

The dashboard school: governing teachers, students and parents in the data-driven school

Chris Zomer, Luci Pangrazio & Ivan Matovich

To cite this article: Chris Zomer, Luci Pangrazio & Ivan Matovich (18 Jun 2025): The dashboard school: governing teachers, students and parents in the data-driven school, *Discourse: Studies in the Cultural Politics of Education*, DOI: [10.1080/01596306.2025.2519383](https://doi.org/10.1080/01596306.2025.2519383)

To link to this article: <https://doi.org/10.1080/01596306.2025.2519383>



© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 18 Jun 2025.



Submit your article to this journal 



Article views: 725



View related articles 



View Crossmark data 

The dashboard school: governing teachers, students and parents in the data-driven school

Chris Zomer , Luci Pangrazio  and Ivan Matovich 

School of Education, Deakin University, Burwood, Australia

ABSTRACT

The use of digital data dashboards is increasingly common in education. Dashboards often have visually appealing layouts and promise to make complex phenomena and large data sets visible and actionable to inform so-called 'data-driven' decision-making. In this paper we present a case-study of local dashboard governance in an independent school in Australia that recently implemented a series of dashboards created with Microsoft PowerBI. Drawing on in-depth interviews with school leaders and staff, as well as on screenshots of the dashboards, we argue that the form of dashboard governance imagined and implemented by the school, exacerbates already existing neoliberal practices in education, such as the optimisation of school metrics (mostly through standardised test data), the self-disciplining of teachers through continuous comparisons, and the 'gamesmanship' of accountability vis-à-vis parents. We conclude this paper by arguing that data-driven dashboard governance, recodes existing educational practices, creates new subjectivities, and reshapes relations within the school.

KEYWORDS

Dashboards; datafication; education; governance; neoliberalism

Introduction

Dashboards can best be described as 'visual displays' with 'the information needed to achieve specific objectives' that fit 'on a single computer screen' and 'are used to monitor information at a glance' (Few, 2013, p. 26). The promise of dashboards in education is to make teachers better informed about their students by organising and visualising education data to facilitate interpretation (Wiedbusch et al., 2021). Online Learning Platforms and Learning Management Systems (LMS) are often equipped with dashboards claiming to provide insight into students' learning (Bruun & Vejlin, 2025; Jarke & Macgilchrist, 2021; Ratner, 2024), but there are also dashboards for attendance (Martinez Lunde, 2021), behavioural tracking (Manolev, Sullivan, & Slee, 2019; Martinez Lunde, 2021) and student engagement (Zomer, 2024). Besides these 'commercial' dashboards, dashboards are also used in the policy space, for instance by the World Bank (Gorur & Arnold, 2021) and by local education authorities (Hardy, Reyes, Phillips, & Hamid, 2024).

CONTACT Chris Zomer  c.zomer@deakin.edu.au  221 Burwood Highway, Burwood, Victoria, Australia

© 2025 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

The Department of Education in the state of Victoria, Australia, where this research was conducted, has created a number of dashboards to help school leaders 'identify school strengths and potential areas for improvement' (Department of Education, 2024).

Some empirical studies have pointed out that teachers use the data on dashboards in useful ways, such as for differentiation, for identifying learning gaps and for finetuning assessments (Michaeli, Kroparo, & Hershkovitz, 2020), but also for providing feedback to students (Molenaar & Knoop-van Campen, 2019). However, Tkacz (2022) argues, dashboards cannot be reduced to individual decision-making. They are 'layered with perceptual orientations, cultural significations and epistemological qualities that format not only the data and elements that pass through it, but also the bodies and organisations that make use of it' (p. 16). Tkacz argues that dashboards are an extension of human cognition which facilitates decision-making. He uses the concept of *assemblage* to denote how this decision-making is 'networked' involving both human actors and technology.

Recent work by critical scholars has critically investigated the role of dashboards in educational decision-making. Kerssens (2023), for instance, argues that reliance on dashboards may result in a pedagogy increasingly shaped by 'platform logics' based on continuous growth and the optimisation of results. Platform logics undermine teachers' professionalism because their decision-making is now mediated by dashboards. Jarke and Macgilchrist (2021) have argued that representations of student data on dashboards frame educators as 'managers of risk' tasked with identifying students at risk. Hardy and colleagues (2024, 2025) argue that teachers have gradually come to see the continuous monitoring of student data as something that is beneficial. Yet many scholars have drawn attention to the complexities of representing decontextualised data as a source of truth (Bruun & Vejlin, 2025; Williamson, 2016a).

For some time, dashboards have been used for the purpose of making schools' performance visible (Williamson, 2016c). However, more recently the promotion of advanced analytics by edtech companies and the 'promise' of artificial intelligence (Howard et al., 2022) have created an additional impetus on schools to use dashboards in a more all-encompassing way; to not only monitor and surveil students, but also as a tool for school-wide governance and accountability. In this article, we present the findings of a case-study of how a school used dashboards for governance and decision-making, in what Gorur and Arnold (2021) have coined 'governance by dashboards' (p. 168).

Dashboard governance in education

We draw on Foucault's idea of *governmentality* to make the argument that dashboards are a new technique of governance used by schools to manage students, teachers and parents. While Foucault used the term *governmentality* to sketch the genealogy of the neoliberal state (Foucault, 2009, 2010), his ideas have been used in education research to analyse the relationships between power, institutions and education (for example, see Ball, 2012; Grimaldi, 2018; Hope, 2015; Popkewitz, 1998). Foucault defines governmentality or the 'art of government' as an

... ensemble formed by institutions, procedures, analyses and reflections, calculations, and tactics that allow the exercise of this very specific, albeit very complex, power that has the population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument. (Foucault, 2009, p. 108)

Even though Foucault's definition of governmentality is specific to the (nation) state, many of its elements apply to the 'art of government' in educational systems, which are equally comprised of an 'ensemble of institutions analyses and reflections, calculations, and tactics' with a specific kind of population (students, teachers, etc.) 'as its target'. It must be noted that Foucault (2009) identified education as a technique for the regulation and management of populations in emerging ideas of the police state in the seventeenth century (p. 321).

A number of scholars have already made the argument – leaning on Foucault's (2010) idea of *biopower* and the management of populations – that the power of numbers (i.e. statistics and comparisons) has become the very basis on which neoliberal societies are being governed (Beer, 2016; Hacking, 1990). To put it simply, we are used to comparing ourselves in terms of numbers and adapt our conduct accordingly in order to be productive and competitive citizens.

This new form of 'governance' by numbers has also been identified in school settings. Most relevant to our discussion is the widespread use of measurement of educational outcomes (Biesta, 2010) and Ball's concept of performativity (2003, 2012), which he defines as a 'technology, a culture and a mode of regulation that employs judgements, comparisons and displays as means of incentive, control, attrition and change based on rewards and sanctions (both material and symbolic)' (p. 216). With the introduction of dashboards into schools, the performative aspects of display and comparison now play an ever greater role, as data has become more widely accessible and seemingly easy to interpret with clear-cut visuals.

In recent years, a number of scholars have drawn attention to the role of dashboards in the governance of education, mostly from a policy perspective. Williamson (2016b), for instance, has drawn attention to the role of the digital in education governance, where he identifies the role of technology and tech-actors in the construction of new forms of educational expertise. Technology, he argues, is now increasingly used on both local and global level to 'guide' the conduct of those working in the educational sector. The role of the dashboard in digital educational governance, according to Williamson, is to make progress visible and, in doing-so, to create a regime of accountability for those working in education.

A good example of dashboard governance on a more global scale is Gorur and Arnold's (2021) analysis of the *Global Education Policy Dashboard*, developed by the World Bank to increase educational standards in the Global South. The implementation of the dashboard was guided by a 'sociotechnical imaginary' underpinned by normative beliefs about what a classroom is like as well as what good education entails. Furthermore, as the authors argue, the data on the dashboard are not neutral, but 'curated' and visualised in a way that make them amenable to decision-making which already implies specific solutions. They conclude that dashboards, as a policy instrument, function as a new form of neocolonialism prescribing Western ideas about good education and good decision-making.

Hardy and colleagues (2024) conducted a more local inquiry into dashboard governance by studying how various stakeholders were involved in the implementation of a data dashboard developed by a state education jurisdiction in Australia. They conclude that the dashboard was used as a form of 'anticipatory governance'. Anticipatory governance is based on 'chronological computations of serial arrangements of pasts, presents, and futures' aimed at anticipating students' futures and intervening accordingly in

order to realise these predetermined futures (Webb, Sellar, & Gulson, 2020, p. 228), which are – in the case of data dashboards – based on metrics and comparison. Hardy and colleagues (2024) identified the creation of teaching ‘subjects’ who voluntarily subjected themselves to surveillance and who became more ‘responsive’ to data. The authors also point out the new ‘expertise’ involved in the implementation of dashboards, not only through the construction of the data-informed teacher, but also through calls for having data scientists in schools. It can be argued that dashboard governance facilitates a more distributed form of educational governance, where different actors and knowledges are involved in a broader process of data-informed decision-making.

This study

This study was part of a larger project investigating the datafiction of secondary schools in Victoria, Australia. In this paper, we investigate how a data dashboard was used as a ‘technique of power’ to create new (or rather to consolidate already circulating) forms of normativity. Compared to previous work on dashboard governance in education (e.g. Gorur & Arnold, 2021; Hardy et al., 2024), this study uses the concept of governmentality on a more micro level by zooming in on a specific school. In doing so, this study aims to investigate the local nature of dashboard governance in the context of data-informed schooling and Australia’s competitive private school industry.

Ethics statement

This study obtained ethics approval from Deakin University’s ethics’ committee [reference number: HAE-23-072] and informed consent was gained from all participants.

Setting

Initially, as part of the larger research project, a comparison was envisioned between a government school, a catholic school, and an independent fee-charging school in the state of Victoria, Australia. These three school types represent *grosso modo* the different sectors in Australia’s education system, where a considerable proportion of students attend private schools compared to most other OECD countries (OECD, 2024). Independent schools in Australia receive funding from the federal government, but they also charge (sometimes exorbitant) fees to families. Fee-charging private schools often have large IT budgets which allows them to be on the forefront of digital innovation (Pangrazio, Duffy, & Zomer, *forthcoming*). For the purpose of this article, we focused on one such independent school in the Melbourne Metropolitan area.

The school, for which we chose the pseudonym Dataton Grammar, largely catered to top-tier income families. Almost half of its student population (Prep-12) spoke a language other than English at home. The school was described by the Deputy Head of Junior School as ‘very academic’ and parents as having ‘high standards’. The IT department had recently overseen the introduction of Power BI, an interactive data visualisation tool that could integrate up to 20 different reports in one dashboard. The teacher dashboard, discussed in this study, had just been rolled out in the previous year, in accordance with the school’s digital innovation plan, which was developed in 2021. The relatively high

investment in IT ‘innovation’ at Dataton Grammar and the school’s self-proclaimed aspirational identity, constituted a particularly relevant setting to analyse how schools use dashboards for governance and decision-making.

Data collection

The research team visited the school several times in 2023 to conduct in-person interviews with some of the school’s leadership team and other staff (seven in total). These interviews were audio-recorded and subsequently transcribed. Beside the principal, we interviewed the Deputy Head of Junior School, the Head of IT, the teacher in charge of Digital Innovation, the person who managed the LMS (Learning Management System), the Assistant Head of Junior Campus, and the school librarian. We also were provided with a tour of the school by the Head of Digital Innovation. The Head of IT provided us with screenshots of 5 of the 6 dashboards that were rolled out to be used by teachers and the school’s leadership team. We did not receive a screenshot of the Student Dashboard, due to privacy concerns. The screenshots have been used in this article with the school’s permission. The school’s name and logo were blurred by us to safeguard the school’s anonymity and students’ details were blurred by the school. We were also provided the school’s Digital Strategic Intent, which was developed in 2021, as well as the school’s Data Analytics Strategy, developed in the same year.

At the conclusion of the project, in 2024, we organised a presentation of our findings with some of the participants and the Head of Senior School and asked them for their input. This focus group meeting was also audio-recorded and transcribed.

For the larger project we also interviewed eight edtech professionals. However, in this article we will mostly focus on the data collected from the school.

Analytical toolbox

For this study we combined a discursive analytical approach towards our interview data with a more semiotic-oriented approach in which we examined the meaning of the visuals on the dashboard but also its technical affordances. In our discourse analysis of the interview data, we used two of Foucault’s (1982) three research foci for the inquiry into all forms of power/knowledge:

- ‘Formation and forms of knowledge and practices of veridiction’
- ‘normativity of behavior and the technology of power’ (p. 781)

In more concrete terms, we have analysed how dashboards were imagined by the leadership team as a form of knowledge and truth and how this was being legitimised as such. Questions we asked participants covered current uses of the dashboards, the rationale for implementing the dashboards and future plans for the expansion of the dashboards. An important term we will use, borrowed from Science and Technology Studies, is that of the *socio-technical imaginary*, or the ‘collectively held, institutionally stabilised, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology’ (Jasanoff, 2015, p. 6).

In order to get more insight into the actual affordances of the dashboard, we conducted a semiotic analysis of the screenshots provided by the school. The use of semiotics in the analysis of online platforms has provided fertile grounds for critical scholarship (Djonov & Van Leeuwen, 2018; Moschini, 2018; Scolari, 2009). In Science and Technology Studies, the walkthrough method (Light, Burgess, & Duguay, 2018) is commonly used to study ideological markers in learning platforms (e.g. Apps, Beckman, & Howard, 2022; Decuyper, 2019). While a walkthrough could not be performed as we did not have access to the actual dashboard, we did analyse the ‘connotations and cultural associations with respect to the imagined user and ideal scenarios of use’ (Light et al., 2018, p. 892) based on the design and visuals used in the dashboard as far as they were visible in the screenshots. Kress and Van Leeuwen’s (2005) work on ‘visual grammar’ provided tools for the analysis of visual representations such as graphs and charts. We built on the authors’ argument that line graphs present a narrative of growth by turning ‘discrete entities’ into ‘a dynamic process’ (p. 102).

Findings

Governing students: optimising whole school performance vs personalised learning

The reason for the implementation of ‘teaching and learning’ dashboards at Dataton Grammar was informed by the school’s strategic intent to create ‘data-informed decision-making across the school’ while at the same time supporting digital innovative learning with a ‘student centric-approach’ (Data Analytics Strategy). While personalised learning often refers to pedagogies accounting for individual students’ talents and needs (Campbell, Robinson, Neelands, Hewston, & Mazzoli, 2007), edtech has increasingly redefined the term to stand for measuring and predicting individual students’ performances (Williamson, 2017, 2021). We found the same data-driven rationale of personalised learning in the words of the school’s leadership team when they addressed the relevance of the dashboards. As the principal explained:

The aim of that [the dashboards] is to then – that will be the longitudinal tracking of a student through their life at school. Academic, pastoral, wellbeing, co-curricular, performance against peers, performance against benchmarks, standardised data, all those sorts of things. (Interview, Principal)

While the language of surveillance is obvious by the principal’s use of the word ‘tracking’, there is still a focus on the individual student, in that the dashboard’s aim is to ‘track’ their individual academic outputs, but also their wellbeing. There is a language of optimisation apparent in the words of the principal, where students are constantly compared to their ‘peers’ and to ‘benchmarks’. What these benchmarks are will become clear below, when we discuss the affordances of the dashboard, but based on the principals’ words we can say that the rationale of the dashboard is informed on the reduction and abstraction of individual students (Pangrazio, Stornaiuolo, Nichols, Garcia, & Philip, 2022): students are reduced to learning outcomes and abstracted into standardised metrics used to compare them.

Like the principal, the Deputy Head of Junior School also emphasised the individualised nature of the student data that can be consulted on the dashboard:

[...] and there's a dashboard that brings all of our student data together – their medical things, their student notes, all of that sort of stuff. And it allows us to understand the whole picture of the child. (Interview, Deputy Head Junior School)

The holistic view of the child as expressed by the Deputy Head and the principal is based on a rationale of standardisation and optimisation in which students are calculated upon (Williamson, 2016a). This is reflected by the affordances of the dashboards. While individual student results are indeed captured by the dashboards, the dashboards privilege whole class and cohort views instead of individual students' learning outcomes. In this way, the imagined uses of the dashboards (or its rationale for implementation) did not completely align with the affordances of the dashboards.

The Growth dashboard, for instance (see Figure 1), is mainly aimed at gaining insight into collective academic growth rather than providing a picture of individual performance. The dashboard displays the growth for a year level, and can be further specified by subjects using a dropdown menu. The individual dots represent individual students' average grade; red indicating that they have gone backwards compared to previous semester and green indicating an improvement or growth, while blue means stasis (focus group with staff). Growth is framed on the dashboard as a binary that is either there or not there, rather than as an individual trajectory. Individual students' names and details are only visible when specific dots are clicked on, otherwise they are 'anonymous'. This suggests that the cumulative view of growth is more important than individual growth. Indeed, this is in line with the rationale of performance optimisation, where looking at benchmarks (the red line on the dashboard) is given salience over individual students' learning progress.

The Class Profile dashboard (see Figure 2), which was often used by teachers for diagnostic purposes at the start of the year, is underpinned by a similar rationale of whole school optimisation. During the debrief Focus Group we had with the school staff, the variables on the dashboard were described briefly:

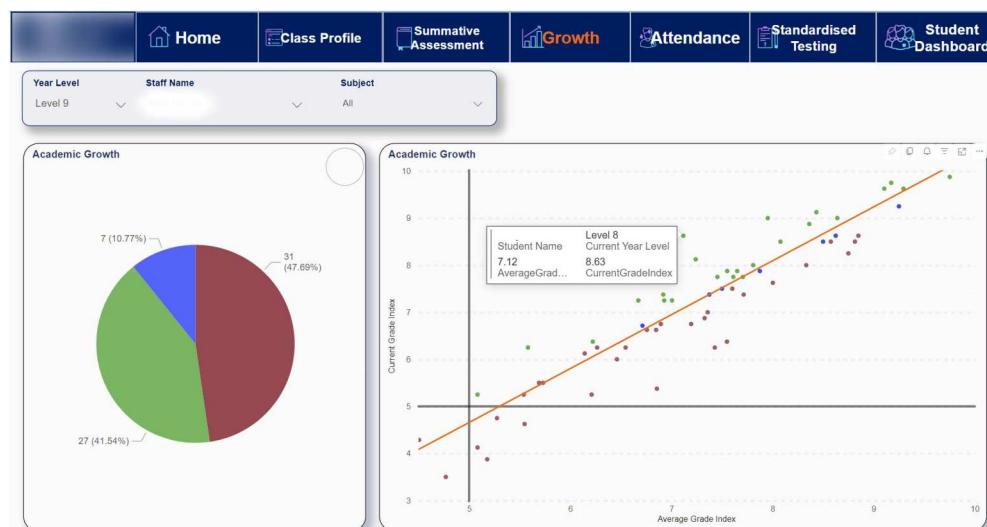


Figure 1. The Growth dashboard.



Figure 2. The class profile.

It actually tracks different information, how they are tracking against the cohort. Languages, [ethnicity], these are the flags that show us medical, individual plans et cetera. (Head of Senior School, Focus Group with staff)

The functionality of the Class Profile was primarily described through its tracking capability and cohort comparison. While the dashboard indeed allows staff to compare individual students with the cohort using the grade index, there is no temporal dimension on the dashboard. The dashboard provides mostly 'static' information, such as languages spoken at home and the presence of any medical conditions or individual learning plans for student with special needs. It must be noted that the line graph suggests a temporal dimension, in line with the language of 'tracking', but the graph merely compares individual students to the cohort average. Instead of tracking, the Class Profile is supposed to function as a diagnostic tool for teachers at the start of the year to 'get a feel' for the class, as the Head of Senior School put it (Focus Group with staff). We can see, indeed, that the Class Profile contains abundant and arguably sensitive data (such as language spoken at home, gender and ethnic background) that provides this 'feel', but which were not addressed by the leadership team in terms of functionality.

Rather than providing any pedagogical value, the data on the Class Profile dashboard follow the logic of surveillance capitalism and big data, which is suited to making inferences on large sets of data (Zuboff, 2015). It points towards a future of predictive analysis and machine-learned risk prediction where these different variables can be aggregated and calculated upon (Williamson, 2017). We were told by an industry professional that schools are keen to predict the ATAR (Australian Tertiary Academic Ranking) of individual students, based on the data this company collected on schools and fed into their AI model. It must be noted that average ATARs in Australia are published in league tables by some of the major media outlets under the rationale of parent choice (Gorur, 2013). Schools – especially private schools operating in a competitive market – have an incentive



to optimise these scores. This is reflected by both the dashboards discussed above, where collective output is given salience over individual students, visualised as variables either impeding or contributing to this collective growth. This idea of collective growth is consequently projected to the teaching staff, who are tasked with improving whole school performance, as we will discuss in more detail below.

Governing teachers: evaluations and self-discipline

It is not only the students' performance that is being governed by dashboards, but also teachers' performance. In the interview we conducted with the Deputy Head of Junior School it seemed to be an open secret that the assessment data collected from students was being used to assess teachers. Something that was equally mentioned in the Data Analytics Strategy, where '[m]onitoring teacher performance in relation to student growth' is one of the seven goals the school formulated in relation to their data practices. The Deputy Head explained it as follows:

At the moment, with the marketing to staff to get buy-in, we've not told them that the purpose of the assessment is to also track teacher performance. Because I think as soon as you do that, you end up with less reliable and valid assessments because you end up with teachers who try and rig the system or who are trying to potentially – not that I've seen this here, but I've seen it elsewhere – where teachers will say, 'No, my class is performing really well', and then maybe their class do their assessment under different conditions and the data is then skewed. (Interview, Deputy Head Junior School)

It is striking that the reason for not informing teachers about how the data are used to monitor their performance is a question around validity rather than ethics. It follows a vocabulary of *dataism*, or the 'belief in the objectivity of quantification and in the potential of tracking all kinds of human behavior' (Van Dijck, 2014, p. 201) where problems can only be imagined in terms of evidence and validity. This is highly problematic from a data justice point of view (Pangrazio et al., 2024) as teachers are involved in producing the very data on which grounds they are being evaluated. It is also striking that the Deputy Head of Junior School uses the same argument that could potentially be used to account for the varying degree in student performance. Having different students and different test conditions will unmistakably result in different outcomes for different classes, yet teachers are evaluated based on these very data.

For the Deputy Head of Junior School, the fact that teachers were able to compare each other created actionable data. As she explained, the dashboard – and the visibility of the data – gives rise to a 'more harmonious way of working':

Without creating that 'Okay, your results are low. [I'm gonna] have a conversation with you, you need to speed up and get better, and I want to see this improving in six months', by having it open and being able to talk to each other, what we find is the teacher who has the lower results ends up asking for help and saying, 'Why are my kids lower than your kids? What did you do? What was the starting point?' Maybe the starting point was lower. And the professional learning community, it becomes a more harmonious way of working with that data. (Interview, Deputy Head Junior School)

The Deputy Head of Junior School describes a sort of panoptic surveillance, or what Zuboff (1988) called 'anticipatory conformity', in which one 'accepts visibility and adapts to it by

producing behavior that minimizes the risk of unwanted discovery' (p. 345). In this case teachers are 'internalising' the metrics on which they are being judged as they are visible to all (or at least to any other teacher). They will come to understand their professionalism based on test scores and they become responsive to them (Lewis & Holloway, 2019). Teachers are incited – or at least this is how this form of governance is being imagined by the school's leadership team – to constantly compare themselves with their colleagues (or rather their colleagues' *students*) and, if necessary, improve 'their' performance.

The affordances of the dashboards support this active self-disciplining. On the Summative Assessment dashboard, class average and subject average are displayed prominently in the top right corner of the dashboard with a single number (or metric), so teachers can see directly if 'they' are performing better than the average for the subject (see Figure 3). It is also telling, in this respect, that the dashboards are primarily represented as class views, supposedly because teachers then have an overview of the class at their 'fingertips', as the principal put it, but this overview is only relevant for the very purpose of making comparisons, either between individual students or between classes or cohorts. This was also reflected by the Head of Senior School during the Focus Group while discussing the Class Profile (Figure 2):

For me as a classroom teacher, it's the class profile that I look at: where are the students sitting? Because we track their grade index, where are they sitting in comparison to other students. That's [where] I go to. (Head of Senior School, Focus Group with staff)

As such, the dashboard functions as a constant reminder that comparisons matter and should be managed accordingly. As discussed above, it is assumed that teachers have some sort of control over the performance of their students, or to be precise, the standardised test data they produce.

This assumed agency is illustrated by the design of the Standardised Testing dashboard. The accelerometers of overall NAPLAN¹ and PAT² results suggest that the indicators are easily adaptable, just as pressing down the accelerator in a car (Figure 4). The traffic light system implemented in the metres is a common feature of educational dashboards, red indicating students at risk (Jarke & Macgilchrist, 2021). However, the use of colours on the Standardised Testing dashboard is somewhat unclear. For instance, there is no green for the NAPLAN scores and the red area cover bands 0–4, while the minimum NAPLAN band for Year 9 is set by the National Assessment Program at 6. Regarding the visualisation of the PAT scores; they are expressed in stanines indicating the percentile of achievements among test-takers nationally. Rather arbitrary is the designation of a green zone for every stanine above 7 in the accelerometers, indicating the upper 89th percentile of the test-takers. For the Year 9 cohort in the screenshot above, this has not been achieved – at least not on average – suggesting that they are not reaching the (arguably ambitious) benchmark presented on the dashboard. It must be noted that no



Figure 3. Detail of the Summative Assessment dashboard.



Figure 4. The Standardised Testing dashboard.

benchmark is set by ACER, the developer of the test. Indeed, PAT scoring is a ranking system that compares students on a national level. The representation of the assessment data on the dashboard (as well as the choice for having a dashboard for standardised national test results in the first place) not only incites teachers to compare themselves with their colleagues, but also nationally with the whole student population of Australia. This again fits the rationale of whole school performance, which teachers are tasked to monitor and manage accordingly.

Governing parents: accountability and hard data

In the logic of the data-driven school, dashboards perform the function of what Ball (2003) would describe as 'metrics of accountability' (p. 223), used to bolster teacher decision-making or performance with 'hard data'. Dataton Grammar's leadership team spoke in detail about the relevance of evidence-based decision-making often at the expense of teachers' professional judgement. The Deputy Head of Junior School for instance, expressed it as follows:

Because I think one of the other key traps around assessment is that teachers can make a judgement in their head based on what they're seeing, but if they don't have evidence to back up their result or what their gut feeling is, we're acting on inference and not on evidence. (Interview, Deputy Head Junior School)

Why evidence was needed was not explicitly mentioned by the Deputy Head, but the Assistant Head of Junior Campus (who was also teaching Year 6) explained the need to have data as a form of evidence vis-à-vis parents:

So I think as long as you've got data and examples to back it up, we don't really get any parents who are, 'No, you've got to fix their result,' because we've got stuff to back up why they're there. (Interview, Assistant Head Junior Campus)

The use of dashboards for the very purpose of 'backing-up' teacher judgement was already observed by the Head of IT.

It also depends on, for example, there's a PTD, parent-teacher discussion, coming up, you will see a spike. So that whole week you will see there's a lot of people going in, because they're preparing for the discussion. Then they'll use a dashboard at the time of the meeting as well. So, they'll open it and then go through it with a parent, and they'll say: 'Hey, this is where your kid [is], anything they need to work on. hey've got a few pastoral care issues and what not. (Interview, Head of IT)

Zomer (2024) already described how engagement data can be used in parent-teacher Interviews as a form of evidence. While we do not have empirical data on how dashboards were actually being used in these parent-teacher discussions at the school, one can only imagine how they can be ‘performative’ in a way that teachers now have the ‘hard data’ to ‘prove’ how students are faring, backing-up any ‘intuitive’ pedagogical evaluations with graphs and visualisation that can provide a lustre of objectivity and authority. They can be used to remedy any negative feedback from an increasingly empowered parent population that are often critical of teaching practices, in what Brown (1990) has dubbed ‘parentocracy’. Such ‘dashboard-prompted’ meetings may limit conversations about students to what can potentially be ‘evidenced’ on the dashboard, or – at the very least – data on the dashboard will have a pivotal role in guiding these conversations.

It is striking that what the dashboard shows and what the Head of IT imagines it to be used for (e.g. the gaps in a students' learning) do not align with what is actually presented on the dashboards that may be shown to parents. The Summative Assessment dashboard, for instance, presents decontextualised data based on test results, deprived of any learning content (see [Figure 5](#)). Only the titles of the assessment are mentioned on the dashboard with their attached ID, which tells us that *Animal Farm* was the subject of these assessments, and that both a quiz and an 'Analytical Text Response' were used as

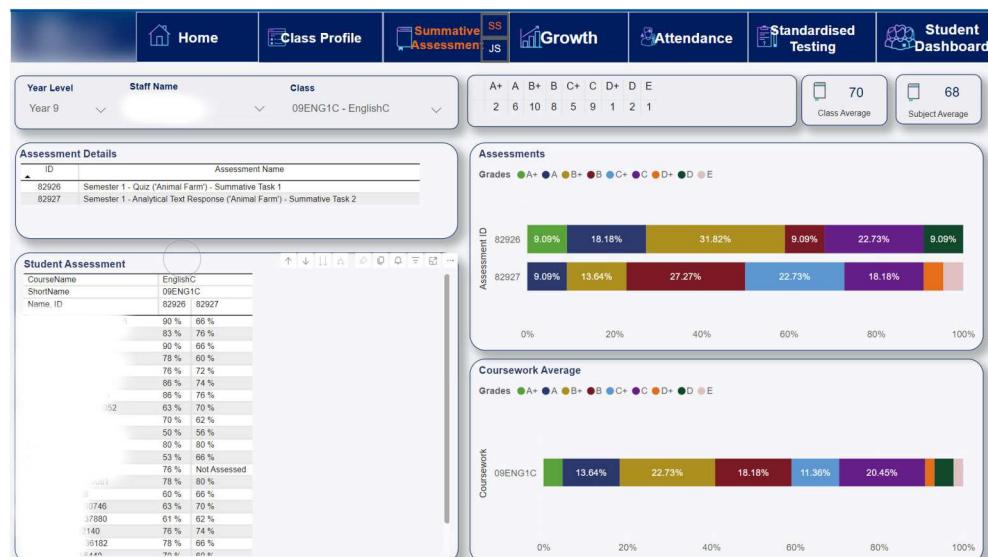


Figure 5. The Summative Assessment dashboard.



assessment tools. Colourful barcharts show the distribution of the different grades for both assessments and coursework. These charts provide information on the value of a certain grade (say B+) in relation to what other students have scored. Instead of 'concrete data' around the students' learning progress, the charts provide yet another way of benchmarking students and thereby determining what counts as 'good'. This is not only about being accountable to the parents, but it also makes parents complicit in the optimisation of the schools' metrics. This message would be readily taken up by the aspirational parents of the school who 'want their child to be achieving', and who want their child 'if they're a B ... to be an A' and 'if they're a C ... to be a B' (Interview, Deputy Head Junior School).

Discussion

In this paper we have shown how dashboards can be used as tools of local school governance. It must be noted that this form of dashboard governance was mostly imagined by the leadership team and those who were involved in the implementation and development of the dashboard. So, the picture that we have sketched of Dataton Grammar was based on these imaginaries but also on what the dashboards *could do* (their affordances) and what they represented (their semiotics).

Due to our recruitment strategy, which involved recommendations by the principal, we were not able to speak to many classroom teachers to see how they experienced and used the dashboards. As a consequence, we did not find any signs of contestation. As they were only recently rolled out, the dashboards were not used as much by the staff as IT and the leadership team had hoped. This does not take away from the powerful role dashboards occupy in the social imaginary and the push for dashboarded decision-making in schools by both edtech (Kerssens, 2023) and policymakers (Hardy et al., 2024). If anything, our account shows what the potential consequences are for this increasing dashboarding and presents a cautionary tale for the future of education which seems increasingly defined by datafication (Jarke & Breiter, 2019) and a logic of performance management and accountability (Ball, 2003).

In this discussion section, we will briefly outline the potential consequences of dashboard governance in schools. We will argue that dashboards do three things: (i) they *recode* existing practices that then become available for new forms of governance, (ii) they *create* new subjects and subjectivities to be governed, and (iii) they *reshape* relations between people and organisations.

Recoding educational practice

Dashboards change the way schooling is done. As Tkacz (2022) explains, dashboards are not only a format but they also actively *format* what they represent by 'framing some thing or activity in a specific way such that it is amenable to a pre-existing epistemic order' (p. 16). This epistemology is mostly based on economic science, because, as Tkacz recounts, from their horse-and-carriage roots, dashboards became reimagined and operationalised in managerial contexts. As such the dashboard engenders 'technological and managerial ideals' (p. 70), such as measurability, speed over accuracy (so-called 'just in time' information), and temporality over static facts. At Dataton Grammar

we witnessed constant references to this temporality, for instance, in the common use of the word ‘tracking’ even though some dashboards contained mostly static information. Sometimes linegraphs were used to represent growth, even though data was not pertaining to any time lines.

As Tkacz (2022) argues, dashboards are decision-making instruments and the data represented on dashboards are selected and arranged based on their *decision-value* (p. 168). While not all data on the dashboards at Dataton Grammar were actually used by staff, the school envisioned them as being useful for ‘data-informed’ decision-making, grounded in a rationale of optimisation. This rationale was evident in the design of some of the dashboards at Dataton Grammar which were comprised of a fair number of line graphs based on standardised test results, prompting teachers to not only evaluate and maximise their students’ outputs but also to evaluate their own performance. Both teachers and parents were made complicit in a ‘game’ of optimisation embedded in a vocabulary of efficiency and effectiveness (Ball, 2003). This form of dashboard governance is instrumental in an already existing trend – especially in the Australian context – where schools are governed much like businesses, competing for new students by maximising test results (Gorur, 2013).

This optimisation logic underpinning dashboard governance is not only apparent in how dashboards format learning results, but also in the presentation of other data pertaining to students. For instance, dashboards in learning platforms recode student engagement with a techno-capitalist ontology of user-engagement inciting teachers to optimise the time students spend online (Zomer, 2024). More recently, students’ mental health indicators are put on visually appealing dashboards for teachers to make inferences about their students’ propensity or readiness to learn (see Microsoft Reflect). While these types of data were not represented on the dashboards used at Dataton Grammar, they have the potential to play a more prominent role in the future, especially considering the drive to use ever more and different types of school data (Pangrazio, Selwyn, & Cumbo, 2023) and the (heavily promoted) use of AI to make inferences on large datasets (Williamson, 2024). Dashboards provide a way to visualise these inferences and make them amenable to decision-making.

New subject(ivitie)s

Dashboard governance implies specific ontologies about the people represented in the dashboard or those who are configured as its users. As Tkacz (2022) argues, ‘[a] dashboard facilitates ways of being ... and ways of thinking, alongside ways of relating to time, space and other people and things’ (p. 70). In other words, people come to understand themselves and others, as well as their practice through dashboards. Dashboards position teachers as subjects who are ‘data-responsive’, open to continuous monitoring and accepting constant evaluation (Hardy et al., 2024). On Dataton Grammar’s dashboards, students were reduced to dot points on a bar chart and benchmarked in order to assess collective growth. The role of the teacher then becomes more that of a ‘data scientist’ (Hardy et al., 2024), or – as the accelerometers on one of the dashboards suggest – a data-driven stagecoach driver, tasked with keeping growth ‘on track’.

Now evaluation and monitoring are common practice in corporate governance, which schools are increasingly emulating (Ball, 2003), but dashboards bring about a very specific



way of performance management through the tracking and monitoring of student data that is becoming increasingly pervasive and persuasive. Comments made by the leadership team at Dataton Grammar point at this very surveillance and evaluation of teacher performativity, in which teachers are expected to constantly evaluate themselves based on students' standardised test results and class averages. This seems to be underpinned by a logic in which teachers are made (co)responsible for growth and performance of the school because they have all the data they need to make 'data-informed' decisions.

Reshaping relationalities

Dashboard governance creates a culture of performativity and optimisation (Kerssens, 2023) that (re)shapes relations between actors working both inside and outside of the school. In his groundbreaking article 'The teacher's soul and the terror of performativity', Ball (2003) argues that schools are becoming increasingly 'performative', incentivised by metrics to account for their practice, not only to appease the school inspectors, but also to convince parents looking to choose the 'best' school for their children (Gorur, 2013). The practice of schooling is gradually turning into a hierarchy of accountability, in which school leaders are accountable to government, teachers are accountable to school leaders and parents, students are accountable to parents and teachers, and schools and individual teachers are accountable to parents. This accountability is increasingly mediated through data and data visualisations, which frame the very parameters of accountability. In the case of Dataton Grammar collective growth and student outcomes were key accountability metrics for the school and were used in parentteachers interviews as a point of reference, but also (at least informally) as a form of performance review for teachers.

We can only speculate on how data-driven accountability will change the way in which school-based actors come to relate to each other. However, the findings of this study shows that school governance is increasingly a matter of optimisation, imbued with a language of datafication and corporatisation, which increases pressure on school leaders, teachers and students to improve their metrics.

Notes

1. National Assessment Program – Literacy and Numeracy. A government funded test conducted in Year 3, Year 5, Year 7 and Year 9 to assess students' numeracy and literacy skills on a national level.
2. Standardised test instrument developed by the Australian Council for Educational Research (ACER) offered to schools for a fee.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Australian Research Council [grant number DE230100652].

ORCID

- Chris Zomer  <http://orcid.org/0000-0003-2206-4462>
 Luci Pangrazio  <http://orcid.org/0000-0002-7346-1313>
 Ivan Matovich  <http://orcid.org/0000-0001-9178-7360>

References

- Apps, T., Beckman, K., & Howard, S. K. (2022). Valuable data? Using walkthrough methods to understand the impact of digital Reading platforms in Australian primary schools. *Learning, Media and Technology*, 48(2), 294–309.
- Ball, S. J. (2003). The teacher's soul and the terrors of performativity. *Journal of Education Policy*, 18(2), 215–228.
- Ball, S. J. (2012). *Global education inc: New policy networks and the neo-liberal imaginary*. London: Routledge.
- Beer, D. (2016). *Metric power*. London: Palgrave Macmillan.
- Biesta, G. J. (2010). *Good education in an Age of measurement: Ethics, politics, democracy*. New York: Routledge.
- Brown, P. (1990). The 'third wave': Education and the ideology of parentocracy. *British Journal of Sociology of Education*, 11(1), 65–86.
- Bruun, M. H., & Vejlin, T. E. (2025). Inscribing uncertainty. Visualizing edu-automation through spatializing techniques. *Discourse: Studies in the Cultural Politics of Education*, 46(3), 379–397. <https://doi.org/10.1080/01596306.2025.2452031>
- Campbell, R. J., Robinson, W., Neelands, J., Hewston, R., & Mazzoli, L. (2007). Personalised learning: Ambiguities in theory and practice. *British Journal of Educational Studies*, 55(2), 135–154. <https://doi.org/10.1111/j.1467-8527.2007.00370.x>
- Decuyper, M. (2019). Researching educational apps: Ecologies, technologies, subjectivities and learning regimes. *Learning, Media and Technology*, 44(4), 414–429.
- Department of Education. (2024, October 28). *School performance reporting and data: advice | education.vic.gov.au*. <https://www2.education.vic.gov.au/pal/performance-reporting/undefined>.
- Djonov, E., & Van Leeuwen, T. (2018). Social media as semiotic technology and social practice: The case of ResearchGate's design and its potential to transform social practice. *Social Semiotics*, 28(5), 641–664.
- Few, S. (2013). *Information dashboard design: Displaying data for at-a-glance monitoring*. El Dorado Hills, CA: Analytics Press.
- Foucault, M. (1982). The subject and power. *Beyond structuralism and hermeneutics/harvester wheatsheaf*.
- Foucault, M. (2009). *Security, territory, population: Lectures at the collège de France, 1977-78*. London: Palgrave Macmillan. <https://doi.org/10.1057/978-0-230-24507-5>
- Foucault, M. (2010). *The birth of biopolitics: Lectures at the collège de France, 1978-79*. London: Palgrave Macmillan.
- Gorur, R. (2013). My school, My market. *Discourse: Studies in the Cultural Politics of Education*, 34(2), 214–230. <https://doi.org/10.1080/01596306.2013.770248>
- Gorur, R., & Arnold, B. (2021). Governing by dashboard: Reconfiguring education governance in the global south. In C. Wyatt-Smith, B. Lingard, & E. Heck (Eds.), *Digital disruption in teaching and testing: Assessments, big data, and the transformation of schooling*. New York: Routledge. <https://library.oapen.org/handle/20.500.12657/56671>
- Grimaldi, E. (2018). Analysing policy in the context(s) of practice: A theoretical puzzle. In S. Ball (Ed.), *Foucault and education: Putting theory to work* (pp. 32–52). London: Routledge.
- Hacking, I. (1990). *The taming of chance*. Cambridge: Cambridge University Press.
- Hardy, I., Hamid, M. O., Reyes, V., & Phillips, L. (2025). Great expectations: Understanding perceptions of the affordances and constraints of dashboard data. *Discourse: Studies in the Cultural Politics of Education*, 1–14. <https://doi.org/10.1080/01596306.2025.2453887>

- Hardy, I., Reyes, V., Phillips, L. G., & Hamid, M. O. (2024). Re-presentations and im-possibilities: The politics of dashboard data. *Journal of Education Policy*, 39(6), 986–1006. <https://doi.org/10.1080/02680939.2024.2383655>
- Hope, A. (2015). Governmentality and the 'selling' of school surveillance devices. *The Sociological Review*, 63(4), 840–857.
- Howard, S. K., Swist, T., Gasevic, D., Bartimote, K., Knight, S., Gulson, K., ... Selwyn, N. (2022). Educational data journeys: Where are we going, what are we taking and making for AI? *Computers and Education: Artificial Intelligence*, 3, 100073. <https://doi.org/10.1016/j.caai.2022.100073>
- Jarke, J., & Breiter, A. (2019). The datafication of education. *Learning, Media and Technology*, 44(1), 1–6.
- Jarke, J., & Macgilchrist, F. (2021). Dashboard stories: How narratives told by predictive analytics reconfigure roles, risk and sociality in education. *Big Data & Society*, 8(1), 20539517211025561.
- Jasanoff, S. (2015). Imagined and invented worlds. In S. Jasanoff & S. H. Kim (Eds.), *Dreamscapes of modernity: Sociotechnical imaginaries and the fabrication of power* (pp. 321–342). Chicago: The University of Chicago Press.
- Kerssens, N. (2023). Schooled by dashboards?: Learning platforms' performance-centered pedagogy and its impact on teaching. In K. Van Es & N. Verhoeff (Eds.), *Situating data: Inquiries in algorithmic culture* (pp. 241–254). Amsterdam: Amsterdam University Press.
- Kress, G., & Van Leeuwen, T. (2005). *Reading images: The grammar of visual design*. London: Routledge.
- Lewis, S., & Holloway, J. (2019). Datafying the teaching 'profession': Remaking the professional teacher in the image of data. *Cambridge Journal of Education*, 49(1), 35–51.
- Light, B., Burgess, J., & Duguay, S. (2018). The walkthrough method: An approach to the study of apps. *New Media & Society*, 20(3), 881–900. <https://doi.org/10.1177/1461444816675438>
- Manolev, J., Sullivan, A., & Slee, R. (2019). The datafication of discipline: ClassDojo, surveillance and a performative classroom culture. *Learning, Media and Technology*, 44(1), 36–51.
- Martinez Lunde, I. (2021). Emergent school leader subjectivities in digitized practices: The case of VSware. *International Journal of Leadership in Education*, 28(1), 1–21. <https://doi.org/10.1080/13603124.2021.2000034>
- Michaeli, S., Kroparo, D., & Hershkovitz, A. (2020). Teachers' Use of education dashboards and professional growth. *The International Review of Research in Open and Distributed Learning*, 21(4), 61–78. <https://doi.org/10.19173/irrodl.v21i4.4663>
- Molenaar, I., & Knoop-van Campen, C. A. N. (2019). How teachers make dashboard information actionable. *IEEE Transactions on Learning Technologies*, 12(3), 347–355. <https://doi.org/10.1109/TLT.2018.2851585>
- Moschini, I. (2018). Social semiotics and platform studies: An integrated perspective for the study of social media platforms. *Social Semiotics*, 28(5), 623–640.
- OECD. (2024, January 29). *How do public and private schools differ in OECD countries?* OECD Publishing.
- Pangrazio, L., Auld, G., Lynch, J., Sawatzki, C., Duffy, G., Hannigan, S., & O'Mara, J. (2024). Data justice in education: Toward a research agenda. *Educational Philosophy and Theory*, 1–12. <https://doi.org/10.1080/00131857.2024.2320196>
- Pangrazio, L., Duffy, G., & Zomer, C. (forthcoming). The power of the norm: How schools interpret, use and disclose education data.
- Pangrazio, L., Selwyn, N., & Cumbo, B. (2023). A patchwork of platforms: Mapping data infrastructures in schools. *Learning, Media and Technology*, 48(1), 65–80. <https://doi.org/10.1080/17439884.2022.2035395>
- Pangrazio, L., Stornaiuolo, A., Nichols, T. P., Garcia, A., & Philip, T. M. (2022). Datafication meets platformization: Materializing data processes in teaching and learning. *Harvard Educational Review*, 92(2), 257–283.
- Popkewitz, T. (1998). The sociology of knowledge and the sociology of education: Michel Foucault and critical traditions. In C. A. Torres & T. R. Mitchell (Eds.), *Sociology of education: Emerging perspectives* (pp. 47–89). Albany, NY: State University of New York Press.

- Ratner, H. F. (2024). Automation, agencies and aesthetics: The politics of data visualizations in configuring teachers' expertise. *Discourse: Studies in the Cultural Politics of Education*, 45(4), 583–597. <https://doi.org/10.1080/01596306.2024.2341765>
- Scolari, C. (2009). The sense of the interface: Applying semiotics to HCI research. *Semiotica*, 2009, 177. <https://doi.org/10.1515/semi.2009.067>
- Tkacz, N. (2022). *Being with data: The dashboarding of everyday life*. Cambridge: Polity Press.
- Van Dijck, J. (2014). Datafication, dataism and dataveillance: Big data between scientific paradigm and ideology. *Surveillance & Society*, 12(2), 197–208. <https://doi.org/10.24908/ss.v12i2.4776>
- Webb, P. T., Sellar, S., & Gulson, K. N. (2020). Anticipating education: Governing habits, memories and policy-futures. *Learning, Media and Technology*, 45(3), 284–297. <https://doi.org/10.1080/17439884.2020.1686015>
- Wiedbusch, M. D., Kite, V., Yang, X., Park, S., Chi, M., Taub, M., & Azevedo, R. (2021). A theoretical and evidence-based conceptual design of MetaDash: An intelligent teacher dashboard to support teachers' decision making and students' self-regulated learning. *Frontiers in Education*, 6, 570229. <https://doi.org/10.3389/feduc.2021.570229>
- Williamson, B. (2016a). Calculating children in the dataveillance school: Personal and learning analytics. In E. Taylor & T. Rooney (Eds.), *Surveillance futures* (pp. 50–66). Abingdon: Routledge.
- Williamson, B. (2016b). Digital education governance: An introduction. *European Educational Research Journal*, 15(1), 3–13. <https://doi.org/10.1177/1474904115616630>
- Williamson, B. (2016c). Digital education governance: Data visualization, predictive analytics, and 'real-time' policy instruments. *Journal of Education Policy*, 31(2), 123–141. <https://doi.org/10.1080/02680939.2015.1035758>
- Williamson, B. (2017). *Big data in education: The digital future of learning, policy and practice*. London: SAGE Publications.
- Williamson, B. (2021). Education technology seizes a pandemic opening. *Current History*, 120(822), 15–20. <https://doi.org/10.1525/crjh.2021.120.822.15>
- Williamson, B. (2024). The social life of AI in education. *International Journal of Artificial Intelligence in Education*, 34(1), 97–104. <https://doi.org/10.1007/s40593-023-00342-5>
- Zomer, C. (2024). How 'much' engaged are you? A case-study of the datafication of student engagement. *Learning, Media and Technology*, 1–15.
- Zuboff, S. (1988). *In the age of the smart machine: The future of work and power*. New York: Basic Books.
- Zuboff, S. (2015). Big other: Surveillance capitalism and the prospects of an information civilization. *Journal of Information Technology*, 30(1), 75–89.