

A SINGLE POINT OF TRUTH: ‘ONESCHOOL’ , QUEENSLAND’ S DIGITAL POLICY INSTRUMENT

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Abstract

This paper examines the broader social, political and technical influences on the development of ‘OneSchool’, Queensland’ s principal digital school information system, including how it has been affected by global, national and local political priorities. Exhibiting a policy duality, ‘OneSchool’ is both a policy artefact and a digital policy instrument, integral to Queensland’ s educational policy process. ‘OneSchool’ is viewed as primarily a management system, described as ‘... a school-driven initiative ... that provides a single-point-of-truth about teaching, learning, schools, the curriculum, performance and financials’ (Education Queensland, 2015). It was developed ‘in-house’ by Queensland’ s state education authority in 2007, as a replacement for the previously individual school-based management system. ‘OneSchool’ was built on a set of guiding principles that ensured compliance with mandatory processes while supporting contextualisation by schools. In a Foucauldian inspired account of the development of Queensland’ s digital policy instrument, I will present a genealogy of ‘OneSchool’ . To do so the paper draws on the analysis of interviews with elites and experts who were instrumental and influential in the development of ‘OneSchool’ as well as my personal experiences, as a business analyst with the ‘OneSchool’ development team and in policy settings that included Queensland regional and central offices.

Keywords: OneSchool, educational policy, digital policy instrument

Introduction

Queensland’ s state education authority developed a digital infrastructure, named ‘OneSchool’ that I argue allows for the co-production of power and knowledge between corporate levels and schools and plays a significant role in the digital governance of the educational system in Queensland. This research explores how the specific digital instrument, OneSchool, performs in a digital governance role across corporate and school levels, with a focus on its role in data and policy cycles. Consideration is given to the co-production of power and knowledge through the use of this state provided digital instrument that operates in all state schools in Queensland.

Like all things that occupy time, place and space, ‘OneSchool’ has a history that shapes its present and future. That history has been significantly influenced by the social, political and technical developments that occurred throughout the development years of the OneSchool project. The focus of this paper is the context, relevance and discussion of those influences. I draw on data gathered through interviews with elites, experts and key stakeholders in schools and educational corporate offices along with

relevant policy documents and survey that was used to establish a broad range of opinions from the users of the OneSchool instrument. This research will later draw upon a policy trajectory approach (Ball, 1993) as the research explores how education policies come to be understood through the ‘OneSchool’ digital infrastructure, and then how this system influences the enactment of policies at specific school sites.

Digital infrastructure, also known as digital policy instruments have become a topic of investigation globally (Neil Selwyn, Henderson, & Chao, 2015; Williamson, 2016b). To add to this global investigation, I attend to the relationship between the digital governance role of data, educational policy and the OneSchool instrument, created with code and developed through the collaboration of educators, technocrats and bureaucrats.

As this research occurs in the intersecting space created by the flow of educational policy, data and digital infrastructure, I define their use here and then use those three concepts as organising themes to provide structure for the theorising, analysis and discussion of this paper.

Educational Policy

The complexity of policy research is seen in the multiplicity of views determining what policy ‘is’. Policy is referred to as a text (Ball, 1993; Blackmore & Lauder, 2005; Jones, 2013), discourse, (Ball, 1993; Braun, Maguire, & Ball, 2010; Jones, 2013), a process, (Blackmore & Lauder, 2005; Jones, 2013) actions, (Jones, 2013) and as an ‘authoritative allocation of values’ (Lingard, 2011, p. 378). Views also differ on how, why and where policies commence. Issues may shift into political or public view, new policies may be formulated from ‘above’ and others produced at school level. Ball (1993) reminds us, that policies also have ‘different trajectories and life spans’ (p. 10). It is of interest to determine the disciplining of policy trajectories that an infrastructure such as OneSchool will have.

Ozga (2012) observed that it was the creation of a ‘policy space’, that allowed the use of policy instruments by a variety of policy actors to support the ‘organisation of networks and the flow of comparative knowledge and data’ (p. 440). I make the same observation of the Education and Training Reforms for the Future (ETRF) 2002, that saw the emergence of the Smart Classrooms strategy. The digital policy instrument, ‘OneSchool’ is a key product in the Smart Classrooms strategy for digital education. It is an artefact of a range of policies shaped by strategies, including the ICT Strategy 04-07, and follow up strategies.

A recent search in Education Queensland’s Policy and Procedure register listed seventeen policies that specifically name OneSchool as the system required for implementation. These take in policies related to student and school management, finance and facilities. This list does not include the policies that *may* be enacted with the use of OneSchool, neither does it indicate the use of data from OneSchool in the policy development cycle. It does however provide a visual of the tip of the iceberg. The impact of this trend on schools is dependent on schools’ current engagement with the OneSchool system. A Foucauldian style of power lies in a school’s freedom to

configure OneSchool to support the contextualisation of required policy enactment to each school's situation, inclusive of environment and personnel. Schools are able to configure a range of curriculum and assessment functions leading to a wide range of data being collected beyond that which is required by corporate policies.

Survey participants (155) showed that 74% were confident that state systems such as OneSchool accurately reflected current policy with 43% responding that they found information about current educational policy by going to the OneSchool instrument. A comment of 'I suppose I take it on trust', by a specialist (e.g. Guidance Officer, Therapist) from a rural school, is interesting in light of Thatcher and others' (Thatcher, McKnight, Baker, Arsal, & Roberts, 2011) findings that trust led to increased use of systems. This is also of interest considering the reluctance of specialist use of OneSchool in its initial introduction. The researching of relationships will allow the view of how 'OneSchool' influences the establishment and maintenance of learning communities such as schools and networks but also to view as Pink et al., do, the 'relationship dynamics' that determines how the digital is taken up and used in each 'cultural, social and relationship context' (Pink et al., 2016).

Data - Digital Governance

In the digital age decision-making processes have changed and organisational governance practices are 'increasingly augmented with digital database technologies' (Williamson, 2015a, p. 2). Not only has there been an increase in the rise in both the range and access to digital tools and formats such as websites, online management systems, and social media but also by the vast amount of data, frequently called 'big data' that is generated by their use. Bates et al., (Bates, Lin, & Goodale, 2016) theorised what data are, from looking at their materiality as being 'magnetic atoms of a hard drive' (p. 3) to looking at their dimensions of size, durability and mobility. They also looked at the effect that data have in enabling the ability to 'view things through an informational lens' which I theorise provides visibility to the values of the those who record, analyse and view the data. It is also the how the digital system is configured to reflect the values and sense of the locality that is made visible and encompasses thinking about 'local knowledge and the relationship between the local and global' (Pink et al., 2016, p. 124).

Selwyn (2015) reminds us that the process of data collection has been ongoing for centuries, however the shift to digital formats has seen significant increase in the 'three V's of volume, velocity and variety' (p. 64). The power of digital governance lies not just in what is included, but what is excluded. Students with a verified disability, for example, may be exempt from NAPLAN; as the principal of Goodna Special School stated in an ABC interview, 'Without that data we are left out of the conversation and then we are left out of important policy development' (ABC, 2015). The link between data collected by users and the influence on policy was noted by survey respondents (155) to a state-wide survey. The perceived association was dependent on the origin of the policy. Data being considered in school policies was frequently or often viewed by 63% of participants, while only 23% perceived that data collected would be considered at the national level. This reduction in perception of the links between data that a participant engaged with and its influence on policy could be explained by a secondary teacher participant who commented that 'The links between data and policy are rarely made explicit'. It could be interpreted that the closer in relationship to the policy creators the more visibility of the links with familiar data.

The majority of required and desired school business processes are currently completed in OneSchool, creating significant amounts of data. Selwyn (2015) writes of raw data being processed to develop greater social meaning. It is worth questioning what values are imbued in both the raw and processed

data. Can we now say that only data that is valued is processed or visible and what is visible is valued? It is worth noting that at a code level, OneSchool is a student-centric system, meaning that all data is linked to the student rather than to a school, subject, teacher or region. One of the guiding principles in the development of OneSchool was that it would become the single-point-of-truth for student information.

The concept of ‘truth’ as James (1978) described in Massumi (2011) can be related to the practical success of the use and access to the available information, when taking on a pragmatic view that something is ‘true because it is useful’. Massumi (2011) also wrote of James’s view that the ‘truth of the experience is the fulfilled expectation’ (np). Student information viewed through this lens of truth would play out in schools when a student’s information preceded the student’s commencement. Until the student has arrived at school and becomes ‘real’ in the physical sense beyond the simple sharing of their information, then as James, again said, ‘for the time being, it [the student] is plain, unqualified actuality, a simple that’ (Massumi, 2011 np). It is only after the student has arrived that the ‘single-point-of-truth can be seen, as Massumi (2011) comments, ‘[t]he truth is not “out there”. It is in the making’ (np).

Digital Policy Instruments - ‘OneSchool’

In this section I examine the background of this study including discussion of the global trend around the growing use of digital policy instruments in education, prior to focussing on the context of the specific instrument ‘OneSchool’, Queensland’s student-centred school management system. I follow Williamson’s (2015b) questioning around what software is being promoted and by whom, in the field of digital governance of education. That some of the software and digital instruments used to collect, analyse or disseminate the data used to govern education remain a mystery and ‘remain hidden’ (Williamson, 2015b, p. 84) to key stakeholder such as teachers is of significance to my discussion. I have found Ozga’s (Ozga, 2012) discussion of the role of ‘technocrats’ in determining and maintaining ‘connections and coherence in re-spatialised governing relations’ (p. 440) to be relevant to my discussion of the varied levels that stakeholders and policy actors at central office, regions and schools have in their understanding, capability and even access to the digital policy instrument, OneSchool. It is also the ‘powerful yet largely hidden influences’ (Williamson, 2016 p. 4) by lines of computer code on the governing of policy enactment in the different levels of the Queensland educational system that is the interest to this study.

Williamson (2015b) writes of the previous ‘silence in the educational technology field’ and the impact that the growing embedded nature of software and digital technologies is now having within the educational field. Manovitch (2013) called for greater attention to be placed on the development and shift of importance of software in shaping educational governance. In 2003, when Queensland looked to procure a software solution for a corporate-wide school management system, a Senior Bureaucrat (2016) commented that at that time it seemed as if the ‘industry and market place had completely ignored schooling as a market place’. Even now with the growing commentary on digital governance instruments by authors such as Lingard and Sellar (2013), Selwyn (2016), Hogan, 2016 and Williamson, (2016b), there still seems to be no offerings for a ‘one stop shop’, a fully interoperable system that is supportive of both a student-centric and corporate views that is built for the management needs of individual schools. This research aims to determine the value of such infrastructure for all levels

of an educational system in the areas of policy and data cycle with consideration of the dominant view of Queensland's educational system to improved student outcomes. This is not anticipated to lead to, infrastructure borrowing in the same style as policy borrowing. As one Senior Bureaucrat warned, 'you could sell the product and get a flop, with unions up in arms, teachers not want to use it. We had our process worked out before we had our product' .

Digital governance in the Australian educational landscape intensified in 2008 with the commencement of the National Assessment program - Literacy and Numeracy (NAPLAN). The National Assessment program was seen to provide each sector with 'information about the success of their policies' including those aimed at the improvement in achievement of 'different student groups' (Australian Curriculum Assessment and Reporting Authority, 2013).

The multiplicity of OneSchool's governance roles becomes clearer when it is viewed beside globally available systems such as Pearson's Learning Curve, which acts in a digital governance role but not as a knowledge management system. Firstly, there is the role constructed by placement of a digital instrument into a governance role by the state and secondly there is the role developed by schools' responses to that same instrument as a configurable knowledge management system providing local governance.

Methodology

Williamson (2016a), alerts us to the 'new methodological and theoretical challenges' that face those who are researching in the digital governance field and alert us to the possibility that research maybe constrained to the 'big data labs and commercial organizations' (Williamson, 2016a, p. 5). However, I would argue that it would depend on if the systems are constrained by commercial in confidence shackles, or if educational systems brave the digital governance field as partners or builders rather than simply as purchasers. The growth in the digital research field has influenced the methodologies used within this research. Blending policy and digital sociology with ethnography enables me to analyse the policy as well as the effect that policy has on people. Considering the digital and its propensity for rapid change has led me to include digital ethnography techniques and concepts to acknowledge the 'consequences of the presence of digital media in shaping the techniques and processes through which we practice ethnography, and accounts for how the digital, methodological, practical and theoretical dimensions of ethnographic research are increasingly intertwined' (Pink et.al., 2016). The focus for this paper however, comes from a genealogical approach.

Genealogy

Foucault advised those who were interested in looking at the history of subjects and topics that were political that it could only be accomplished with personal 'involvement with the struggles taking place in the area in question' (Foucault, 1980, p. 64). Having been personally involved in the early development stages of the OneSchool system and worked for, with and in the system since 2007, the development and use of this digital policy instrument has become an integral part of my professional life.

I will be studying the genealogy of OneSchool ‘like Jonah in the whale’ and in doing so I acknowledge the problems that this closeness raises, such as objectivity and independence, while also recognising that I have ‘a unique perspective and closeness to knowledge in the organisation’ (Hannabuss, 2000, p. 404). Manovitch (2013) also acknowledges the advantage of researchers who operate from within organisations and views their position as enabling them to ask the questions that others may not due to prior knowledge and previously developed relationships. They are also able to analyse data through a lens that can get both extremely close and ‘zoom out to a planetary view’ (Manovitch, 2013, p. 5). Access to elites and experts who were involved in the decision making processes and early development of OneSchool has also been facilitated by my ‘insider’ positioning.

The concept of genealogy is described by Dean (1999) as taking into account ‘social and political struggles’ (p. 42). Williamson (2016), also calls for attention to be paid to the ‘specific social, institutional, political and economic contexts’ that have facilitated the rise of new technologies. Attention also needs to be paid to the determination and reflection of the technical developments that occurred throughout the formative years of the OneSchool tool as it is an online digital platform. Such a genealogical exploration is expected to render more visible concepts of power both then and now. Whether the nature and use of OneSchool is viewed as ‘conflictual’ in a ‘power over or domination’ view or ‘consensual’ in a ‘collective version of ‘power to’ (Mitchell Dean, 2012, p. 104), will be further investigated through interviews with school and regional personnel providing a wider ‘lived’ perspective, beyond this initial investigation into the published past.

Findings and Analysis

This genealogical approach is not a process that focuses on viewing the ‘present through the past to decipher the signs of impending or accomplished catastrophe’ (Dean, 1999, p. 41) there have been substantial reviews whose aims were to determine the weaknesses or faults in process or actions that may have led to infrastructure or procedural errors. This approach maintains a view of looking at the ‘limits of what can be hoped for’ (Dean, 1999, p. 41). Some of these limitations have been articulated by Senior Bureaucrats when questioned about the future of OneSchool. One spoke of the advantages of the first time visibility corporately of school data, ‘they could have grabbed hold of it and gone, ‘this is fantastic’ but to some extent the opposite happened. No one really wanted to know that it was in production – what does that say?’ What it may say is that there are ‘limits of what can be hoped for’ within government environments where personnel are encouraged to consider the public perception of information that may be obtained by media through ‘Right to Information’ requests. As the Senior Bureaucrat pondered, ‘Can someone say how many behaviour incidences involve a gun? Maybe it’s better if we don’t know that data’. The dissonance between key stakeholders created by the differences in the perceived priorities for the development of OneSchool between the corporate policy writers and school policy enactors was and continues to be a defining characteristic in the evolution of OneSchool.

The limits seemed wide with a ‘blue sky thinking’ approach prevalent amongst the early OneSchool development team of which I was a member. A Senior Bureaucrat considering the future of OneSchool and entrepreneurial opportunities considered that even though the project had started at a very low base of understanding it meant that ‘we’ ve learnt along the way and for a whole lot of countries that’ s a really useful starting point’ . A genealogical approach will include a ‘painstaking rediscovery of struggles together with the rude memory of their conflicts’ (Foucault, 1980, p. 83). As a Senior Bureaucrat remembered, ‘there were lots of sleepless nights around the scoping of that as a corporate application across all of our school sites’ . Analysis of elite and expert interviews and an auto-ethnographic view will enable the rediscovery of the past struggles, conflicts, and dissonance between and within stakeholder groups regarding the priority afforded to the inclusion or exclusion of functions within the OneSchool development that impacted every release of OneSchool will provide insights into the present nature and use of OneSchool.

Foucault (Foucault, 1977) spoke of genealogy as operating on ‘a field of entangled and confused parchments, on documents that have been scratched over and recopied many times’ (p. 139). The very technical advances that influenced the development of ‘OneSchool’ have also enabled a wider view of those influences. The ability to search online and delve through the archives of national and state media, social media and open data sites provides further information than parchments could reveal. The policy documents that record the ‘OneSchool’ story do indeed fit Foucault’ s description, with the final documents not necessarily showing all of the struggles in their final signed-off and approved format.

Social, technical and political influences

The following section provides a snapshot of the social, political and technical happenings that occurred during the first ten years of OneSchool’ s development. Their influence was not always recognised instantly, nor explicitly. The following influences highlight the development of OneSchool as reflective of how we live in a world of information while residing in social systems that are complex and increasingly multifaceted in time, space and place.

2003 – 2005: A question of procure or build

During the first three years of development, Australia and Queensland were politically stable, John Howard, was Prime Minister and Queensland’ s Premier was Peter Beattie. This stability is important to note when considering that political terms are often shorter than policy development and reform. In 2003 it was recognised that Queensland’ s School Management System (SiMS), operating independently in each state school, required replacement. A state-wide school management system was advised and a Public Private Partnership (PPP) investigated. Such partnerships were becoming popular internationally and it was viewed that ‘The Beattie Government pioneered Public Private Partnerships’ (Pitt, 2016). Similar partnerships existing in UK schools at the time were investigated. Complications regarding the ownership of risk and responsibilities were recognised (Senior Bureaucrat, 2016). The department’ s own IT department, at that time, was not seen as capable of handling such a large and complex

task and there was reluctance to ‘own and operate’, ‘so we did the tender’ (Senior Bureaucrat, 2016).

Technological events and advances during these early years of OneSchool’s development included the launch of Skype and iTunes, Google and FaceBook and YouTube. Storage of information grew from the first 1GB SD card to USBs replacing the Floppy Disc. There was a global increase in the amount and frequency of information being stored and shared more widely. Media shifted with free-to-air digital TV airing in Australia in 2004 and Google launched the ‘sidebar’ of news stories to a user’s screen bringing the information to the consumer. Advances were not always positive, creating a wariness, the threat and consequence of failure and disruption highlighted by the Space Shuttle Columbia disintegrating and the ‘Worm of Doom’ became one of the fastest infecting internet worms.

When the tenders came in for Queensland’s proposed Management System for schools in 2004, it was realised that the ‘industry and market place had completely ignored schooling as a market place [...] there was nothing enterprise grade, nothing school administration and nothing across 1200 type schools’ (Senior Bureaucrat, 2016). Over the next three years the first and then second winner of the tender process worked with Queensland’s education personnel, but were unable to develop a system that would meet state school sector’s managed service needs. A clear picture of the system requirements of schools, regional and central office based on an ‘as is’ analysis of business processes had been developed throughout the review process and it was determined that the procurement process would not continue.

2006 – 2010: Building an infrastructure in three releases

In 2006, the decision was made to develop the school management system in-house. ‘It was very difficult to be quite honest, to work through that and then say at the end, sorry, not working’ (Senior Bureaucrat, 2016). The system was named OneSchool to promote the concept of a united and shared student record for all schools. The development team consisted of school-based personnel working as business analysts alongside contracted technical developers. Based on Kotter’s (Kotter, 1995) change management processes, a guiding coalition of 138 principals had been formed to guide development needs.

Queensland’s population passed 4 million and the transience of students caused concern. The Social Justice report of 2005 developed into the Closing the Gap policy highlighting the need for educational attendance to improve the health and wellbeing of Indigenous people. Technological figures were large; Google purchased YouTube for 1.65 million and the 1 billionth song was purchased from iTunes. The world started making comments of 140 characters thanks to Twitter. Text space in OneSchool displayed character limits for all text fields. Feedback indicated that while any limit was restrictive, there was approval for the limiting of verbosity. Cyclone Larry hit Far North Queensland and school and student records were damaged and lost. Academic Reporting dominated the initial OneSchool module due to the need for State compliance of the National student report requirements that were linked to federal education funding (Training, 2005).

2007 saw OneSchool Release 1 piloted in Guiding Coalition schools as Prep, another Smart School initiative was introduced in Queensland. QCAR led to assessment banks, comparable assessment tasks and common reporting in Queensland schools, consistency was becoming a supported concept. The Global Financial Crisis became an issue across the world. Everyday people were employed by Google to film for Street View. Changes in Australian politics saw Kevin Rudd become Prime Minister and Anna Bligh Queensland's Premier.

In 2008 all Queensland state schools had access to the new student management system called OneSchool. The apology to the Stolen Generation was made by the Australian parliament. The Australian Curriculum, Assessment and Reporting Authority (ACARA) was established to develop a national curriculum and development started on the Curriculum and Assessment module in OneSchool. This release was piloted and released in 2009, it seemed everything was turning digital from curriculum planning to digital TV channels even the Vatican had a YouTube channel. There was ongoing concern about the speed and reliability of access to the internet, increasing interest in the announcement of the National Broadband Network for Australia.

Australia's population passed 22 million in 2010 and Julia Gillard became Prime Minister. Technology was becoming more mobile and on a new iPad you could view the newly launched Australian government MySchool website, that provided visibility of school data, nationally, including NAPLAN. You could also view Instagram and OneSchool's Timetabling module although some functions were not available due to the Apple and Adobe-Flash disputes.

2011 - 2013: From project to operational status

In 2011 YouTube hosted live streams, iCloud was launched, FaceBook added Personal Timeline. Queensland suffered from the natural disasters of Cyclone Yasi and the SEQ floods, much was lost. School and student records within OneSchool remained safe. Australia's national curriculum was implemented and Queensland launched the support resources, Curriculum into the Classroom (C2C) through OneSchool.

During the next couple of years Australia changed Prime Ministers, twice. Wearable technology became popular as did temporary social media such as Snapchat. Curiosity Rover, Tweeted and posted photos from Mars. Queensland signed the federal agreement to participate in the NDIS and the federal supplementary resources, known as Gonski funding was released. The collection of the National Consistent Collection of Data led to national data collection through OneSchool. OneSchool shifted from the project phase to the operational phase.

Discussion

In discussing what software is being promoted and by whom, it is interesting to note a Senior Bureaucrat's comment that 'there was no real ownership, no real commitment' from teams within Central Office in the early days of development. They went on to add,

‘it’ s a bit like that today’ . However from my own central office experience this is more complex than it initially appears. Policy actors within Central Office have a growing awareness of and confidence in the OneSchool tool and are starting to appreciate the power that comes from providing access to information or policy procedures to every school at the same time. The complexities of making connections with not only ‘re-spatialised governing relations’ (Ozga, 2012, p. 440), but also digital governance tools, is adding to the already complex process of policy in a world of growing school autonomy.

While there has been a trend in the literature regarding socio-cultural issues in digital sociology discussions around the role of software in our society there is an emerging discussion regarding power and knowledge relationships (Heizmann & Olsson, 2015; Hislop, 2013). Heizmann and Olsson (2015) used a power/knowledge Foucauldian lens rather than a resource-based approach to highlight how power operates not just in a top down domination of control but in co-production, as people in their interactions ‘negotiate meaning in reference to existing power/knowledge relations’ (p. 759). The co-production of power/knowledge is visible in the use of ‘OneSchool’ at school level. The combination of the provision of OneSchool by the state authority that includes the required use of this infrastructure to implement specified aspects of policy and the integral design that enables it to be highly configurable by each school leader to suit the environment in which it operates. A senior bureaucrat (2016) described emphatically that the introduction of OneSchool to schools was ‘incentive and choice’ rather than mandates. This is reminiscent of Foucault’s proposal that rather than proposing particulars that can, as he saw it, ‘only have effects of domination’ . What we have to present are instruments or tools that people might find useful. (Foucault, 1988) p. 197. Schools determine how the system is to be used, configuring modules from curriculum to timetabling to suit their environment and staff. This accentuates a school’s individual autonomy rather than group autonomy. This is of interest in light of Queensland’s Director General recognition that autonomy brings the responsibility and that ‘a get school has a great school down the road’ (Watterston, 2015), calling for group autonomy rather than individual autonomy.

The field of policy forms an integral part of this study into digital governance and digital policy instruments. This study takes place in the state schooling space of Queensland’s Department of Education and Training where a policy is described by what it does, in that policies ‘outline what the department intends to do through stated plans of action’ (Queensland Government, 2012). DET views policy instruments as ‘legislation, policies, standards, procedures, authorities and delegations, guidelines and supporting documentation’ and a procedure is described as a, ‘step-by-step process that should be followed to achieve an outcome or result for the department, or on behalf of the Australian or Queensland Governments, in response to legislation, directives, standards or policy’ . It is recognised that each of these policies leads to derived regional and school level policy instruments and procedures, inclusive of a wide range of strategies, frameworks and initiatives.

Conclusion

This paper focuses on the social, political and technical influences that have shaped the development of a system now viewed as the single-point-of-truth for student data in the Queensland state school system. The principles used to establish OneSchool included the concept of a single-point-of-truth for information that was captured once and which provided 'self-service' operability anytime and anywhere by authorised users (State of Queensland (Department of Education Training and Employment), 2013). While Selwyn (Neil Selwyn, Henderson, & Chao, 2016) questions if a decade ago the pervasiveness of data to 'inform and guide contemporary schooling' (p. 2) would have been foreseen, I argue that it was clearly envisioned in Queensland's state school system. Although I debate the level of engagement and comprehension of a digital governance vision from all sections. This is a first pass to determine the political, social and technical events that have influenced the development of OneSchool. Interviews with school, regional and central office personnel will be conducted to determine the current nature and effect of OneSchool's use in Queensland's state school system. Such input will provide purpose and context to the policy and discourse analysis of policies that firstly that had direct effect on the ongoing development of OneSchool and secondly that OneSchool had an effect on in return. The next phase goes beyond OneSchool's project phase incorporating the three releases that developed a system based on stakeholder determined 'as is' business requirements. It will be possible to track back and determine more fully the history of the present, providing clarity around the role of OneSchool in disciplining policy for the future of Queensland's state schools.

References

- ABC. (2015). Maths program to help Queensland children with a disability gain employment. Retrieved from <http://www.abc.net.au/news/2015-06-08/math-program-to-help-children-with-a-disability-gain-employment/6519592>
- Australian Curriculum Assessment and Reporting Authority. (2013). Why NAP. Retrieved from <http://www.nap.edu.au/about/why-nap.html>
- Ball, S. (1993). What is Policy? Texts, trajectories and toolboxes. *Discourse: Studies in the Cultural Politics of Education*, 13(2), 10-17. doi:10.1080/0159630930130203
- Bates, J., Lin, Y. W., & Goodale, P. (2016). Data journeys: Capturing the socio-material constitution of data objects and flows. *Big Data & Society*, 3(2).
- Blackmore, J., & Lauder, H. (2005). Researching Policy. In B. Somekh, Lewin, C (Ed.), *Research Methods in the Social Sciences* (pp. 97-104). London: London.
- Braun, A., Maguire, M., & Ball, S. (2010). Policy enactments in the UK secondary school: examining policy, practice and school positioning. *Journal of Education Policy*, 25(4), 547-560. doi:10.1080/02680931003698544
- Dean, M. (1999). *Governmentality Power and Rule in Modern Society*. London: SAGE Publications.
- Dean, M. (2012). The signature of power. *Journal of Political Power*, 5(1), 101-117.
- Foucault, M. (1977). *Language, counter-memory practice* (D. Bouchard Ed.). Ithaca, Ne York: Cornell University Press.
- Foucault, M. (1980). *Power/Knowledge: Selected interviews and other writings, 1972 - 1977* (C. Gordon Ed.). Brighton, Sussex: Harvester Press.
- Foucault, M. (1988). Confinement, Psychiatry, Prison. In L. D. Kritzman (Ed.), *Politics, Philosophy, Culture: Interviews and Other Writings*. New York: Routledge.

- Hannabuss, S. (2000). Narrative knowledge: eliciting organisational knowledge from storytelling. *Aslib Proceedings*, 52(10), 402-413.
- Heizmann, H., & Olsson, M. (2015). Power matters: the importance of Foucault's power/knowledge as a conceptual lens in KM research and practice. *Journal of Knowledge Management*, 19(4), 756-769.
- Hislop, D. (2013). *Knowledge Management in Organizations; A critical introduction*. Oxford: Oxford University Press.
- Jones, T. (2013). *Understanding Education Policy: The Four Education Orientations' Framework*: Springer Netherlands.
- Kotter, J. P. (1995). Leading Change: Why Transformation Efforts Fail. Retrieved from <http://www.asbointl.org/AM/Template.cfm?Section=ASBOsCodeofEthics&Template=/CM/ContentDisplay.cfm&ContentID=2150>
- Lingard, B. (2011). Policy as number: as/counting for educational research. *Australian Educational Research*, 38, 355-382.
- Lingard, B., & Sellar, S. (2013). 'Catalyst data': perverse systemic effects of audit and accountability in Australian schooling. *Journal of Education Policy*, 28(5), 634-656.
- Manovitch, L. (2013). The algorithms of our lives. *The Chronicle of Higher Education*.
- Massumi, B. (2011). Conjunction, Disjunction, Gift.
- Ozga, J. (2012). Governing knowledge: data, inspection and education policy in Europe. *Globalisation, Societies and Education*, 10(4), 439-455.
- Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2016). *Digital Ethnography*: SAGE.
- Pitt, C. (2016). Press release [Press release]
- Queensland Government. (2012). Policy and Procedure Register. Retrieved from <http://ppr.det.qld.gov.au/Pages/default.aspx>
- Selwyn, N. (2015). Data entry: Towards the critical study of digital data and education. *Learning, Media and Technology*, 40(1), 64-82.
- Selwyn, N. (2016). 'There's so much data': Exploring the realities of data-based school governance. *European Educational Research Journal*, 15(1), 54-68.
- Selwyn, N., Henderson, M., & Chao, S.-H. (2015). Exploring the role of digital data in contemporary schools and schooling-'200,000 lines in an Excel spreadsheet'. *British Educational Research Journal*, 41(5), 767-781.
- Selwyn, N., Henderson, M., & Chao, S.-H. (2016). The possibilities and limitations of applying 'open data' principles in schools. *Cambridge Journal of Education*, 1-21.
- State of Queensland (Department of Education Training and Employment). (2013). *OneSchool evaluation 2013*. State of Queensland (Department of Education, Training and Employment) Retrieved from <http://deta.qld.gov.au/publications/strategic/evaluation/pdf/oneschool-evaluation-report.pdf>.
- Thatcher, J., McKnight, D., Baker, E., Arsal, R., & Roberts, N. (2011). The Role of Trust in Postadoption IT Exploration: An Empirical Examination of Knowledge Management Systems. *IEEE Transactions on Engineering Management*, 58(1), 56-70.
- Training, A. G. D. o. E. (2005). *Australian Government requirements for reporting to parents*.
- Watterston, J. (2015, 26-27 February, 2015). *Message from the Director-General*. Paper presented at the 2015 Principal Conference: A great school has a great school down the road, Brisbane.
- Williamson, B. (2015a). Digital education governance: data visualization, predictive analytics, and 'real-time' policy instruments. *Journal of Education Policy*. doi:10.1080/02680939.2015.1035758
- Williamson, B. (2015b). Governing software: networks, databases and algorithmic power in the digital governance of public education. *Learning, Media and Technology*, 40(1), 85-105. doi:10.1080/17439884.2014.924527
- Williamson, B. (2016a). Digital education governance: An introduction. *European Educational Research Journal*, 15(1), 3-13.
- Williamson, B. (2016b). Digital methodologies of education governance: Pearson plc and the remediation of methods. *European Educational Research Journal*, 15(1), 34-53.