

Neoliberal Education and the neoliberal digital classroom

Stephen J. Ball** and Emiliano Grimaldi

* *Department of Social Sciences, University Federico II, Naples, Italy*

** *Institute of Education, University of London, London, UK*

emiliano.grimaldi@unina.it; s.ball@ioe.ac.uk

Emiliano Grimaldi is Associate Professor of Sociology of Education at the Department of Social Sciences of the University of Naples Federico II. His research is in education policy sociology and has centred on educational governance and evaluation, NPM reforms in education, inclusive education and social justice.

ORCID: Emiliano Grimaldi <http://orcid.org/0000-0003-1085-1127>

Stephen J. Ball is Emeritus Professor of Sociology of Education at the University College London, Institute of Education, a Fellow of the British Academy and the Society of Educational Studies, a Laureate of Kappa Delta Phi, and Consulting Editor of the Journal of Education Policy.

ORCID: Stephen J. Ball <http://orcid.org/0000-0001-7446-4201>

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Corresponding author: Stephen J Ball Stephen.ball@ucl.ac.uk

Abstract

This article explores some aspects of the relation between neoliberalisation, and the increasing use of digital technologies in school classrooms. It does this in relation to a specific case – a specific school, classroom and a fictionalised child – Sarah, who stands as an historical singularity and an exemplary space of relations. Sarah’s classroom and her learning experience are analysed as an example ‘actually existing neoliberalism’ through the exploration of some of the chains and relays that join up ‘learning’ in her classroom to strategies of education reform, to edu-business profitmaking and to private equity investing. Together these chains and relays constitute what we term as a neoliberal dispositif of learnification. The paper offers some starting points for the analysis of this dispositif.

Keywords: Educational Online Platforms; digital learner; digital gaze; neoliberalism; archaeology

Introduction

We use this article to think about the relation between neoliberalism in education, or perhaps more accurately some aspects of *neoliberalisation*, and the role that digital technologies and digitalization play in the re-making of classrooms and the learning experience (Williamson, 2021; Ideland, 2021). We do this in relation to a specific case – a specific school, classroom and a fictionalised child – Sarah, who stands as an historical singularity and an exemplary space of relations. We analyse Sarah’s classroom and her

learning experience as an example of ‘actually existing neoliberalism’ (Brenner & Theodore, 2002), through the exploration of some of the chains and relays that join up ‘learning’ in that specific classroom to grand strategies of education reform and edu-business profitmaking and constitute what we define as a *neoliberal dispositif of learnification* (Biesta, 2005). Sarah’s classroom, her school and *blended learning* (hereafter BL) as examples of neoliberalisation in education, offer interesting and worthwhile starting points for analysis. However, they are not in themselves typical or representative but they are rather topical and illustrative.

The paper is the third in a series (Grimaldi and Ball 2021a, 2021b) that explores some paradoxical and distinct aspects of *BL*, as a recurrent and popular techno-educational formation designed to re-make education at classroom level. We will not repeat here the arguments made in the previous papers but rather cross-refer to them where appropriate.

Here we adumbrate *a neoliberal dispositif of learnification*, and enter into conversation with critical literatures that discuss the changing forms of education and learning in digitised and datafied environments (Knox et al. 2020; Williamson, 2021), the role of the global edTech industry in the remaking of education (do Amaral, et al. 2019) and the debate on the neoliberalisation of/in education (Ward, 2012; Author, 2012). We take neoliberalism to be an art of government that involves the mobilisation of distinct techniques of power and rationalities ‘typically associated with an explosion of “market conforming” regulatory incursions’ (Peck, 2010, p. 23). This is both a matter of structure (big N) and experience (little n). As Harvey says of the latter, ‘Neoliberalism [...] has pervasive effects on ways of thought to the point where it has become incorporated into the common-sense way many of us interpret, live in, and understand the world’ (Harvey, 2005 p. 3). However, neoliberalism is not ‘a standardized universal apparatus’ (Ong, 2007) but rather a ‘migratory set of practices’. *Neoliberalisation* occurs in interaction with pre-existing social, political and cultural conditions to give rise to varied and diverse manifestations, as in Sarah’s classroom and its blended pedagogy. Our aim is to show how neoliberalism is both the incitement of our desires and our pleasures in relation to which we can perfect ourselves (as discussed more fully in Grimaldi and Ball 2020a, 2021b) and relatedly the insertion of market relations into fields of experience where the market was

previously unknown. It is ‘a peculiar form of reason that configures all aspects of existence in economic terms’ (Brown 2015 p. 15).

In this paper we attempt to explore and join-up structure and experience, mobilising the notion of *dispositif* as an heuristic device, as a permeable and fluid, strategic and technical ‘arrangement of elements and forces, practices and discourses, power and knowledge’ (Foucault, 2010 p. 29), which enables the ‘emergence’ of games of truth, functions and subjectivities. We start in Sarah’s classroom and end up in the grandiose financial world of private equity investment. We try out a method of analysis, a modest version of *dispositif* analysis, as outlined by Bailey (2013), through a work of relating between:

- *Visibilities*, that is those lines of light or optics that form shapes and give birth to specific educational objects;
- *Enunciabilities*, that is those enunciative regimes that define what is sayable and unsayable;
- *Lines of force* (power) that fill in the space between visibilities and enunciabilities, ‘acting as go-betweens seeing and saying and vice-versa’ (Deleuze, 1992, p. 160);
- *Lines of subjectification*, that is those processes of production of a subjectivity that comes into being and is made possible within the space of the *dispositif* (Deleuze, 1992, p. 161).

The point of the paper is to address the scope and complexity of this dispositif. We attempt to relate subjectivity to profit, government to market relations, the enterprising self to the financial structures of enterprise, the micro and the molar, as these are manifest in the organisation and processes of the blended classroom. This work of relating is done by focusing on a few of the many folds, points or moments (and subjects) in the *amorphous polymorphic* neoliberal *dispositif* of learnification. Given the limitations of space, we cut various corners and skim over important specificities in order to sketch the extent and diversity of this *dispositif*. It is impossible, within the space available, to ‘fill in’ the *dispositif* in its entirety, if indeed that is ever possible.

Sarah and the blended learning classroom: a fold in the neoliberal dispositif of learnification

Sarah attends a BL classroom at KIPP Empower Academy (KEA), a charter elementary school in Los Angeles. In the contemporary landscape of education, BL is a recurrent and fashionable solution designed and mobilised to ‘improve’ the experience of learning at classroom level and beyond and has garnered increasing attention from state, businesses and philanthropic actors in the past decade. KEA is an exemplary case and this motivated our choice to begin with this specific school, classroom and child in our work of relating. Thanks to the financial support by Michael and Susan Dell Foundation (MSDF), KEA has employed a BL model since 2012, using digital technologies to deliver small group and individualised instruction in all core subject areas (<https://www.kippsocal.org/empower/index>). There are a set of influential accounts KEA’s experience promoted by the MSDF, the Silicon Schools Fund, the Clayton Christensen Institute, Canvas and other global players. For us, KEA’s significance is both as an actual site where new forms of education are made possible and a specific articulation of a global form comprising global players, networks of brokers and dealers, donors and recipients, sellers and buyers, who interact in a specific moral and educational economy.

We will be using the notion of dispositif to help us think about the moment captured in this photograph (Figure 1) - a digitally mediated moment of joy, excitement, seduction and satisfaction and at the same time, we argue, in a variety of ways an everyday mundane moment of neoliberalism.

Figure 1: Sarah and the neoliberal classroom



Indeed, the photograph captures very some of the essential and paradoxical features of neoliberal education and more specifically a neoliberal blended classroom. It is what Foucault calls ‘a point of contact’, a ‘fold’ or ‘hinge’ between technologies of domination and technologies of the self, a point at which forms of power and the making of the subject intersect. That is, ‘the contact point where individuals are driven by others is tied to the way they conduct themselves, it is what we call, I think, government’ (Foucault (2005 p. 143). This moment is also part of a chain or thread, as Foucault puts it, that enmesh Sarah within a complex microphysics of mobile, transformable and reversible power relations, that articulate her as a free entrepreneurial learner. Here some ‘minute and local social practices [are] linked up with the large-scale organization of power’ Foucault (2005 p. 143).

In the following sections we will trace from this one moment a set of other points, folds and hinges that join up mundane experience and economic structures. As a starting point we draw on an array of online audio-visual and textual data on the KEA experience (official documents and evaluation reports, school, philanthropic foundations and EdTech corporations’ websites, Youtube videos on the enactment of the BL at KEA and video-interviews with KEA headteachers, teachers, technology experts and parents that were

available on Youtube channel and/or other websites) and a set of internet searches focused on the companies from which the KIPP Empower Academy (KEA) bought software and support and the funders, investors, associates and competitors of these companies.

By placing Sarah's classroom and her school in a network of relations, a heterarchy of organisations and actors, that combine to realise and are present in her moment of joy, we will follow through some aspects of the dispositif, from Sarah's keystrokes to a set of multi-billion private equity acquisitions – oscillating between a focus on relations of government and on relations of profit (see Figure 2).

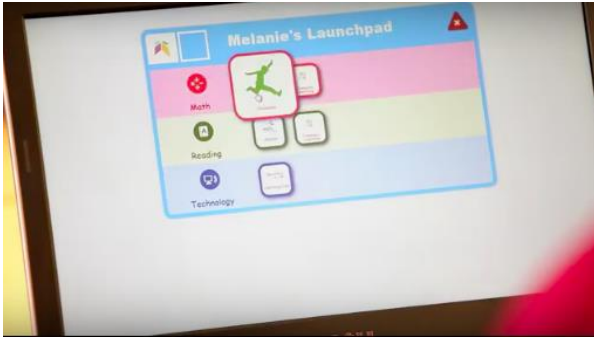
Figure 2: Sarah and a dispositif of learnification

Elsewhere (Grimaldi and Ball, 2021a, 2021b), we have discussed how Sarah's digitally mediated moment of joy, excitement, seduction and satisfaction is a critical lynchpin in extending the processes of *neoliberalisation* to the construction of a particular kind of emotional and moral self. This is a gateway or junction that connects with a wider neoliberal dispositif - an interrelated set of contemporary social technologies that organise how we relate to each other and to ourselves (Grimaldi and Ball, 2021b).

The activities of free choice, decision-making, feeling, visualisation and calculation that are evident in Sarah's moment, occur within a regulated frame where digital platforms and teaching and learning software like iStation, Compass Learning and Dreambox create the conditions for learning by establishing a navigable but folded space and fill time with different but ordered activities, imposing in this way new routes, rhythms and temporal norms on individual students (Grimaldi and Ball 2021a). This is a specific form of what (Dreyfus & Rabinow, 1983 p. 111) calls *learnification*, that is a concrete social infrastructure that frames and re-frames the educational experience within which the individual becomes the site of learning.

Sarah's moment of joy and excitement is a point in the mundane experience of an entrepreneurial learner who engages in an increasingly digitally-mediated and individualised testing of her human capital. It is a moment where she shows her educational and emotional proficiency at key cross-sectional capacities or 'soft skills': planning; the capacity for happiness; the will to discover and improve oneself; the capacity to trust oneself; the spirit of sacrifice; the attitude to accept risk. Her satisfaction makes visible Sarah's involvement in a 'psychological contract' (Paltrinieri, 2017, p. 467) that involves a commitment to self-inquiry and transformation, flexibility, proactive identification with the school goals and empathic participation in achieving a true and genuine 'entrepreneurial self' (see Figure 3).

Figure 3: Sarah's investment in learning

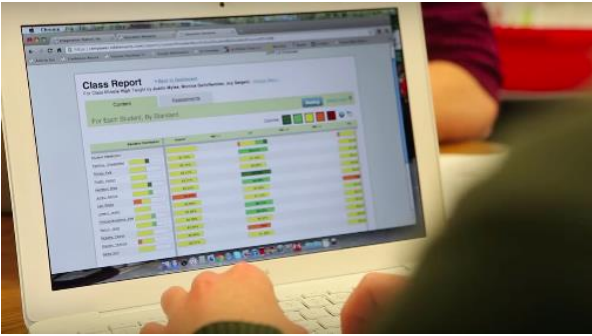


Going blended at KEA involves a technologically mediated embedding of the routines of the neoliberal aesthetic of existence into the everyday life of the school and the classroom (Author, 2017, p. 23). But in the moment captured in the photograph, Sarah is not only a child enjoying her learning, she is also very visible in other ways and, so, we can ask where is the learner in all of this? Where is Sarah?

Seeing and thinking the free learner

In the digital blended classroom, every response Sarah makes can be noted, every keystroke is recorded and stored by the software provider, and her ‘learning analytics’ are made constantly available to her teacher. Through the software platforms employed and their design principles, the ‘grey sciences’ of ‘learning science’, ‘learning analytics’ and data science operate as the new legitimate authorities ‘to produce systems of knowledge about children and to define them as subjects and objects of intervention’ (Williamson 2016, p. 401). In all of this Sarah is re-represented as a set of performances and she attains to a distinctive form of existence in so far as she is made legible within a numerical ‘signifying system’ (see Figure 4). What is at stake here is the analysis of the ‘visual and spatial dimension of government’ (Author 2019 p. 17).

Figure 4: Sarah’s moment and the calculable subject



Sarah is made both ‘machine-readable’ and modifiable (Knox et al. 2020). Arguably, she is made as a ‘thin’ subject – a calculable subject, diminished, individualised, psychologised, essentialised, decontextualised and malleable, and categorised in a hierarchical ordering of ability groups. Pedagogy (in the form of ‘learning’ software) and measurement as its concomitant, mark, compare, optimise and categorise students like her – personalise them – according to a model of normal and optimal ‘learning’. She becomes her performance and is ranked and compared in relation to other performances (Author 2019 p. 95). Educational measurement here is an hermeneutic endeavour constitutive of its very object.

In summarising the key educational implications of the KEA experience, the MSDF Blended Learning Report (Murphy et al. 2014, p. 8) highlights how:

Establishing productive, self-directed learning cultures is important for students to fully benefit from online learning. [...] Setting weekly goals for student progress as a mechanism to focus students and increase productivity was a practice that emerged across the school year in most of the schools in the study.

The blended classroom is thus also a powerful disciplinary space that is monitored and managed through the exporting of student performance data, mapped onto objectives and normalised as needed, and by the real-time production of aggregated and individualised performance reports available on the Teacher Dashboard. The free learner is turned back into an analysable and as such manipulable but very active choosing subject, through the exercise of ‘an infinitesimal power’ that takes a virtual hold upon the subject’s learning movements, attitudes and speed as she responds to the cues on her screen and taps the keys on her keyboard. The software with which Sarah engages works ‘to discipline the body, optimise its capabilities, extort its forces, increase its usefulness and docility, integrate it

into systems of efficient and economic controls' (see: Knox, Williamson, & Bryne, 2019)p. 139).

Managing the free learner

What we see in Sarah's picture is the machine and the keyboard, we see in the background rows of likewise engaged peers, what we do not see is the teacher. Where is the teacher? Or perhaps the question is 'What is the teacher'. The same questions could be asked in relation to the school principal. This brings us to another point or fold in the dispositif of learning.

In a first sense, the teacher and the school principal emerge here as managers of Sarah's learning. In the MSDF *Blended Learning Report* (Murphy et al., 2014 p. 8), classroom and learning management is identified as a key strategy to ensure the productivity of the free learner in online environments:

Strong classroom/learning lab management practices are critical to ensure student productivity in online environments. Teachers and lab monitors alike stressed the importance of establishing the proper academic culture, norms, and behavior management practices for a blended learning model to be successful.

There are periods of the school day in which Sarah does have the opportunity to engage directly with a teacher, or rather different types of teacher. However, within the mundane practices of BL there is a re-fabrication of teachers as 'technicians of behaviour', or 'engineers of conduct' whose professional 'development' focuses on 'procedural skills' (see Figure 5). The teacher becomes a manager of learning and 'data-worker', engaged in the collection/production, management, analysis, interpretation and maintenance of the flows of data that are now 'part of everyday life in modern "learning"/"knowing" organisations' (see: Knox et al., 2019). These data serve to organize, order and evaluate practices and to 'trigger' interventions. Furthermore, the classroom and its activities are recreated in a new division of teacher labour, with appropriately different levels of pay and conditions of employment, and training, certification and expertise, what KEA calls a

‘differentiated staffing model’ (another kind of blending). Budget savings can be made in the use of different combinations of these classroom workers.

Figure 5 – Redesigning the teaching division of labour at KEA

The *Differentiated Staffing Model* introduced at KEA to make the BLSRM function:

Lead Teacher	5 years average experience Certified teacher Leads full-class or small group instruction Mentor to less experienced teachers
Intervention Teacher	1-3 years experience Certified teacher Leads small groups and guides self-paced work Can advance to lead teacher
Instructional Assistant	Little or no teaching experience Certification not required Supports small groups; does tutoring and clerical tasks Can advance to Intervention Teacher

The *Professional Development* weekly duties of teachers at KEA

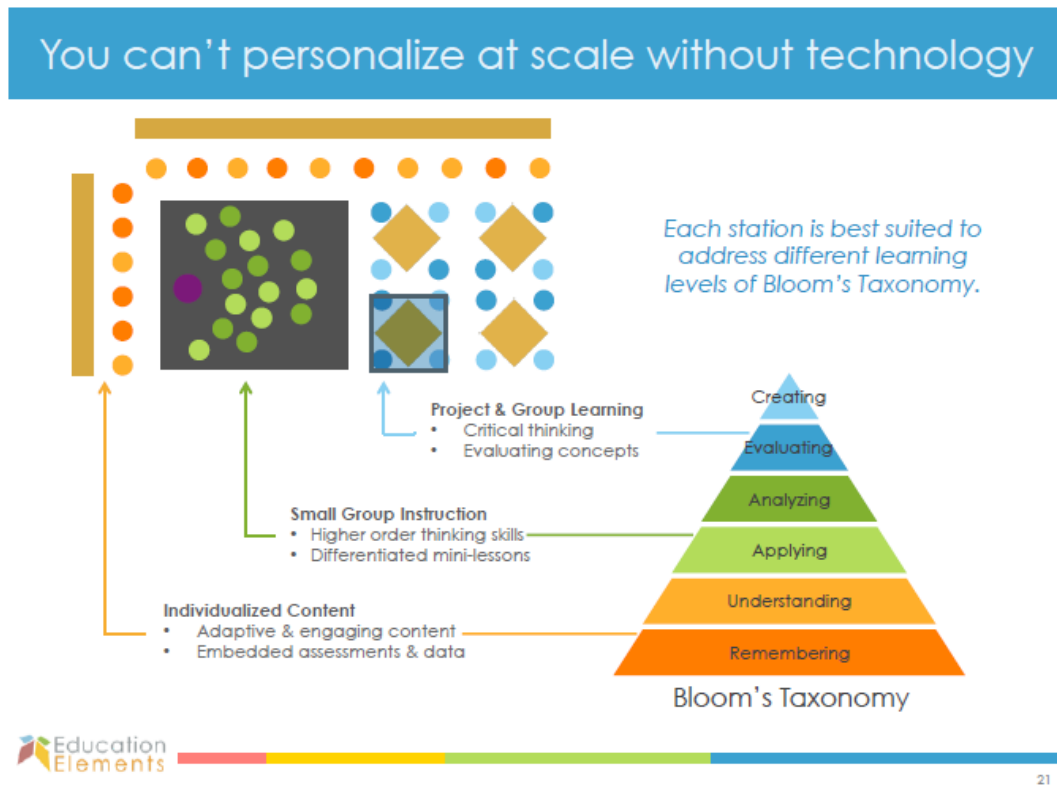
- ✓ Teachers meet one-on-one each week with Principal to discuss professional goals and progress.
- ✓ 120 minute staff PD time on Fridays, which can be used for inquiry-based learning about improving pedagogy and curriculum.
- ✓ Staff work with external expert from the Kelter Center to improve strategies for meeting the needs of special education and Tier-II and III RTI students.
- ✓ Blended learning PD focuses primarily on teacher procedural skills of operating programs correctly.

Making the managers of the free learner

In the blended classroom, just like Sarah and her peers, the teacher’s performance, the collective of student performances in one classroom, are monitored and ‘discussed’ in terms of ‘goals and progress’ with the principal. Just like Sarah and her peers the teacher is the subject and object of ‘development’, ‘intervention’ and the ‘improvement’ of their skills. Companies like Education Elements, Junyo or the Kelter Centre (see Figure 2), and online BL training sites, offer to teachers programmes of Professional Development that articulate new classroom knowledges and ways of knowing. That is, new kinds of expertise, with their own vocabulary and sets of categories through which learning can be conceptualised and organised and students can be positioned and responded to in a developmental schema (see Figure 6 for an example from Education Element). Such

schemes structure ways of knowing and of representation through which the learner is ‘made up’, and normalised – government and profit are seamlessly intertwined.

Figure 6 – Making up and normalising the free learner



Source: <https://www.competencyworks.org/analysis/interested-in-innovative-school-models-what-to-consider-to-make-sure-they-are-successful/>

The enhancement of teacher capabilities is at the same time the production of a new kind of teacher – at different levels. The re-fabrication of the teacher comes about through a proliferation of schemes, programmes and methods (software and classroom organisation), that is ‘procedures’, which the teacher is expected to ‘follow’ and use (and ‘make their own’) (Author, 2017, p. 27). Through their induction into systems of thinking and techniques of interaction these procedures, as pedagogy, are joined-up to a regime of continual measurable improvement. As in the case for the student, teachers are paradoxically recast as a particular category of learner, who is asked to continuously

appropriate (as a consumer) the latest innovations in software and educational content development, and are continuously incited/directed to update themselves in techniques for improving teaching and learning, offered at a price by consultants and at workshops, trade shows and conferences (see below). The PD events, trade shows and workshops that teachers are encouraged and enticed to attend, as (see: Knox et al., 2019) describe, are: ‘a forum for the articulation and mobilisation of pre-formed ideas about contemporary education’. The assertion of new ‘learning’ experts and expertise and authoritative non-educational voices in effect displace the judgments and experience of the traditional classroom teacher. However, there is another perhaps more profound sense in which teachers are being displaced, as fundamental aspects of classroom decision-making are taken over by the algorithmic design of adaptive learning systems and the mining and analysis of big data. That is:

... big data and adaptive learning systems are functioning to redefine educational policy, teaching, and learning in ways that transfer educational decisions from public school classrooms and teachers to private corporate spaces and authorities (see: Knox et al., 2019)

Paradoxically then the teacher is enthused, recruited, remade and residualised, all at the same time. Disciplines and discipline are reconnected: ‘throughout their attendance [at PD events and trade shows], most teachers found themselves cast as conveyors (rather than constructors) of policy knowledge – what could be described as passive policy subjects’ (see: Knox et al., 2019).

The school principal is also subject to and of such a process of enthusing, remaking and residualisation. While Sarah is experiencing her moment of joy and excitement, the principal is not in school but attending a specialised event like the Education Elements Personalized Learning Summit (<https://www.edelements.com/personalized-learning-summit-2019>), upskilling her leadership capabilities, networking and accessing ‘improvement solutions’. Or perhaps is attending the Education Elements *NEW School Rules Leadership Institute*, that is ‘designed for education leaders who want to improve how their teams collaborate, make decisions, and achieve their goals’ and learn about ‘a better way for school and district teams to meet, function and make decisions’, and thus achieve ‘better academic results, greater teacher retention, and more thriving school

systems' (<https://www.newschoolorules.com/>). These are further points, other folds in the dispositif of learning.

Based on the best selling book, The NEW School Rules: 6 Vital Practices For Thriving and Responsive Schools, the Institute provides an opportunity to learn directly from author Anthony Kim and his team of experts in change management, organizational design, and leadership [...]. **Early Bird Rate \$700, until September 15th. Full Price: \$850**

<https://www.edsurge.com/news/2018-04-26-million-dollar-advice-the-high-cost-and-limited-return-on-personalized-learning-consulting>

To this point then, we have argued that, in the blended classrooms of Sarah's school the conditions are created for the categorisation and differentiation of learners (as adaptive individual enterprises), who are at the same time encouraged to develop their own plans and projects, objectives and tactics. Here learning is driven by the imperative of the optimisation of a knowable, mutable, improvable, and eminently manipulable self. Yet, this experience of learning is also moved by 'anxiety, fear, and even dread' in relation to one's educational future. As such, learning 'may engender despair or fortitude, it frequently also generates a moral economy of hope, in which ignorance, resignation, and hopelessness in the face of the future is deprecated' (Rose and Novas 2005, p. 442). The classroom and the school are also rendered as units of optimisation – in a competitive local environment of school choice and national testing. New knowledges, new technologies and new experts are introduced to manage such optimisation and they become constitutive of the classroom experience. These techniques and technologies, such as learning software and professional development events, promise to deliver performance enhancement. These are liminal spaces at the crossroad of economy and education, market and care, *sites of persuasion* and promise and *policy intermediation* from where the necessity and possibility of education reform are promoted and circulated – **at a price**. In these sites teachers and principals are offered 'reform products', that are also opportunities for profit. The classroom and its remaking and reform are of increasing interest to small entrepreneurs and large scale, multi-national knowledge corporations (Kaplan, Wiley, Blackboard, and Pearson etc.) and private equity investment businesses (Parreira do Amaral et al. 2019). The decisions made by Sarah's principal and teachers about the purchase of software packages and consultancy

and professional development are related to points of major financial decision-making and to other kinds of entrepreneurial subject, other folds in the neoliberal dispositif of learnification.

Policy, education reform and profit

Sarah's moment then is an intersection between subjectivity and profit, between government and the digital economy – it is a quintessential neoliberal double (see Figure 2) – the satisfactions of a right answer, mediated and gifted by an algorithmic procedure and software design, enact both a form of government and a form of the commercialisation and financialisation of education.

This is a moment, among many, many others, in which a neoliberal subject is produced and is at the same time a moment within which profits of various kinds are realised (through hardware sales/software/licenses/updates/consultancy/training/keystrokes). As Rose (2001) puts it – *bio-politics* becomes *bio-economics*. Furthermore, at the same time, this moment encapsulates key features of global education reform – both in terms of new classroom practices and relations and the re-agenting of pedagogy and policy. The education policies and pedagogical decisions that produce Sarah's 'learning' environment are being made in new sorts of ways, in new places, by new actors. Let us look at and trace some of the opportunities for profit, referred to above, and in particular and importantly – *follow the money* (see: Knox et al., 2019).

It was in 2012 when KEA began to explore Blended Learning as a response to cuts in the California state school budget.

Working closely with technology firm Education Elements, KEA leadership developed a blended learning model that took into account the school's student, staff, facility and technology needs. Together with Education Elements CEO Anthony Kim, KEA leadership evaluated more than 20 potential content providers

[Based on this evaluation] the team selected iStation for ELA, Compass Learning for Math, Learning.com for Technology, and Study Island and Teachermate for at home activities. Recognizing that the market was still evolving, as was the school design, leadership took the philosophy that any content not deemed suitable could be changed out for Year 2. (MSDF Report)

We might note here the involvement of the already mentioned Education Elements (<https://www.edelements.com> - a firm whose core values are ‘*invest in each other to support growth and development, celebrate success and never stop learning*’) and in particular the role of company founder Anthony Kim. Kim stands as one example of the embodied, heterarchical neoliberal experts and advocates in the field of digital education, who animate the *dispositif of learnification*. In this field, as many others, the claim of expertise is used as a discursive device to establish ‘authoritative voices’ in the ‘politics of truth’ about education. This allows otherwise unlikely actors to partake in policy-making, and to dispense advice, at a price. That is to say, ‘These experts are enacting particular forms of ‘techno-politics’ (Ball, 2019) that link knowledge and expertise to political power in diverse and distinctive forms’ (Mitchell, 2002).

Anthony Kim is a nationally recognized leader in education technology, school design, and personalized learning. As founder and CEO of Education Elements, he has been involved in helping hundreds of schools change the way they think about teaching and learning. As the author of “The Personalized Learning Playbook, Why the Time Is Now”, Anthony has influenced many educators. He has contributed to many publications on new school models including “Lessons Learned from Blended Programs: Experiences and Recommendations from the Field” ... his work has been referenced by the Christensen Institute, iNACOL, EdSurge, CompetencyWorks, EdWeek, District Administrator, and numerous other research reports.

Anthony also founded Provost Systems, which provided online learning solutions to school districts. Provost Systems was acquired by EdisonLearning, where he served as Executive Vice President of Online. Anthony is passionate helping school district can become more nimble, understanding what motivates adult learners, and designing schools that plan for the needs of our future. (<https://us.corwin.com/en-us/nam/author/anthony-kim>)

Kim’s book, *The Personalized Learning Playbook, Why the Time Is Now*, is a reform manual, an explicit statement of expertise, a promotional device and profitable product, all at the same time. Kim’s personal *heterarchical* connections span scales from the classroom, school and school district, to state and national level, across the private sector and third sector. He is an entrepreneur and professional reformer. As Larner and Laurie note such self-styled, self-promoting ‘experts are increasingly moving between private, public and

third sector organisations, and between local, national and international institutions, reshaping these accordingly' (Larner and Laurie, 2010, p. 219).

This relationship then, between KEA and Kim is then one relay/interface, another sort of 'point of contact' in 'chains of on-going effort' that produce a coordination of otherwise disconnected processes of reform and market insertion. Technocrats like Kim as 'embodied actors ... knowingly create careers for themselves [and make money] through and against broader political-economic processes and national imaginaries' (Larner and Laurie, 2010, p. 219). As (Larner & Laurie, 2010 p. 223) puts it 'New trends in ed-tech investment, 'edu-hacking' and 'edu-entrepreneurship' are combining to produce new networks of financial and technical expertise in education...'. These actors and their investments (with investment as 'an optimising rationality') operate to '*sustain a transformative direction in reform*' efforts (Peck, 2013 p. 145 Williamson (2018 p. 219).

KEA invested (sic) (this is the right word here) \$200,000 (10% of its whole budget) in year 1 and 2 to develop its BLMS (Blended Learning Management system) and increased its technology purchases – largely computers and software – by \$147 per student (for its 231 students) as a basis for a move from non-blended to blended learning, supported by the bought-in consulting services from Education Elements.

In year 3 the 'need' to improve some BLMS functions related to analytics management in on-line and off-line learning environments required the investment of more money in technology and the establishing of a new partnership with Junyo, a bigger consulting firm and technology vendor whose aim is to 'provide data-analytics technology to businesses in the education space [to] help companies and their education customers understand student and teacher engagement' (<http://junyo.com>). The principal explained this.

We felt that by having 50 laptops in the classrooms, it freed our teachers to continue to have those small groups, even though we have dramatically increased our classes of 20 to 28 where the savings worked for us (Mike Kerr – KEA Principal).

As the MSDF case study of KEA reports (Murphy et al., 2014), building on improvements in data, KEA added new programs to its repertoire, using a combination of iReady, Typing Pal, and Achieve 3000 in place of iStation and Compass Learning for literacy and switched from Compass Learning to ST Math. In effect the combination of

cost-cutting and pedagogical innovation resulted in the redesign of the classroom and the teacher and the learner within a new set of distinctive non-symmetrical power relations where the school and its students and teachers become more and more dependent on technological devices, and the products of private and for-profit educational content providers, such as Edgenuity and Compass Learning (<https://www.edgenuity.com/edgenuity-and-compass/>) and Dreambox Learning (<http://www.dreambox.com>) and the work of intermediaries/consulting firms such as Education Elements and Junyo. The logic of the school underpinning these moves is essentially financial, both as a response to budget cuts and as an investment in performance improvement. The school acts like a business and as business-like – in both respects. There is a lot of money to be made in relation to all of this.

However, on company websites for the most part the financial aspects of software promotion and sales remain low key, it is the rhetorics of reform, of improvement, of partnership and of (social) equity that are to the fore. So - at Junyo they ‘love data. And education. And learning improvements [and] keeping it simple’. At Dreambox the mission is ‘to be a powerful learning partner in every classroom, school, and district’. ‘Our mission is to radically transform the way the world learns’ they say to schools. At Education Elements they are ‘passionate about making school a place where students love to learn’. Possibilities for profit and new market niches in the classroom are seamlessly and invisibly combined with and provide for (it is claimed) the particular educational needs of disadvantaged students, and by improving ‘learning’ and measurable learning outcomes for everyone – with an elision of the two in most cases. It is easy to lose sight of the money in all of the promotional hyperbole and technological ‘boosterism’. The existence of these companies as commercial entities is overwritten by their claims to be pedagogues, reformers – transforming the learning experience - and actors in the education policy process – as ‘dedicated’ and ‘passionate’ partners. They have a vision for our children’s future:

At DreamBox, we believe all children can excel at learning, no matter where they start, where they live, or who they are. Along with district administrators, teachers, principals, and parents, we are dedicated to helping children realize their potential. Yet every child must be challenged, encouraged, and engaged in an individual way.

That's why we developed our revolutionary Intelligent Adaptive Learning™ technology, and combined it with a rigorous curriculum and an engaging game-like environment, to change the learning paradigm.

(<http://www.dreambox.com/company>)

The claims made in these web pages become the ethical engine for profit generation and company value. These companies are seeking to take on some of the moral responsibilities of the school and the state. The financial basis of such claims is more readily evident in the business media. Here the companies address themselves to a different audience which has different interests.

DreamBox Learning is a subscription-based, online math program for elementary students. The product aims to capture market share by providing more engaging and adaptive lessons that help educators and parents raise student performance at an accelerated pace. The curriculum strategy makes the program an attractive tool for administrators, math coordinators and teachers; their target market.

<https://marketing555.wordpress.com/2013/01/28/dreambox-learning-pricing-analysis/>

The pricing of these products usually requires making a request for a custom quotation by teacher, school district, school leader or parent. In the case of iStation for example, G2, a company which claims to be 'the world's largest tech marketplace where businesses can discover, review, and manage the technology they need to reach their potential' – reports that:

Schools and districts can purchase the [ISIP assessment license](#) for \$5 per student. Schools and districts can [request a quote](#) for the Istation Reading curriculum online.

Istation has not provided pricing information for this product or service. This is common practice for software vendors and service providers. Contact Istation to obtain current pricing.

iStation. Price: Pricing varies (see site) Depending on the number of individual products purchased, per-student pricing varies from **\$5.95**-\$39 per student; campus-wide prices range from **\$1,500**-\$11,500 per campus, with a variety of plans at different price points.

(<https://www.g2.com/products/istation/pricing>)

The Investor Face

As signalled above, underpinning and behind the many small-scale ‘investments’ made by school districts, schools and parents in the learning and performance optimisation of their children is the increasing interest of private equity companies and information corporations in the profit opportunities of educational services. The organisation of the KEA blended classroom and the interface of students with learning software on computers and laptops is directly linked to and a basis for the investment decisions of these companies – both in buying up established Ed-tech providers and supporting with cash start-ups or the scaling-up of existing small businesses. The mundane activities of the elementary school classroom are the object of and are thoroughly intertwined with these global business interests. So we arrive at another neoliberal moment and another set of folds, here the financialisation of education comes directly into view, where Sarah’s efforts in the classroom, her engagement with the computer and learning software are opportunities for investment and investment returns.

Again we explore one small thread here, in a chain of financial relations, evolving over time. One piece of software in Sarah’s classroom, comes from the company Compass Learning, it is called *Odyssey*. Compass Learning asserts:

Odyssey is based on current and confirmed educational research and developed in a learning studio of highly qualified curriculum experts working alongside talented animators, script writers, and engineers. (<https://www.businesswire.com/news/home/20071113006312/en/CompassLearning-Host-Free-Webinar-Effective-Strategies-Math>)

Compass Learning (CL) was founded in 1964 (Springfield Ill) as **Prescription Learning Corp** – providing computer-based learning laboratories. This company was bought by **Jostens Inc** (seller of class rings and school memorabilia) and moved to San Diego CA in 1986. In 1999 **Ripplewood Holdings** bought **Jostens Education Software**, which thence became part of **WRC Media**. In 2000 the name was changed to **Compass Learning**. In 2006 Ripplewood bought **Readers Digest** for \$2.4bn and CL moved to Austin TX. In 2010 **Marlin Equity Partners** (\$6.7bn assets managed) bought CL from

Readers Digest for £32m (outbidding 4 other suitors). In 2017, CL was acquired by **Edgenuity** (Scottsdale AZ) (which is owned by Weld North, a private equity investor) for \$50m. **Weld North** was founded by Johnathan Grayer (ex-CEO and Chairman of Kaplan) and is funded by private equity company **KKR** (Kohlberg Kravis Roberts & Co which then had \$195bn assets managed). Weld North announced:

Edgenuity's vast K-12 online curriculum, supplemental material and instructional services are deployed at nine of the top 15 school districts in the U.S. Imagine Learning's leading animation-driven language and literacy software improves how elementary students learn English in districts across the country.

[Tweet this](#)

“With an estimated \$3.5 billion to be spent on K-12 education software this year, now more than ever educators are looking to adopt digital curriculum and solutions to improve student outcomes,” said Jonathan Grayer, Chairman and CEO of Weld North. “The acquisition aligns with our mission of delivering quality online education for students, and Edgenuity’s expanded footprint substantially enhances Weld North’s position as one of the leading forces in digital curriculum.”

August 01, 2016 02:22 PM Eastern Daylight Time

In the same year, CL acquired **Renzulli Learning** (founded 2005) from University of Connecticut. In 2018 Weld North was bought by Silver Lake Partners, a private equity firm. The company website explains:

Silver Lake is the global leader in technology investing, with about \$39 billion in combined assets under management and committed capital ... The firm's current portfolio includes leading technology and technology enabled businesses such as Alibaba Group, Ancestry, Broadcom Limited, Cast & Crew, Ctrip, Dell Technologies, Endeavor, Fanatics, Global Blue, GoDaddy, Motorola Solutions, Red Ventures, Sabre, SoFi, SolarWinds and Symantec.

Here at Silver Lake, education services and learning software and analytics sit alongside a range of other hard and soft services that compete in various domains of our social and work experience. Education services generate profit for private equity investors as part of this portfolio, indistinguishable from other assets. The ethical claims of promotion and sales, in terms of improvement, social disadvantage and equity are obscured and reduced to

hard cash and dividends. Sarah's classroom experience is up for sale and investors are interested, very interested.

Conclusion

In this paper we have identified a variety of *blendings* in/of or related to Sarah's classroom and to her excited moment of learning. Of necessity these have been dealt with fairly superficially. In attempting to sketch the *dispositif of learnification* depth has been sacrificed for breadth. That is to say, by following certain connections, addressing particular relationships, exploring specific folds and hinges in the radically heterogenous network of relations that make up the *dispositif of learnification*, we have attempted to demonstrate the condensation and inter-connection of disparate things – people (including policy entrepreneurs, teachers, principals, animators, coders, software designers and data analysts) with machines, software, knowledges, organisations, reforms, morals, designs, events, money and emotions (really and feigned) – as and within various neoliberal moments. These people, ideas and non-human actors are conjoined diversely and interact in dispersed folds on intermittent occasions – classrooms, workshops, consultancies, trade shows, conventions, PD events – and at distance through software usage, on-line training, financial exchanges and acquisitions and mergers. At different junctions and gateways money or expertise or 'learning' maybe come to the fore but are always implicit one in the other. At each point we can glimpse a relatively new set of players in the work of policy and government – and, in a sense, both the overlay of and displacement of *disciplinary* actors (teachers) and their professional knowledges, by actors of *governance* (entrepreneurs, software technicians, consultants) and their expert knowledges. Each of the points and moments identified could and should be subject to further analysis.

One contradictory consequence of these connections and moments, we suggest, is a re-crafting of the school as a site for the construction of neoliberal subjectivities and at the same time as a specific case of the extension of the economic form of the market into areas of the social where it was previously illegitimate. That is, into social domains formerly considered as being '*beyond the calculus of profitability*' (Foucault, 1976). This is a remoralisation of the school as part of a more general reframing '*of socio-moral concerns*

from within the rationality of capitalist markets' (Harvey, 2005) where doing good becomes – and seemingly is - good for business. The school is re-fashioned as an infrastructure of organisation, processes and subjects in relation to which market exchanges become a sensible and necessary form for the governing, imagination, production and consumption of education and within which the 'cost' of the teacher is a problem to be solved, and the professionalism of the teacher, is a problem to be overcome. Education policy and education reform, as shown here, '*are no longer simply a battleground of ideas, they are a financial sector, increasingly infused by and driven by the logic of profit*' (Ball, 2012, p. 27). More broadly within the *dispositif of learnification*, entrepreneurs are interpolated both in the classroom and in the private equity market. Lemke (2001, p. 195) calls this 'the universalization of the entrepreneurial form', in that business models of operating begin to craft the grid of intelligibility of a new space of government. (Lemke, 2001) calls this 'a new form of *responsibilisation*', a responsibility begets 'new forms in which the governed are encouraged, freely and rationally, to conduct themselves'. That is to say, blended learning practices act as pedagogical instruments intended to maximise student performance, but also as a political technology that contributes to the production of a neoliberal aesthetic – one of the multiple points of contact that lines of power traverse and at which subjectivities are produced. Blended learning is at the same time an enormously attractive focus for equity investments in a large and growing learning software market and for edu-businesses, start-ups, incubators, seed funders and accelerators, and the development of new products and services is thriving (Ball, 2019). This precipitates processes of commodification and financialisation that insert themselves into many of the central activities, relations, responsibilities, practices of schooling.

This is a dream scenario within the neoliberal imagination – a condensate of profit, governance and reform that marketises public schooling, opens up new commercial opportunities, displaces the state and at that same time enables the production of new kinds of consumers and workers. All of this is evident in the texts, activities and persons that promote the products and interests of Ed-tech businesses, although the passion for reform on the one hand, and the passion for profit on the other, are articulated for and directed toward different audiences.

A business model of schooling and its sensibilities and concomitant budgetary concerns lead to a focus on issues of cost, and foremost among school costs are teacher salaries; driving down wage costs can take the form of reducing the number of teachers, by introducing Ed-tech pedagogies, like *blended learning*; and/or deregulating teacher certification and employment, or by employing non-qualified teachers and/or training ‘in house’ and a reliance on ‘what works’. These new forms of teacher employment often involve a shift to non-union labour and a preference for enterprising/innovative teacher subjects.

The contemporary classroom, as noted above, cannot be reduced to a single logic, but as we write we also have the strong sense that the very idea of the classroom - its materiality, its imaginary, its articulation within policy and practice - is being fundamentally reconfigured by the processes of neoliberalisation. The work of ‘policy philanthropies’ (like MSDF) and the education-industrial complex of IT, publishing and educational businesses, foundations and think tanks, and other vested interests that promote the use of digital technologies in schools are contributing to a fundamental re-design of the ‘educational space’ as a market. This re-design is multi-faceted but above all it acts upon the meaning and ‘value’ of education, that is how education is represented and understood.

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