their future aspirations.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Academy of Science of South Africa (2017). *Revitalising agricultural education and training in South Africa*. Department of Science and Technology.
- Akoojee, S. (2011). *Private further education in South Africa*. VDM.
- Alla-Mensah, J., Fakoush, H., McGrath, S., & Wedekind, V. (2019). Migrants in the labour market: Implications for TVET. In S. McGrath, M. Mulder, J. Papier, & R. Stuart (Eds.), *Handbook of vocational education and training* (pp. 159–176). Springer.
- Allais, S. (2012). Will skills save us? Rethinking the relationships between vocational education, skills development policies, and social policy in South Africa. *International Journal of Educational Development*, 32(5), 632–642.
- Allais, S. (2019). TVET reform and qualifications frameworks: What is known about what they can and can't do? In S. McGrath, M. Mulder, J. Papier, & R. Stuart (Eds.), *Handbook of vocational education and training* (pp. 455–472). Springer.
- Allais, S. (2020). Skills for industrialisation in sub-Saharan African countries. *Journal of Vocational Education and Training*, 74(3), 475–493.
- Allais, S. (2022). *Enhancing skills linkage to the productive sectors in Africa*. ILO.
- Allais, S., & Marock, C. (2020). Educating for work in the time of Covid-19: Moving beyond simplistic ideas of supply and demand. *Southern African Review of Education*, 26(1), 62–79.
- Allais, S., Shalem, Y., Marock, C., Ramsarup, P., Mlauzi, K., Khunou, B., & Van Staaden, W. (2022). *New qualifications and competencies: Trends in sub-Saharan African TVET*. Report for UNESCO-UNEVOC, Centre for Research on Education and Labour, University of the Witwatersrand.
- Allais, S., & Wedekind, V. (2020). Targets, TVET and transformation. In A. Wulff (Ed.), *Grading Goal 4* (pp. 322–338). Brill.
- Avis, J. (2020). *Vocational education in the fourth industrial revolution*. Palgrave Pivot.

- Brown, T. (2020). Pathways to agricultural skill development in the Indian Himalayas. *Journal of South Asian Development*, 15(2), 270–292.
- Brown, T., & Majumdar, S. (2020). *Agricultural TVET in developing economies*. UNEVOC discussion paper. www.unevoc.unesco.org/l/687
- Buchanan, J., Allais, S., Anderson, M., Calvo, R., Peter, S., & Pietsch, T. (2020). *The futures of work: What education can and can't do*. Background paper for the UNESCO Futures of Education report. <https://unesdoc.unesco.org/ark:/48223/pf0000374435>
- Cooper, A., Swartz, S., & Ramphalile, M. (2021). Youth of the Global South and why they are worth studying. In S. Swartz, A. Cooper, C. Batan, & L. Kropff Causa (Eds.), *The Oxford handbook of Global South youth studies* (pp. 32–54). Oxford University Press.
- DeJaeghere, J. (2017). *Educating entrepreneurial citizens*. Routledge.
- Delors, J., et al. (1996). *Learning: The treasure within*. UNESCO.
- Drummond, P., Thakoor, V. & Yu, S. (2014). *Africa rising. Harnessing the demographic dividend*. Africa Department Working Paper 14/143, IMF.
- Faure, E., et al. (1972). *Learning to be: The world of education today and tomorrow*. UNESCO.
- Gamble, J. (2016). From labour market to labour process: Finding a basis for curriculum in TVET. *International Journal of Training Research*, 14(3), 215–222.
- Guterres, A. (2022). Amid backsliding on climate, the renewables effort now must be tripled. *Washington Post*, 4 April. <https://www.washingtonpost.com/opinions/2022/04/04/new-ipcc-climate-report-on-averting-catastrophe/>
- Jjuuko, R. (2021). *Youth transition, agricultural education and employment in Uganda*. Berlin: University of Groningen.
- Jjuuko, R., Tukundane, C., & Zeelen, J. (2019). Exploring agricultural vocational pedagogy in Uganda: Students' experiences. *International Journal of Training Research*, 17(3), 238–251.
- Johnstone, C., & Schowengerdt, B. (2022). More than skills: The importance of social and community connections in youth development. *Prospects*. <https://doi.org/10.1007/s11125-021-09586-2>.
- Kraemer-Mbula, E., & Monaco, L. (2020). Informality and innovation: An avenue towards bottom-up industrialisation for Africa? In J. Charmes (Ed.), *Research handbook on development and the informal economy* (pp. 363–386). Edward Elgar.
- Majumdar, S., & Araiztegui, I. (2020). *Technical vocational education and training: Reflections on the issues facing TVET and its potential in the time of COVID-19*. <https://docs.google.com/document/d/1nEXlrCOUYi1oVHVWSxWckZlj9k-UUNvwAikISYnj2IY/edit>
- Malm, A. (2016). *Fossil capital*. Verso.
- McGrath, S., Akoojee, S., Gewer, A., Mabizela, M., Mbele, N., & Roberts, J. (2006). An examination of the vocational education and training reform debate in Southern Africa. *Compare*, 36(1), 85–103.
- McGrath, S., Needham, S., Papier, J., Wedekind, V., Attwal, H., Calitz, M., & vd Merwe, P. (2010). *Employability in the college sector: A comparative study of England and South Africa*. Report for the Department for Business, Innovation and Skills. School of Education, University of Nottingham UK.
- McGrath, S., & Lugg, R. (2012). Knowing and doing vocational education and training reform. *International Journal of Educational Development*, 32(5), 696–708.
- McGrath, S., & Powell, L. (2016). Skills for sustainable development. *International Journal of Educational Development*, 50, 12–19.
- McGrath, S., Powell, L., Alla-Mensah, J., Hilal, R., & Stuart, R. (2020a). New VET theories for new times: The critical capabilities approach to vocational education and training and its potential for theorising a transformed and transformational VET. *Journal of Vocational Education and Training*. <https://doi.org/10.1080/13636820.2020.1786440>.
- McGrath, S., Ramsarup, P., Zeelen, J., Wedekind, V., Allais, S., Lotz-Sisitka, H., et al. (2020b). Vocational education and training for African development. *Journal of Vocational Education and Training*, 72(4), 465–487.
- Mkwanzani, F., & Cin, M. (2020). From streets to developing aspirations: How does collective agency for education change marginalised migrant youths' lives? *Journal of Human Development and Capabilities*, 21(4), 320–338.
- Milanovic, B. (2019). *Capitalism alone*. Berlin: Belknap.
- Mulder, M. (Ed.) (2017). *Competence-based vocational and professional education*. Springer.
- Muwaniki, C., & Wedekind, V. (2019). Professional development of vocational teachers in Zimbabwe: The past, present, and future. In S. McGrath, M. Mulder, J. Papier, & R. Stuart (Eds.), *Handbook of vocational education and training* (pp. 1649–1665). Springer.
- Palmer, R. (2020). *Lifelong learning in the informal economy*. ILO.
- Piketty, T. (2014). *Capital in the twenty-first century*. Harvard University Press.
- Powell, L., & McGrath, S. (2019). *Skills for human development*. Routledge.

- Rosenberg, E., Ramsarup, P., & Lotz-Sisitka, H. (2020). *Green skills research in South Africa*. Routledge.
- SADC & UNESCO (2013). *The status of TVET in the SADC region*. UNESCO.
- Thieme, A. (2013). The “hustle” amongst youth entrepreneurs in Mathare’s informal waste economy. *Journal of Eastern African Studies*, 7(3), 389–412.
- Tikly, L. (2013). Reconceptualizing TVET and development: A human capability and social justice approach. In UNEVOC (Eds.), *Revisiting global trends in TVET*. UNEVOC.
- UNESCO. (2021). *Reimagining our futures together: A new social contract for education*. Report of the International Commission on the Futures of Education. <https://unesdoc.unesco.org/ark:/48223/pf0000379707.locale=en>
- VET Africa 4.0 Collective (2023). *Transitioning vocational education and training*. Bristol University Press.
- Wedekind, V. (2010). Chaos or coherence? Further education and training college governance in post-Apartheid South Africa. *Research in Comparative and International Education*, 5(3), 302–315.
- Wedekind, V., Russon, J.-A., Ramsarup, P., Monk, D., Metelerkamp, L., & McGrath, S. (2021). Conceptualising regional skills ecosystems: Reflections on four African cases. *International Journal of Training and Development*, 25(4), 347–362.
- World Bank (n.d.). *World Bank open data*. <https://data.worldbank.org>
- Zuboff, S. (2019). *The age of surveillance capitalism*. Profile.

Publisher’s Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Simon McGrath joined the School of Education, University of Glasgow in 2022. Previously he held a UNESCO Chair in International Education and Development at the University of Nottingham. He has written extensively on the relationships between education and development, and has edited journals, textbooks and handbooks on both international education and vocational education. He has also worked extensively in policy advice and programme evaluation over the past 30 years, for a range of organisations including UN agencies, regional organisations and national governments.