

Marx’s Ghost in the Shell: Troubling Techno-Solutionism in Post-Secondary Education and Training Policy Imaginaries

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Abstract

Post-secondary South African education policy is pinning its hopes of increased access to education on technological changes, especially in light of increased demand for education while persisting with fiscal austerity. This article examines one policy text—the Open Learning Policy Framework—that exemplifies this techno-solutionist policy logic in the post-secondary education and training sector. Structured around the triad of “context-text-consequences”, the article conducts a critical discourse analysis of the Open Learning Policy Framework, positing that techno-solutionism performs an under-labouring role for other more commonly critiqued logics such as new managerialism, social justice as equality and/or equity, and human capital theory. It further troubles the Open Learning Policy Framework’s definition of “open learning”, examining it as a truth/power regimen that constructs the object it espouses to describe. Finally the article considers some of the consequences of such a pivot in education, including the invisible transformation of relations in pedagogic labour, and the subjectivity of students engaged in “open learning” as individualistic neoliberal “lifelong (l)earners”. The article attempts to “raise awareness” of such relations and their constraints on imagination, with the aim of provoking alternative imaginings about how technology and education might produce humanising and emancipatory education.

Keywords: higher education; open learning; critical technology studies; discourse analysis; policy

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Introduction

To be aware of the various forms constraint can take is not to diminish the possibility of man, is not to see man as passive, is not to underwrite the stability of power relationships, *it is to raise to our consciousness its own shaping; that is to experience the sociological paradox, which is the crucible in which the imagination is forged.* (Bernstein 1975, 12; emphasis added)

This article seeks to raise awareness of a popular discourse in contemporary post-secondary education policy in South Africa, and in doing so, notice the constraints it imposes upon imagining change. The discourse of interest is *techno-solutionism* (Morozov 2013) wherein the use of digital technology in education is imagined as a route to simultaneous education expansion, improved efficiency and increased “quality”. The sociotechnical imaginings (Matthews 2021) of this discourse are examined through a close analysis of the Open Learning Policy Framework (Department of Higher Education and Training [DHET] 2017). I suggest that techno-solutionist discourse in this document serves multiple purposes. Firstly, it reproduces the mystification of technology and machines’ effects on social relations, and that such effects warrant consideration and caution (cf. Marx [1867] 1976) when bringing technology to education practices; in particular, it obscures the effects of technological mediation on the work of pedagogy. Secondly, techno-solutionism performs an *underlabouring* role for other more commonly researched education policy discourses such as human capital theory, neoliberal subjectivity and new managerialist logics. Thirdly, techno-solutionism disavows digital technology’s material grounding (Bridle 2019), as well as the negative political consequences of how such technology is currently designed and deployed, along with technology’s effects on how people imagine themselves in relation to Other. That is, techno-solutionism positions “technology” as amorphous, homogeneous, and *a priori* good (cf. Greene 2021; Means 2018; Morozov 2013).

I structure the argument using Taylor’s (1997) triad for critically examining policy, namely “context—text—consequences”. I begin by lightly sketching the contemporary post-school education and training (PSET) context as background for the main analysis of the Open Learning Policy Framework (OLPF), whereafter I clarify definitions of policy and discourse as they are used in this analysis. I then identify different well-researched discourses present in the draft OLPF (DHET 2017), and how these relate to broader policy imagining in the PSET sector. Although the OLPF is officially “draft” status, I outline why its contents need to be considered seriously given the processes that gave rise to the draft, as well as actions taken subsequent to its publication. Drawing on Ashforth’s (1990) analysis of commissions of inquiry, I suggest the OLPF—while potentially still symbolic (Jansen 2002)—is nonetheless part of a legitimisation scheme on the part of the state.

Some potential (unintended) consequences of the policy’s sociotechnical imaginings are then discussed. Firstly, the effects of online and blended modes on pedagogues and

pedagogy (Black 2021a), and secondly, the discursively imagined ideal citizen-(l)earner that self-governs and self-projects and has no need of the state (Han 2017; Houlden and Veletsianos 2021; McMillan Cottom 2015; Olssen 2006; Silbert 2012).

Finally, the article closes with the argument that noticing such discursive figurations is a necessary prerequisite to imagining and building otherwise. This is particularly germane as the Covid-19 pandemic accelerated the “implementation” of technology in education for privileged minorities in ways that state apparatus never could through policy alone, while simultaneously foregrounding the relatively weak reach of the South African state to actively shape education practices in marginalised places.

Context

In order to understand adequately any set of educational reforms, they have to be placed in both a national historical and world economic context. (Chisholm 1997, 50)

The “structural embrace” (Hall 2015) of colonial and apartheid education systems continues to plague public education in South Africa at all levels, including the post-secondary education and training sector. PSET in South Africa simultaneously seeks to offer post-secondary opportunities of both traditional academic and vocational forms, as well as second-chance education access for those who did not complete—or never began—basic primary and secondary education in the appropriate age range (DHET 2013). Separated from basic education by a departmental division in 2009, the Department of Higher Education and Training¹ consists of a broad church of institutions and functions, including semi-autonomous higher education institutions (HEIs, made up of universities and universities of technology—see Hall [2015]), 50 technical and vocational education and training (TVET) colleges spread over 350 campuses (McGrath 2004; Wedekind 2016), and nascent community education and training colleges forged from the historical public adult learning centres into a “new type” of PSET institution (DHET 2013, 2015) intended to address local community education needs through and including second-chance schooling and non-formal programmes.

In 2015/2016, higher education in South Africa was rocked by wide-scale protests regarding financial access and cultural alienation in a series of uprisings frequently referred to as the “Fallist” moment. Although often attributed to events on middle-class elite campuses, the momentum and frustration regarding fees and access to post-secondary education had been fomenting on campuses that served poor students for a while (Langa et al. 2017). While the DHET responded somewhat to students’ demands, this was in an affirmative manner (cf. Fraser 1995, 2005) that did not undo the structural

¹ Now officially the “Department of Higher Education, Science and Technology” since the merging of the Department of Higher Education and the Department of Science and Technology under the cabinet of Cyril Ramaphosa in 2019. This merging in and of itself could be seen as discursively suggestive of policymakers’ ideas regarding the relation between education, knowledge production and technology. The department is still widely known as, and publishes under, the moniker “DHET” at the time of this publication.

origins of the issues at hand. Public institutions are still dependent on what fees they can gather, and paying poor students' fees now falls as a burden on the state through the National Student Funding Aid Scheme (NSFAS), an entity struggling to fill the gap produced by the promise of fee-free education for the poor. The impetus for the massification of education access in South Africa is still premised on a supply-side theory of change regarding economic growth and employment opportunity, equating education credentials with economic upward mobility and increasing the pressure on PSET institutions to offer "access" to students in order to secure (doubtful) future employment opportunities. Barriers to further education and training generated by issues in basic education are ignored, despite the vast majority of poor South Africans being excluded on academic rather than financial grounds due to the weak provision in public primary and secondary schools.

These converging conditions have produced pressure on the DHET to expand "quality" access and throughput across the PSET sector in the face of enormous inequalities of contemporary and historical origin, grossly differentiated development of infrastructure, and massive disparities in development opportunities for PSET staff. Cash-strapped and cornered, the DHET is seeking routes to overcoming these issues without massive expenditure on new and existing campus facilities and training of new and existing staff. It is into this context of trying to "do more with less" that the Open Learning Policy Framework was gazetted in draft form for public comment in April 2017. As discussed later, the OLPF's ideas have roots dating back prior to the Post-Secondary Education and Training White Paper (DHET 2013), which is now the guiding document for the department, and is currently the subject of "commissioned inquiry" by researchers to showcase best open learning practices across the PSET sector. How the OLPF imagines responses and solutions to these "wicked" problems in the sector is of interest to this analysis, as well as what solutions are discursively silenced.

Discourse and Policy

[O]ur experience of the world is in part constituted by the categories we use. Words are not a kind of decorative wrapping paper in which meaning is delivered, with the implication that they could be stripped away, or others used in their stead, without making any difference to the "real" content. *Concepts colonize our minds and we become used to thinking about ourselves and our world in their terms*; our actions are only identifiable as this action rather than that action in terms of the language in which we describe them. (Collini 2017, 3; emphasis added)

Noticing struggles on the terrain of meaning has become an established approach for researching, critiquing and counteracting hegemonic power in social relations. Drawing on post-structuralist theorists such as Michel Foucault, Stuart Hall and Judith Butler, it is exactly concern with how "concepts colonize our minds" (Collini 2017, 3) that shapes critical discourse analysts' efforts to disrupt taken-for-granted meaning, foregrounding the entanglement of words, categories, knowledge and power as they present in state texts and policies.

A critical approach to policy sees such texts not as technical artefacts but as discourses, producing meanings and knowledge/power constellations in and of themselves beyond simple considerations of “implementation” (Anderson and Holloway 2020; Ball 1990, 1993; Taylor 1997). Such critical interpretations often leverage the work of Foucault in a post-structuralist tradition, wherein power is capillary and dialectic, productive as well as repressive:

[P]ower would be a fragile thing if its only function were to repress, if it worked only through the mode of censorship, exclusion, blockage and repression ... exercising itself only in a negative way. If, on the contrary, power is strong this is because, as we are beginning to realise, it produces effects at the level of desire—and also at the level of knowledge. (Foucault 1980, 58)

Indeed, discursive formations are ubiquitous and—as the epigraph to this article suggests—most powerful in constraining both imagination and action when *unexamined*. Such a grounding entails engaging on the terrain of ideas as a valid site of power contestation; that how knowledge is framed, negotiated, appropriated and valorised is an exercise of power, and that policies and their power/knowledge formulations are key sites of the exercise of such power both on the part of the state and of resistance by the governed.

Under the aegis of neoliberalism, the exercise of power on the part of the state is a vehicle for the exercise of power on the part of capital (Brown 2017; Harvey 2005). Analyses of education policy that critique blurred lines between policy and private interests—particularly the interests of the powerful—are multiple (cf. Ball 2012; in South Africa, see Fataar 2003; Silbert 2009, 2012). But only recently in the South African case have researchers begun to prioritise analysing discourses of *technology* in education *policy* texts (e.g., Carrim 2022; Fataar 2020). This has been precipitated by the forced pivot to online learning during the Covid-19 pandemic, but as I shall discuss later, the origin of techno-solutionism in South African education policy imaginaries dates back to the original Education White Paper published in 1995 (DoE 1995). Moreover, the relation of techno-solutionism to other more well-researched discourses prevalent in South African education policy texts is underexamined. I argue that hegemonic conceptions of social change and power are necessarily bound to techno-solutionism, and these relations manifest in the OLPF’s assumptions and covert norms.

Techno-Solutionism as an Under-Labouring Discourse

Techno-solutionism is an approach to imagining technology and change outlined by Evgeny Morozov in his 2013 book titled *To Save Everything, Click Here*. Morozov outlines the underlying dispositions, attitudes, ideologies and assumptions inherent in “Silicon Valley” thinking, wherein all social and historical complexity can be reduced to a “clever” solution that involves digital information technology of some form. The emphasis on prescribing the solution while exhibiting reductionist thinking about the problem is what he terms “solutionism”:

I call the ideology that legitimizes and sanctions such aspirations “solutionism.” I borrow this unabashedly pejorative term from the world of architecture and urban planning, where it has come to refer to an unhealthy preoccupation with sexy, monumental and narrow-minded solutions—the kind of stuff that wows audiences at TED conferences—to problems that are extremely complex, fluid and contentious. These are the kinds of problems that, on careful examination, do not have to be defined in the singular and all-encompassing ways that “solutionists” have defined them; what’s contentious, then, *is not their proposed solution but their very definition of the problem itself*. ... [S]olutionism presumes rather than investigates the problems that it is trying to solve. (Morozov 2013, 5–6; emphasis added)

Although not framed strictly in discursive terms, what Morozov describes with the term “techno-solutionism” is a discourse: a truth-power regimen that “constructs” the objects of which it speaks (Foucault 1972). While at times an overt ideology (cf. “move fast and break things”), techno-solutionism and its disciples are as likely to not realise that their own ability to imagine change is limited by the discourse that *speaks them* (Foucault 1972) and constrains the very objects that are thinkable and knowable. Like other discourses, techno-solutionism fashions concepts such as “disruptors”, “techpreneurs”, “futurists” and other such phenomena, positions dissenting voices as irrational, mad or overtly ideological (and hence dismissible), and renders imagining alternatives extremely difficult and seemingly backwards. Discourses do not identify objects but constitute them, and in so doing obscure their origins and effects (Foucault 1972).

So why focus on techno-solutionism in South African education policy? Of all the priorities, why this object of analysis? While South Africa certainly has more pressing matters to hand, it is often in the name of “crisis” that powerful and under-examined shifts occur, the consequences of which are not immediately noticed. I argue South African education is undergoing such a shift, one with enormous future consequences if left to run its course. Furthermore, I suggest that a close scrutiny of more commonly acknowledged policy discourses suggests that they are underpinned by techno-solutionist assumptions, albeit often covertly. Techno-solutionism plays a supportive role to the following discursive regimes as they are instantiated in contemporary education policy: new managerialism, lifelong learning, human capital theory, liberal social justice and neoliberal ideals of the citizen-subject as a perpetually upgrading “roaming autodidact” self-managed project (Biesta 2006, 2010, 2013; Han 2017; McMillan Cottom 2015).

As the rest of this article explores, the vision for PSET education that is gaining traction among policymakers has significant and potentially calamitous repercussions, founded on techno-solutionism. Morozov writes:

For only by unlearning solutionism—that is, by transcending the limits it imposes on our imaginations and by rebelling against its value system—will we understand why attaining technological perfection, without attending to the intricacies of the human

condition and accounting for the complex world of practices and traditions, might not be worth the price. (Morozov 2013, xv)

The Covid moment has accelerated shifts to online learning, entrenching techno-solutionism as dominant in a particular struggle regarding education provision and re-imagining. It is against this backdrop, past and present, that the imagined education practices evident in the Open Learning Policy Framework (DHET 2017) warrant careful scrutiny.

A Note on Method

Anderson and Holloway (2020) correctly note that critical discourse analyses often suffer methodological opacity and conceptual slippage. The process undertaken for this analysis involved a close reading of the OLPF, looking for different discursive formulations and slippages. For each tract of text, the following questions were asked:

- How is technology being imagined in the practices described? What kinds of technology are being assumed?
- How does techno-solutionism present discursively, and what is its relation to other discourses? In particular, how does techno-solutionism relate to the discourses of new managerialism, human capital theory, social justice foci on equality/equity, lifelong learning and neoliberal subjectivity?
- For each claim of a particular logic or discourse—is it justifiable? What evidence is present in the text? How does this relate to prior policy documents that presage the OLPF?

I also had cause to become intimately familiar with this policy text over a period of two and a half years as it formed the basis of a DHET-commissioned project on which I was working, the Cases on Open Learning project (COOL Project, 2019–2021) (Mayisela, Govender, and Hodgkinson-Williams 2022). It was the COOL Project that raised the question of the draft status of the OLPF and the role of commissioned “independent” inquiry as a strategy for legitimating its ideals (cf. Ashforth 1990).

Policy, for this analysis, is taken as both a text and a discourse (Ball 1993, 2015), a bricolage of meanings participating in international flows of knowledge/power (Ball 2012; Rizvi and Lingard 2010) regarding the nature of problems and how a modern technicist state builds knowledge/power formations to establish legitimacy as the purveyor of solutions to the problems it defines.

Text: The Open Learning Policy Framework

A close reading of the OLPF suggests multiple discourses and strategies at work (bearing in mind these are not calculated or even necessarily conscientious). Description of every aspect of the text is not possible within this short article; what is offered, rather, are three aspects of the total analysis that warrant discussion. The first is how the

concept “open learning” is discursively constructed. The second is the relation between techno-solutionism and other more well-critiqued discourses in South African education. And finally, the third is the status of the text as an alleged “draft”, and the concomitant performance of consultation regarding policy decisions that have already been made.

Regimes of Truth—What Is “Open Learning”?

Deliberations and contestations about exactly what is meant by “open” education or learning are commonplace (cf. Almeida 2017; Farrow 2016; Hug 2017; Oliver 2015; Watters 2014), including critiques of whether “open” is intrinsically good (e.g., Croft and Brown 2020; Watters 2014). What is of interest to this analysis is how these slippages and contestations are leveraged within the OLPF as a text and discourse. The policy states on multiple occasions that “open learning” is an “approach” *not* to be conflated with distance or online learning (DHET 2017)—that these *might* be part of an open learning “approach”, but that the aim is “increasing access and improving quality cost-effectively through open learning” (DHET 2017, 1).

This (repeated) insistence suggests that a central claim in the OLPF—namely that it does *not* suggest all PSET institutions transition to online and/or distance education—needs some scrutiny. The DHET’s definition of an “open learning approach” originates in the 1995 *White Paper on Education and Training* and is repeated in the PSET White Paper and the OLPF:

Open learning is an approach which combines principles of learner centredness, lifelong learning, flexibility of learning provision, the removal of barriers to access learning, the recognition for credit of prior learning experience, the provision of learner support, the construction of learning programmes in the expectation that the learner can succeed, and the maintenance of rigorous quality assurance over the design of learning materials and support systems. (DHET 2017, 5; quoted from DHET [2013, 48] and DoE [1995, clause 25])

However, this definition suggests how, for the DHET, “open learning” relates to a) modes of provision and b) de-coupling students from time/space constraints and physical contact with their lecturers/teachers, both of which are definitive characteristics of distance and asynchronous online learning modalities:

South Africa is able to gain from world-wide experience over several decades in the development of *innovative methods of education, including the use of guided self-study, and the appropriate use of a variety of media, which give practical expression to open learning principles*. (DoE 1995, clause 25; emphasis added)

“Open learning principles” in the OLPF, then, appear to be an amalgam of online and distance modalities combined with relatively ill-defined conceptions of “good pedagogy”. “Learner centredness”, “provision of learner support”, believing that “learners can succeed”, and providing “good quality learning materials” are hardly

innovations definitive of a unique approach to teaching and learning. In addition, that student-centred, supported, synchronous contact classes could be “open” is the anti-thesis of the oft-repeated commitment to “cost efficiency” in the OLPF, which frequently touts “traditional” modes as too expensive to scale.

By bundling hard-to-denounce pedagogical principles with more explicit modalities such as online learning, blended learning, “e-learning”, and also digitally enabled open education resources (OER), micro-credentialism, flexibilisation and online assessment—all while adamantly insisting that “open learning” is mode-independent and cannot be reduced to the latter group—the OLPF constructs the object it purports to describe, and thus produces a power/truth regime (Foucault 1972). That is, to be anti-“open learning” as the DHET defines it would be to denounce student support or “learner centredness” along with these other modalities, thus constructing a narrative that is, to paraphrase Greene (2021), politically expedient, empirically tricky, and unfalsifiable.

Further floating signifiers are attached to “open learning” as an approach that promotes “access”, “quality” and “success”, although robust and unambiguous definitions for each term are absent in the text. In fact, “quality” is reasoned as an extension of “access” (see OLPF [DHET 2017, 7–8]), and “success” is reasoned to be an inevitable determined outcome of “access” and “quality”, hinging all three on the vague concept of “access”. Such ambiguities and conflation are common in policy texts, functioning to suture incommensurable political and social imaginaries by leaving meaning open for the reader to fill in as they wish. What is noticeable in the OLPF is that, when vague terms such as “learner-centredness” are stripped from the definition of open learning, what remains is a sociotechnical imagination that posits doing more with less through technologically enabled learning modalities. This imagination simultaneously ignores or disavows the social complexity and heterogeneity of the problems such modalities will “resolve” (Morozov 2013). Such framing is typical of techno-solutionism.

Warning: Discourses at Work

Multiple, at times contradictory, logics are often co-present in policies (Ball 1993; Taylor 1997). Some of the more common discourses that have been identified and extensively analysed in education policy texts both in South Africa and beyond include:

- New managerialism (cf. Ball 2012; Collini 2017; Olssen and Peters 2005) wherein private corporate logics and approaches are assumed to be a route to improvement in state provision of public services, that is, run the state like a business and focus on “efficiency” and measurement of everything towards the ends of accountability (Biesta 2004, 2007, 2017).
- Lifelong learning (cf. Biesta 2006, 2010, 2013; Black 2021b; Elfert 2018; Lee and Friedrich 2011), a framing of the independent autodidact who forever upgrades their own skill-base for the labour market—what Han (2017) refers to as the metamorphosis from the subjugated “subject” under allo-exploitation to the self-

governing “project” under perpetual auto-exploitation. The discourse of lifelong learning shifts responsibility for “skills mismatch” onto the (l)earner and absolves private industry or the state from the issue.

- Human capital theory (HCT) in education policy (cf. Allais 2022; Vally and Motala 2014), which posits supply-side interventions in the labour market as the origins of inequality, poverty and unemployment and hence locates the lever of economic change in improving access to education opportunities. HCT from an educational perspective is related to lifelong learning insofar as the locus of the problem resides with the student (“learner”). However, in the logic of “increased human capital creates economic growth”, barriers to change are framed as antiquated curricula of education institutions and HCT seeks to bend these institutions towards wholly instrumentalist economic imperatives.
- Human rights/liberal social justice (cf. Tikly and Barrett 2011) is also a common policy schema. This discourse is characterised by affirmative (cf. Fraser 2005, 2009) concerns with issues of equality and equity, but disavows engagement with political economy or other structural underpinnings of inequality. Human rights/social democratic framings of social justice also assume the liberal-capitalist nation-state as the final—and best—arbiter of justice, even as Westphalian nation-states’ reach to enact justice wanes (Fraser 2009).

Neoliberal relations between citizen and state run as an undercurrent to all these; such relations are of a consumer-provider type, premised on detached individualism independent from community, systems of welfare and/or support, depoliticised civic engagement reduced to voting and paying (minimal) taxes, and knowledge as a commodity to be accumulated as a private good for personal return (cf. Marginson 2011; Szkudlarek and Zamojski 2020).

I argue, however, that another logic under-labours for these discourses in the OLPF: techno-solutionism. While every instance of these discursive relations in this text cannot be reproduced here, a representative selection is offered.

To begin with: new managerialism manifests in typical signs in the OLPF such as an emphasis on monitoring and evaluation, as well as an over-riding theme of “cost efficiency” throughout the document (40+ mentions of “cost efficiency”, “cost effectiveness”, “lower costs”, “reducing costs”, over a 55-page document). Throughout, information and communications technology is portrayed as being a long-term cost-saver, albeit with significant upfront outlays (DHET 2017, 43). Marx ([1867] 1976) outlined in detail how productive forces bent on growth of output, while simultaneously reducing costs, develop and deploy technology to achieve this. (The effects of these “cost-saving” digital modalities on pedagogic labour is discussed later under “Consequences”). The OLPF exhibits this managerial logic in abundance: to make more with less, bring in the machines. Thus prioritising “efficiency” and “return on investment”, in new managerialist terms, is only imaginable if it assumes techno-solutionist thinking.

Another concept present in the OLPF (and portrayed as a positive development) connects both new managerialism and lifelong learning to techno-solutionism: *flexibilisation* of learning (14 instances in the OLPF). De-coupling students' education opportunities and encounters from the constraints of time and space, as well as the burden of synchronising with a pedagogue, is seen as promoting "access" and enabling greater degrees of freedom for those seeking knowledge acquisition. Greater organisational flexibility sits comfortably with managerialism: self-organising units of work responding to "need" is the *raison d'être* of market fundamentalism, and has underpinned the rise of platform capitalism (Srnicsek 2017). But how might such asynchronous, "independent" self-study be enabled? By separating pedagogue from student, and mediating all learning through time-persistent, decontextualised, dislocated artefacts. The delivery of such artefacts may involve older forms of technology (such as print and broadcast services), but throughout the OLPF such artefacts are primarily imagined to be "open education resources" (i.e., not constrained by intellectual property law) delivered by digital technology (e.g., the National Open Learning System, or NOLS). In this way, the "openness" of the OLPF is imagined fundamentally as online and distance learning, which manufactures (false) efficiencies in the system by transferring responsibility for education from the structure to the student.

Education-for-human-capital also underpins much of the OLPF. The opening paragraph of the policy indicates this strong premise, opening with a comment about employment:

Employment is essential for creating social stability in South Africa. People who do not have a reasonable hope of finding decent work—or creating their own sustainable livelihoods—have little to lose and have little stake in maintaining a stable society. One of the obligations of the DHET is to increase access to educational opportunities for those who experience barriers to learning and for young people who are not in education, training or employment (NEET). (DHET 2017, 1)

Throughout the OLPF, "access" and "success" are seen as the route to increased employability via credentialled formal education tradeable on the labour market. Critiques of such reasoning have been made on multiple occasions by others (cf. Allais 2022; Tikly and Barrett 2011; Vally and Motala 2014) and need not be repeated here. What does warrant scrutiny is how "access" is *framed in terms of technology*, to be achieved by flexibilisation through "diverse modes of provision". Greene (2021) refers to this logic as "the promise of access" or the "access doctrine", wherein proliferation of "opportunities" is assumed to set off a chain reaction of learning, employment, upward social mobility and prosperity. Reversing this series of purported causal relations is exactly "how the problem of poverty is transformed into a problem of technology" (Greene 2021, 5). That is, absence of human capital is explained by "inadequate access" to learning opportunity, thereby positing the barrier as the "digital divide" and lack of technology, not the structural features of the economy itself.

Discourses of lifelong learning also tacitly presume consistent access to learning materials *ad infinitum* (what the OLPF refers to as "sustained access" [DHET 2017,

44]). But what will enable this “sustained access” is clearly an apparatus of a technological nature in the sociotechnical imaginings described. A continuous feed of novel knowledge for discovery and accumulation must necessarily rely on proliferation of technological speed, volume and complexity.

Finally, “equity” and “equality” get few mentions in the OLPF, and are often conflated with each other (as is commonly the case in South African education policy, despite each operating on fundamentally different premises). In all the occurrences in the document, references to these two ideals appear as an afterthought, with “access” (via technology) framed as sufficient to achieve both.

Performative Schemes of Legitimation—When Is a Draft Not a Draft?

The analysis offered here might seem futile were the official status of “draft” for the OLPF actually the case. However, such a framing does not withstand scrutiny, and is refuted both by the text itself and its context. The OLPF states clearly in its introduction that the ideas for open learning for the whole PSET system pre-date the PSET White Paper (DHET 2013) (and this is evidenced by the presence of references to its fundamental tenets in the 1995 White Paper). The “Concept Note: Open Learning in Post-School Education and Training” (DHET 2017, 3) dates back to 2012 and allegedly informed the 2013 White Paper (see Section 7: “Opening Learning through Diverse Modes of Provision”), forming the groundwork for the OLPF.

The OLPF draft itself was gazetted for comment in 2017, and has subsequently been the focus of a two-year research programme by independently commissioned researchers at a local higher education institution to investigate “existing best practice” of open learning in PSET institutions across the country. This project was to “showcase” best practice, producing both research case studies premised on the OLPF as well as grey literature for dissemination to HEIs and TVET colleges. What was significant about this project (of which the author was a participant researcher) was the terms of the commissioned research—“open learning” was framed by the DHET as an axiomatic given, and *a priori* good, and the purpose of the research was to find examples of this as evidence. That is, the results of the research were subtly predetermined by the conditions of the specification prior to data production. This predetermination, I argue, indicates the DHET’s desire to leverage the truth claims of independent research to legitimate the policy discourse of the OLPF and decisions that stem from it.

In his 1990 study on the politics of commissions of inquiry, Ashforth explores the political and discursive work such commissions perform on the part of state. He reasons that such commissions serve as “schemes of legitimation” whereby a state is publicly seen to take concerns that affect the public seriously, to appoint experts and accord them independence to thoroughly investigate the matter, and in so doing shore up hegemony—particularly through influencing “civil society” and the media—by demonstrating due diligence. To focus on the outcome of the commission’s investigation, or the lack of action premised on its findings, is to miss the primary

purpose of the practice. Rather, by bootstrapping to powerful forms of knowledge and expertise (the “truth”), the state re-establishes political ground through the *process* of the commission, not its outcome. Ashforth states that the discursive work of commissions is for “showing how what is desirable can be made practicable” (1990, 6) and to “draw upon the authority of science to present the state of Truth and the majesty of judgement to represent the truth of the State” (7), particularly in times of authoritative legitimacy crises. Such a framing is not necessarily indicative of malice or bad policy; what Ashforth offers is a *description* of how modern nation-states tend to the issue of hegemony and production of legitimacy in the eyes of the governed, and leverage institutions of “truth” such as academia and the judiciary to do so.

That the DHET commissioned our research in ways that align with the ideals of the Open Learning Policy Framework might be read in similar terms. The contents of the policy notwithstanding, such significant investment² into “commissioning inquiry” (to play on Ashforth’s “Commissions of Inquiry”) suggests that the OLPF is more entrenched than a mere “draft” that is open for scrutiny or significant refiguration post a public consultative process.³ The National Open Learning System (NOLS) described in the OLPF was already advanced in its development, even before the findings of the commissioned research were made public. The ideas enshrined in the OLPF, then, could be read as representative of policymakers’ entrenched sociotechnical imaginings for the sector.

Consequences: Effects of Technology on Social Relations in Education

While the sociotechnical imaginaries evident in the bricolage of the OLPF exhibit strong techno-solutionist tendencies, the potential material and/or political implications of such online, blended, micro-credentialled, flexibilised learning are not considered in the text. Two potential sets of consequences bear noticing *on the OLPF’s own terms*; that is, were this policy practicable (which it is not), such consequences would still be of concern. Rather than critique the policy for being “unimplementable”, which critiques the OLPF’s relation with conditions and complexities on the ground (a weak plan), the following issues focus on the world that the OLPF imagines as ideal in the first place (a weak aim). The first is how the ideals evidenced in the framework change the nature of

² The Cases on Open Learning (COOL) Project included 10 contract researchers, a support team of academics, a project manager, a writing supporter and 16 extensive case studies over 30 months. For the output of this research, see Mayisela, Govender and Hodgkinson-Williams (2022). It should be noted that the team of researchers strived as far as possible to conduct independent enquiry without accepting foregone premises on the findings of these case studies.

³ This is not uncommon in South African policy making in general: policies are put out in “draft” form for “public input” within a short period of time. Unbeknownst to many who might partake in such a consultative process, the systems and groundwork for implementing the policy have been under construction for years prior. See, for example, the “draft” policy on the General Education and Training Certificate put out for public comment in June 2021 (Parliamentary Monitoring Group 2021).

pedagogical work. The second is how they imagine the students who will engage in such practices.

The Changing Work of Pedagogy—Marx’s Ghost in the Shell

John Stuart Mill says in his *Principles of Political Economy*: “It is questionable if all the mechanical inventions yet made have lightened the day’s toil of any human being.” That is, however, by no means the aim of the application of machinery under capitalism. ... The machine is a means for producing surplus-value. (Marx [1867] 1976, 492)

Marx outlined in detail in *Capital, Volume 1* how the introduction of machines to a labour process both lengthen the working day as well as intensify the rate of production per unit of time (Marx [1867] 1976, 492–639). Anecdotal evidence suggests this has indeed been lecturers’ and teachers’ experience of moving to online learning during the Covid-19 pandemic. What Marx offers is a cautionary note for how the much-lauded “cost effectiveness” will be realised in the OLPF and who will bear the burden. He reasons that the introduction of machines to production processes did not manufacture value out of thin air, but rather—by reducing the time per unit of output—technology enabled wages to remain the same while increasing realisation, thereby inflating “surplus-value” ratios.

The origins of said “surplus-value” (which is called “profit” in the private sector, but “savings” in the public) is not the machine—it is the labourer. Fewer people working more intensely with greater output compresses the relative capital—i.e., wages—necessary per unit (although fixed capital—i.e., material costs—concomitantly increases as machines are purchased for the job; the outlays of this are mentioned as “initial costs” in the OLPF). The work of lecturers and pedagogues gets scant attention in the OLPF: the envisioned increase in enrolment is somehow “teacher-less”. This sense is further evidenced by the frequency and normative approval of “independent” or “self-driven” learning throughout the document—the pedagogue is absent and/or (ironically) difficult to access. For example, the National Open Learning System’s courses and materials will “build in a range of learner support mechanisms, and where appropriate include opportunities to interact with fellow learners and, *where possible, with staff*” (DHET 2017, 21; emphasis added).

Where lecturers *are* mentioned in the policy, the focus is on aligning their practice and use of information and communications technology to the sociotechnical imagining offered. While a full analysis of the precise structures and experiences of staff when moving to “diverse modes of provision” are beyond the scope of this particular article, there is sufficient cause for concern premised on Marx’s observations when imagining formalised, online, credentialled education at scale (see Black 2021a). That the OLPF is primarily about expansion under austerity conditions aligns with these concerns.

Lifelong (L)Earner: The Imagined Ideal *Project* of Open Learning

Analyses of neoliberal education policy, and its relation to open education and/or digitally mediated learning, have often raised the concern regarding “who” the imagined ideal *subject* of such pedagogy might be, how their lives are organised, and the assumptions about their everyday lived experiences (see Jacklin 2018; Selwyn, Pangrazio, and Cumbo 2022; Silbert 2009, 2012; Oliver 2015). But perhaps Byung-Chul Han’s (2017) *Psychopolitics: Neoliberalism and New Technologies of Power* best articulates a fundamental shift that has occurred in the processes of subjectification and governmentality, which Foucault describes (1977, 1980) as they manifest in this twenty-first century moment of ubiquitous datafication.

Han describes how, through digital media and (self-)datafication, the “subjugated subject” becomes a *project*, a self-driven perpetual motion machine of improvement towards an unattainable, but ever desired, ideal. This is the lifelong (l)earner—the autodidact who the OLPF imagines logging onto the NOLS whenever they perceive themselves in need of “personal growth”, “up-skilling” or “development”. I (re)frame the term “learner” as “(l)earner” to foreground the prevalent human capital framing in the text, wherein today’s learner is tomorrow’s earner through said self-study efforts. Not only is the lifelong (l)earner without need of a school or university building or teacher, they are also the maker of their own economic opportunities and future earning potential, having no need of an employer. The framing exonerates both private capital and the state of any responsibility, and elides the work of structures and/or discourses as constraints on individual entrepreneurial agency. Han’s term “project” takes on a double meaning: “project” as noun reflects the telos of constant self-improvement, almost framing self-upgrading as a hobby; but “project” as verb situates the focus of the ideal self as permanently future-situated, to cast oneself into the as-yet-unknown with the firm belief of individualised agency as the means to get there. Both these understandings of the citizen as “neoliberal project” are present throughout the OLPF.

Education is a key site of reproducing these subjectivities. Greene (2021) describes how when education institutions subscribe to techno-solutionism, they

reproduce the access doctrine, and thus the idea of different sides of a digital divide—with one in need of the other’s help—as part of their general task of reproducing people for capitalism. It is insidious work because *the ideal subject those institutions are redesigned to reproduce is an entrepreneur who has no need for schools and libraries; they can learn by themselves, work by themselves, start a tech company by themselves and weather extreme economic uncertainty by themselves.* (2021, 177; emphasis added)

The ideal imagined subject/project as exhibited by the OLPF is such a person—able to log on, anytime, anywhere, for a nugget of knowledge, digitally connected, self-driven and striving, with the pedagogue nowhere in sight. The human and humanising practice of education as relating, of establishing proximity and holding emergence (Black 2021a) is not present in the OLPF’s sociotechnical imaginings. The alleged “increased access”

heralded in the policy eclipses the loss of other freedoms, both for the student (cf. Houlden and Veletsianos 2021) and the lecturer. As Ball argues:

The contemporary education subject, from pre-school to higher education, is then governed by others and at the same time governor or [sic] of him/herself. ... Foucault (2010, p. 64) (also) makes the point that **the production of freedom is destructive** and “entails the establishment of limitations, controls, forms of coercion, and obligations relying on threats”—which seems powerfully apt in the case of contemporary higher education (see Ball, 2012). The destructive work of making us freer is very clear as the state establishes conditions of possibility for a market in all sorts of “serious statements”. The exercise of these new freedoms contributes to the transformation of the landscape and the lifeworld of higher education. ...

It is within this paradox that the **idea of resistance, or perhaps more appropriately, refusal, becomes a central aspect in the analysis of power relations and the struggle to produce identity and meaning within the structural and discursive limitations of everyday practice.** (Ball 2015, 5; italics in original, bold emphasis added)

As Ball notes, subjectification is never complete, nor totalising, and refusal-as-resistance is one of several avenues for challenging hegemonic ideals. However, as described at the beginning of this article, noticing how systems constrain the imagination is a prerequisite for identifying alternative vectors along which to exercise limited but ever-present agency, to “be aware of the various forms constraint can take” and not “to diminish the possibilit(ies)” but “to raise to our consciousness its own shaping” (Bernstein 1975, 12). Noticing both the absence of considerations of pedagogical work and the prevailing imagined ideal subject/project of the Open Learning Policy Framework is, I would argue, part of this awareness effort.

Conclusion

While some of the insights offered in this article are far from novel, they stand with the minority of voices raising a cautious note to the dominant tide of techno-solutionist thinking present both in policymaking circles, as well as in broader social debate. Dissenting adherents of what Morozov terms “digital heresy” (2013, x) need their critical observations

to be repeated—repeated in different settings, repeated in different forms, but repeated sufficiently often that they cease to seem eccentric or purely personal, and that they instead come to take on at least some of the air of familiarity that has been acquired by the officially endorsed commonplaces they seek to challenge. (Collini 2017, 8–9)

Arguably, dissent and caution need amplifying in the post-Covid-19 moment, as lockdowns and closures of campuses across the world have forced learning online at a scale and pace that tech advocates could only dream of. Private EdTech companies have experienced a boom in traffic and reach, and “certain actors in the EdTech industry are treating the crisis as a business opportunity, with potentially long-term consequences

for how public education is perceived and practised long after the coronavirus has been brought under control” (Williamson, Eynon, and Potter 2020, 108). Response to such contours and forces requires challenging the sociotechnical imaginings of those appointed custodians of public education institutions.

This article has attempted to describe and critique discourses shaping the role of technology in education in the PSET sector, using the structure “context → text → consequences”. By closely analysing the Open Learning Policy Framework, concepts such as “open learning” have been troubled for their espoused principles and problematised in relation to simultaneous contradictory pressures for education expansion and inclusion coupled with public fiscal austerity. In particular, I suggested that sociotechnical imaginings present in the text position techno-solutionism as an under-labouring ideal, which enables and legitimises other discourses such as human capital framings, lifelong learning and new managerialist approaches to state activities. The text was also argued to be more than mere “draft” in stature, presenting a snapshot of a scheme of legitimation in which the ideals and goals of the policy could be shored up and sanctioned by “due diligence” on the part of policymakers through commissioned inquiry.

Finally, two potential “consequences” of the sociotechnical imaginings present in the OLPF were sketched, namely the intensification, over-determination and marginalisation of pedagogic labour, as well as the entrenching of an individualised education subject/project engaged in flexibilised online education as a “lifelong (l)earner”. Such analysis is presented to raise awareness of discourses that shape imagination, to counter hegemonic ideals, and—in so doing—help identify pitfalls as we strive to imagine genuinely emancipatory education systems and practices.

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