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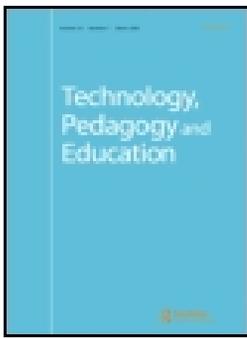
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Digital labour and temporal priorities within a secondary school

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ABSTRACT

Digital devices and ubiquitous online access contribute to the nature and amount of digital labour conducted by school staff. Drawing on more than 40 interviews with staff at one Australian secondary school, the general nature of this digital labour is presented, then Clancy's notion of *temporal autonomous spaces* is introduced and applied to theorise why some teachers used digital technologies constantly in their teaching. The article highlights how some teachers invested their time in learning about and using digital technologies because it enhanced their sense of autonomy and increased their sense of freed time. It theorises how teachers who invest their time into developing their knowledge and effective use of digital technologies in their teaching practice do so because of the perceived benefits that temporal autonomous space brings. Therefore, their practice is sustained as a high temporal priority.

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Introduction

The structures and constructs of time, that is, the *rules of time*, have always governed how schools operate. Timetables, bells, terms, calendars, vacations, schedules and diaries are examples of how schools have been structured and how schooling has been performed. Schools have been predicated by these particular rhythms of time, for example, being 'present'. Teachers and time have been the focus of research such as Hargreaves (1990), who asserted that the ways in which teachers experience time is a major constraint and element of their work.

As digital technologies are an integral element of contemporary education and increasingly shape the ways in which time is experienced in schools, digital technology use is shaped and bounded by dominant structures and 'grammars' of schooling – such as formal assessment and curriculum requirements, tacit expectations of time, space and place, alongside management regimes of accountability and performativity (see Selwyn, 2011). The fundamental nature of time means people are constantly negotiating it, are 'in' it, are using it, are spending it and are wasting it – these are theorisations of temporality.

Increasingly, the way time is passed is closely aligned with neo-liberal presuppositions. For example, capitalist constructs of productivity are linked to how effectively people are using their time to achieve (Johnson & Keane, 2017). How one's time is used or spent has become a neo-liberal measure of usefulness, efficiency, waste and productivity (Agger, 2011). Assumptions and misassumptions are evident about the 'correct' use of time embedded and reproduced via binary distinctions such as work and play, productivity and waste. Teachers regularly state they are time-poor when it comes to learning new things, including how to use digital technologies in their teaching. It has been well documented that a barrier to using technologies is time (for example,

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Francom, 2020; Kopcha, 2012). In addition, teachers can be frustrated with the amount of time students seemingly waste trying to log on to their device, connect to the network, update their software or be distracted by the entertainment the device provides (Johnson, 2019). This article outlines and then contrasts how and why different groups of teachers and principals view and use digital technologies alongside their explanations about their time. This is particularly important given everyday actions generate temporal qualities and these rhythms, practices and rituals construct our sense of time. As Bourdieu stated, 'practice is not in time but makes time' (Bourdieu, 2000, p. 206).

First, the gap in the literature this article addresses is highlighted, pointing to the tensions between educational technology research and theoretical contributions. The following sections explain the methodological approach and context of the research. Temporality and the theoretical notion of *temporal autonomous spaces* are then introduced. A brief overview describes the digital technologies used at the particular school which was the site of the research. A discussion of digital labour for teachers and for school leaders precedes the application of *temporal autonomous spaces* for teachers' use of digital technologies, resulting in sustained temporal priorities, tending to be either a high priority or a low priority.

Literature review: why temporalities and digital technologies within schools? The gap in the literature

Over many decades, researchers have explored the use of digital technologies in schools by both students and teachers (for example, Cuban, 2001; McDougall et al., 2010). Much has been done to address the (non)use of digital technologies, including teachers' attitudes and perceptions towards technologies (Vongkulluksn et al., 2018), teachers' willingness to take risks, technology's contribution to learning etc. There are complex factors for the take-up or resistance to utilising digital technologies in one's teaching (Bulfin et al., 2015; Pareja Roblin et al., 2018; Selwyn et al., 2018). Within the educational technology literature, the nature of technology-related innovation and change has been under-researched – resulting in a short-termist tendency within the educational technology literatures to attempt to describe the 'impact' and 'effects' of technology on schools (Howard et al., 2016).

Much educational technology (ed-tech) research introduces a technology or a technological innovation as an intervention within a programme for the purpose of summative evaluation (e.g. Lynch et al., 2000; Morris et al., 2016; Saxe & Kirby, 2018; So, 2016). Many studies have been completed in a bid to identify the barriers to technology use and integration (Bahçivan et al., 2018; Francom, 2020; Kopcha, 2012; Vongkulluksn et al., 2018) and have explored why digital technologies are integrated (or not) into the classroom across primary (Khlaif, 2018; Petko et al., 2018), secondary (Howard, 2013; Hur et al., 2016) and tertiary sectors (Henderson et al., 2016; Saubern et al., 2020; Selwyn, 2016), and indeed have been going on for some time (see Selwyn, 2007). Additionally, various viewpoints exist about whether digital technologies are actually useful and really make a difference to students' learning and their academic outputs (Bulfin et al., 2015). Critics debate the effectiveness of 1:1 device to student ratios (Selwyn, 2013; Shutkin, 2015), or whether in actuality, students are more distracted in this age (Hassan, 2012). Teachers' perceptions towards technologies (Khlaif, 2018), accessibility to technologies (Burke et al., 2018) and risk-aversion to technologies (Howard, 2013) have also been recognised.

Ed-tech research has been criticised for its lack of theory, or for being vague in its use of theory (Bulfin et al., 2013, 2014; Costa et al., 2019; Hew et al., 2019; Johnson, 2015; McDougall et al., 2010). Additionally, just what does constitute 'theorising' in social research or in ed-tech research has been widely debated (Costa et al., 2019; Hammond, 2018; Hammond & Alotaibi, 2017; McDougall et al., 2010). Furthermore, ed-tech research appears to privilege psychology-influenced theories such as cognitive load theory or self-determination theory (Hew et al., 2019; Johnson, 2015). While much of ed-tech research has focused on bringing about effective use of technology within teaching by teachers in order to enhance learning (for example, Saubern et al., 2020), few ed-tech studies have

theorised the *why* of technology utilisation, in preference to focusing more on the *how*, taking a descriptive, utilitarian approach. This article draws on the sociological theories surrounding temporalities to theorise *why* some teachers are enthusiastic and effective users of digital technologies. It should prove interesting to this journal's audience because of its recent focus on and inclusion of the application of theory (Apps et al., 2019; Blayone, 2019; Colton, 2019; Costa et al., 2019; Dawson, 2019; Jones & Bennett, 2017).

Little work has theorised the place or understanding of time, or temporalities, associated with teachers' digital labour and, subsequently, their use of digital technologies for learning and teaching. Duncheon and Tierney (2013) conducted a literature review identifying how conceptions of time are changing and what that means for educational research and practice, presenting a helpful historical review. Other studies have explored notions of time and temporality in higher education (Bennett & Burke, 2018) and in academic research (Lapping, 2016). For example, Shahjahan (2015) interrogated the temporalities of those in academia; however, this article is unique because it explores the subjective temporalities secondary school teachers and school leaders experienced via their use of digital technologies – what Hargreaves (1990) called a phenomenological dimension of time. In order to provide the appropriate foundation for the remainder of the article, the concept of the temporal and Clancy's *temporal autonomous spaces* is now explained.

What is the temporal?

A temporal moment is a subjective sense of time for the individual. It is something that is here and now and does not last. Duncheon and Tierney (2013) stated perceptions, skills, orientations, experiences, knowledge and realities can all be temporal. Consider constructing a portable fence – it is temporary, it is meant to last for a limited period of time and is not permanent. However, the fence is also temporal in its relation to the material world. When a reference to temporalities is made, it is from the lens of being bounded in time or being temporal. As Moran (2015) stated, temporality involves more than past, present and future; it includes duration, access and inevitability.

What is a temporal autonomous space?

In 2014, Craig A. Clancy introduced the notion of *temporal autonomous spaces*. He drew on Heidegger's *Being and Time* (1980/1927) and discussed the politics of temporality. A *temporal autonomous space* is where one invests in an activity because their subjective sense of time means the way they spend their *resourced* time enables more *freed* time. Therefore, the way they spend their time brings about a high or perhaps a low temporal priority in a particular area or focus. A temporal autonomous space is a space where what is chosen by the individual to enact is done because of the autonomous control it brings about in how the individual experiences time. Clancy claimed, 'Time, at least here, becomes one's *own* time – a personal and sovereign creative control' (2014, p. 39, emphasis in original). As time is a resource, in a temporal autonomous space, people are able to take control with a greater sense of *freed* time. Clancy further claimed:

The 'hope' of more freed time exists, then, in that with the acquiring of more time as a resource, people will be able to experience a greater diversity of time(s). It will allow people to do more things for themselves – to enlarge their sphere of autonomy. (Clancy, 2014, p. 41)

Hence, the *freed* time brought about from engaging in the preferred temporal autonomous space, perpetuates more use. In applying temporal autonomous spaces to the use and non-use of digital technologies within teaching and learning, the employment of digital technologies as a temporal (non)priority for different groups of participants is able to be theorised and used. However, the notion of 'autonomy' needs to be problematised before progressing further. When talking about autonomy, a freedom to choose and an ability to choose is assumed – relating to self-efficacy – but also is akin to a sense of agency, that is, an ability to act upon the world. Hence what may be

a *temporal autonomous space* for one person may not be the same for another individual. Given our sense of time is subjective and individual, it is important to acknowledge one's sense of autonomy and the space where that may or may not operate, must also be subjective. Within a group of people who claim to be avid users of digital technologies in their teaching, the diversity of subjective experiences surrounding temporalities and autonomy will be varied. Furthermore, the confidence level in their personal digital skills, their confidence in the school network's capability, and whether the individual is actually able to make choices surrounding their own teaching practice – these are all factors (and more) contributing to a temporal autonomous space.

Materials and methods

The larger three-year project involved three contrasting public secondary schools located in the state of Victoria, Australia, conducted by a team of four researchers. The project was based upon the premise that any study of technology-related change and innovation needs to recognise the systemic nature of educational activity and strive to develop understandings of the dynamics of how new tools become embedded in the broader 'ecology' of local practice. Briefly, the project was structured as follows. In the first year, an online survey was distributed to teachers and students of the schools exploring their use and non-use of digital technologies. The second year was ethnographic influenced, focusing on the particular sociocultural nature of each school. This ethnography was led by a research team member who focused on one school in particular and attended staff meetings, took photos and videos, composed field notes, observed classes and conducted in-depth individual interviews with staff and focus group interviews with students. This was done in a bid to explore and identify the culture of each school and ascertain 'What is going on?' (Atkinson, 2015, p. 65) – akin to the heart of ethnography. However, the research team were specifically interested in the what, how and why surrounding when technologies were used or not used within each school, particularly 'What is going on with digital technologies?' The interviews in particular focused on staff attitudes towards digital technologies generally, and then explored how their work had changed over time, specifically regarding digital labour. The third year involved consultative participant workshops and engagement with stakeholders.

Context

To provide context, a brief overview is now presented describing the kinds of digital technologies utilised within the school the research team called 'Mountview'. Digital technologies used incorporated both hardware, software, web-based apps, social media, email and Learning Management Systems (a form of a live, networked database). In this particular school, Compass was the Content and Learning Management System used to monitor attendance, behavioural incidents, communication with parents, distribution of reports and records of assessment. Some teachers also used Schoology, which at the time was a free Learning Management System that enabled students to submit assignments online, receive teacher assessment and grades, provide instant messaging opportunities and also be acknowledged with badges of reward for behaviour, attendance and achievement. A few teachers mentioned how they preferred to use Schoology as their Learning Management System as they believed Compass did not have the features Schoology provided. Other apps or websites used at the school included: Kahoot! for classroom participation through polling; watching YouTube videos; viewing PowerPoint presentations; completing various web-based, directed activities; Minecraft projects; and automated versions of clock countdown timers were projected onto screens to remind students of deadlines. The school employed a 'Bring Your Own Device' programme, and the information and communication technologies policy meant various kinds of laptops and tablets were in use by students at the time of the study.

Ethical considerations

Approval to conduct this research was obtained from the university's human research ethics committee CF15/532 – 2015000255. Support websites used at the school included: Kahoot! the principals of each school. Upon commencement of the project, all staff were informed about the project and invited to participate via a presentation at a staff meeting informing them about the project, followed up by further invitations to participate at campus staff meetings. Informed written consent was obtained from every participant, and adherence to accepted ethical procedures was ensured. Participants could withdraw from the research at any time without penalty. All of the seven principals (lead, deputy, campus) were invited to be interviewed and consented to do so. All of the interviewees mentioned in this article were provided with an information letter about the project and a list of questions prior to the interview, and all signed a written form to verify informed consent.

Sample

This particular article is focused on more than 40 in-depth, individual interviews the author conducted with teachers and school leaders at Mountview (some staff were interviewed multiple times). Mountview had almost 1200 students from year 7 – year 12, and had three main campuses and two satellite campuses bi-located in two towns within a low socio-economic, rural area. Staff included almost 100 teaching staff and approximately 50 non-teaching staff. These interviewees included teachers (24, sixteen were male), teacher aides (2, both female), librarians (3, two were female), information technology support staff (2, both male), wellbeing coordinators (2, one male, one female) and principals (7, five male). There was one principal who oversaw the entire school, and at the junior campuses there was a campus principal and one or two assistant principals.

To indicate the focus of the completed interviews, (approximately 30–45 minutes in length), some key interview questions are now listed:

- What changes have you noticed over time surrounding how you use digital technologies?
- What demands and challenges do you negotiate every day in your workplace with digital technologies?
- What supports have been helpful for you in utilising digital technologies and software in the school?
- What do you think about the current Bring Your Own Device scheme here?

Incorporating temporal autonomous spaces and priorities

Findings from the overall research have been previously published in a research monograph (Selwyn et al., 2018), in 'ed-tech' journals (Johnson, 2019; Selwyn et al., 2020, 2017a) and comprehensive educational research journals (Bulfin et al., 2016; Selwyn et al., 2017b). The rationale for this particular article came about from the author's professional reading about the acceleration of time and space (Rosa, 2013), networked time (Hassan, 2007) and Judy Wacjman's *Pressed for Time* (2015). In closely reading and re-reading the transcripts of the interviews the researcher had personally conducted at Mountview, it was notable how often the interviewees talked about time. The participants were increasingly aware of the compressions on their time, and in reflection on how their work had changed, they identified they were asked and expected to do more in the same amount of time. The sense of constraints and limitations on their time, and the lack of available time, were regularly mentioned, so a re-analysis of all the interview data occurred according to theories of time, temporalities and Clancy's notion of *temporal autonomous spaces* (2014). Consequently, two additional research questions were designed to address these emergent themes. They were:

- How does digital labour in a secondary school shape temporal autonomous spaces?

- How does digital labour in a secondary school heighten or lessen autonomy and shape temporal priorities?

The theoretical concepts of temporal autonomous spaces and temporal priorities shaped the thematic analysis and ultimately led to the theoretical contribution this article makes – theorising the deployment of digital technologies in one’s teaching practice, drawing on the concept of *temporal autonomous space* to explain temporal or ongoing priorities.

The digital labour generally experienced by teaching staff at Mountview is now explained, followed by a description of the school leaders’ digital labour. A theoretical application of the *temporal autonomous space* concept to the regular use of digital technologies in one’s teaching practice is provided, drawing on the concept to theorise the use and employment of digital technologies as a temporal (non)priority.

Results: digital labour for teachers at Mountview

The use of electronic mail, electronic databases, the reliance on the Web and the arguable need for social media to be employed when marketing one’s work (or profile) is an addendum to almost every job or career or vocation over the last few decades. For many Mountview staff, they realised and appreciated digital technologies helped them to complete certain tasks and enabled them to communicate quickly in broadcast form (via email) when needed. But it also meant they were expected to do more with digital technologies in the same time. For example, the Content Management System (CMS, sometimes also used as a Learning Management System) utilised at the school – Compass – required each teacher to record attendance for each learning period. First, this meant the network needed to be up (as opposed to colloquially being ‘down’), working (at a usable speed), and that they were able to log on. The school administrators were then able to know if students were missing, meaning they could communicate to parents or to school leaders about unexplained absences (as an example). Second, the state government also required paper copies of ‘rolls’ to be completed in addition to this school requirement – therefore the labour was duplicated. Typically, the network would slow down around the beginning of each learning period due to the numbers of teachers logging on to record attendance, as well as students being asked to access the network. The digitised practices could not be enacted if there was no power, or if the network was not functioning effectively, so teachers would have to revert to paper-based practices in those situations.

Within Compass, a traffic light system was deployed so when a red light flashed up beside a student’s name, a serious incident had occurred that warranted attention – triggering a message to the school office and leaders that an issue needing their support had arisen. If the power was disconnected/unavailable, or the network was down, a note to the office had to replace the digital practice.

During the project, it became mandatory all school reports would be completed digitally and communicated via Compass (available in web form and as a smartphone app). Parents then had to log on to Compass to read their child’s school report. They were no longer available in printed form. For the low digital literacy parent with poor Internet connectivity, it would be a disadvantage. For those teachers who were slow typists or had lower digital literacy skills, more time would be needed to complete these online reports. Their labour was being digitised whether they liked it or not. Wajcman (2008) poignantly pointed out technologies can change the nature of current practices as well as create new ones.

Teachers talked about separating themselves from work in order to disengage mentally and emotionally, as some felt their anxiety and fatigue were heightened and induced from their experience of seemingly always being online. Examples included only using school computers to check their email, not having school email on their smartphones, or only having school email on their iPad, but not taking their iPad with them when they went out for leisure purposes (outside of school

hours). For example, 'I haven't stopped doing out-of-hours stuff but just for that time [when out with friends, etc], I'm just trying to be in the moment' (female teacher, aged 30–40). Another strategy was to only have emails available when they had Wi-Fi which for them, meant only at school (work), or at home. Another experienced teacher commented, 'It's just another example of how we've developed all this wonderful technology but we haven't as yet caught up with the ethics and the morals and the protocols that make us balance our life' (female teacher, aged 50–60). However, in contrast, a year-level coordinator (and a technological enthusiast/high user) commented,

I have a lot of parents contacting me now outside of hours when they've finished work. They like a response straight away. They want to know you've read the email and will address the issue tomorrow. (Female leading teacher, aged 20–30)

This leading teacher (who had a higher level of responsibility than a 'teacher') felt that because of her increased responsibility she needed to be more available and utilise the digital technologies in an effective way than if she just worked during school hours. Agger (2011) appropriately pointed out how email is a paradigm of time theft, and a tension lies between accountability and connectivity in the era of the smartphone (or mobile device).

It is apparent teachers' work has intensified with the use of digital technologies, yet they are not allocated more time to complete these digital tasks. One teacher of senior students remarked,

If I've got 5 on [colloquial phrase for teaching all day for each of the five periods], when am I meant to check my emails and action those really important things that I'm supposed to be on top of when I'm actually meant to be working with the students in my classroom?

All these aspects are expected to be part of a teacher's practice (their digital labour), yet time is not given to teachers during the school day – it is something done on 'top' of their teaching.

Digital technologies facilitate electronic communication, consumption and production, yet their use is closely aligned with a teacher's sense of whether their productivity is enabled, increased or decreased. There are not only implications for school technology in the support and enhancement of learning; it needs to be better recognised as a key element of how teachers labour and how teachers live.

Digital labour for school leaders at Mountview

For many of the principals (school leaders) who were interviewed at Mountview, their use of digital technologies for communication (predominantly email) meant it increased the capacity for when they could communicate to colleagues and how much could be communicated. Their subjective sense of time meant their productivity was increased, therefore it was a sustained priority. The principal who oversaw the entire school stated:

I can communicate with more people more quickly and give them the same message ... certainly across a five campus organisation it saves me a lot of time travelling and communicating the same message over and over again. Still it doesn't replace anywhere near personal contact but it allows you to give people the information before you go to see them, they can think about it, form a view and have an opinion before you begin the conversation rather than hand out the documents at the start of the meeting and so on. (Male principal, aged 50–60)

For these principals, the sense of temporal control was increased for their communication, but it changed the way they communicated and also what was communicated. As an example, another campus principal stated,

I create more documents that I have in the past and communicate a lot more through written means than conversation. ... in the past if I had to communicate a message I would often go and face to face speak with a staff member or a series of staff members whether it's at a meeting or individually. Whereas now I can do that through email and so the quantity of communication has probably increased but the type of communication has changed and there's less face to face than what I did previously ... So I think it [technology] actually consumes

time as well in that sense so the time I save on one hand from doing certain tasks is consumed by time spent engaging with technology for other things that I wouldn't have done. (Male campus principal, aged 40–50)

The same campus principal also noted in reflection how more insignificant things were communicated by email that previously would not have been communicated at all. The convenience of sending an email at any time or location about any minor issue provided some digital technology users some autonomy and temporal control. The principal believed that before email, minor issues may have been put aside (not mentioned or communicated at all) because of the time and effort required to write a formal letter or make an appointment to see the school leader in person. While the use of email dominates this section, the other predominant use of digital technology use for school leaders was accessing and utilising Compass to communicate with staff and keep abreast of developments with particular students.

It appeared these digital technologies had in fact altered priorities according to the temporal autonomy that was enabled, albeit through flexible approaches to when one would work, especially considering childcare and home responsibilities. A female campus assistant principal claimed her online access and mobile technologies meant she was able to deal with most things almost immediately, but as a consequence, people expected this immediacy to be ongoing all of the time. She worked through this saying she would,

consciously put my phone on silent or not check things after a certain time to – in order to have that break from things, because people feel like they can just contact me 24/7, because teachers, parents text me, email me just – they'll send Facebook messages whatever and it can be any time of day or night, Saturday, Sunday doesn't matter, so then it's about setting some boundaries around responding to things. (Female campus assistant principal, aged 30–40)

However, her high digital technology usage meant she was able to choose a chunk of time to 'respond for thirty minutes to emails so it doesn't clog up my day the next day'. She chose particular temporal moments convenient for her to answer and respond to emails to ensure her email did not build up.

While staff were required to use digital technologies to record attendance, incidents, and complete reporting, they were also expected to read (and respond to) email from colleagues and parents. Some parents also communicated via texting (via their mobile phones) or Facebook (closed group) with the child's teachers. Different levels of confidence, comfort and capacity were evident in terms of digital literacy, evidenced by two-finger typists who were reluctant users, to IT 'whizzes' who taught information technology as a subject. Teachers were expected to have their own laptop, but, in this school, a laptop was not provided for them. Teachers had to pay a fortnightly lease (deducted from their pay) in order to have a school-provided laptop. So, one side of digital labour in this school was the rudimentary, everyday use that just 'has' to be done. It appears digital labour is being *done* to school staff, similar to many other workers' lives. The other side of the continuum relates to teachers' autonomy in how, when and why they use digital technologies for teaching and learning purposes. This encapsulates going beyond the 'have to' to 'I want to' because they perceive advantages or benefits (affordances) for classroom pedagogy. This could be considered as digital labour *for* them, that is, a choice they make.

Now the digital labour associated with the general nature of teaching and school leadership has been discussed, a theorisation of teachers' digital technologies' usage is provided drawing on the notion of *temporal autonomous spaces*, to suggest their digital technology use in their teaching practice is a high or perhaps a low temporal priority.

Discussion: theorising temporal autonomous spaces for teachers' use of digital technologies

Generally speaking, there were two groups of teachers – one group used digital technologies a lot in their teaching, and the other group only used digital technologies when they *had* to. Those who use

digital technologies daily (and in every teaching session) deem it to be a quality use of time, a marker of their practice, and therefore for them, it became a sustained temporal priority. In considering the rationale for using digital technologies, their sense of the time involved in setting up the use of the Content or Learning Management System, the testing of software, the recommendation to students regarding the benefits, and the impact on engagement and learning appears a highly personal one. The rationale for using or not using digital technology appears to be aligned with their subjective sense of temporal control. For the teachers who were frequent digital technology users, their high temporal priority was and is sustained because they perceive they have more *freed time* in their *temporal autonomous space* (Clancy, 2014). Those who believe in the importance of digital technology use in their teaching practice tend to intrinsically value and prioritise its use. It becomes an ongoing priority, because they have invested considerable time over a long term as a sustained temporal priority. They take risks with its implementation and have efficacy about their ability to use it effectively. More specifically, that might mean a teacher takes on the role of a 'technical support officer'. For one avid user of technologies, she would spend half of every class for the first three to four weeks of term one ensuring logins, passwords, access and usability through fixing technical errors (female leading teacher, aged 20–30). For others, their confidence in their ability to learn new aspects of technology meant subsequent benefits:

I have a pretty positive attitude to digital technology. I think when you can use it, when you know how to use it in the classroom it can be quite effective and it can get the kids on board, engaged as well because they're exposed to it all the time. (Male teacher, aged 20–30)

If I want to learn something on an IT sort of level I probably want to learn it in a reasonable level of depth And you either get to a point where you learn it and like it and use the program, or you get annoyed with it and you discard it. (Male teacher, aged 50–60)

Their self-efficacy or belief in their ability to learn technical skills meant they invested their time to do so because of the benefits they saw arising from their use.

For some teachers their temporal priority is not their use of digital technologies, and this suggests it is a conscientious decision. Some staff do not have the time or inclination to properly put information into software/databases/programmes, but this is because they do not prioritise their use of digital technologies. They do not have the time because they believe work is being added to their day. They have got other temporal priorities. It would appear their use of digital technologies is a low or very low temporal priority. Their motivation for using digital technologies in their teaching is low for many reasons, one being they do not *have* to, they push digital technologies to the side, and secondly, they do not see the benefits for their classroom pedagogy. Another reason specified in many interviews is the frustration when technology fails to work, to connect or to function properly. This leads teachers to choose a 'safer bet' in future iterations and choose not to use digital technologies! Another aspect that shapes the choice of whether to invest one's time into learning a new piece of software or programmes is 'how long is it going to be around' (female teacher, 30–40).

For low users of digital technology, these teachers spend their *resourced time* in another way to enable *freed time*. Their digital technologies use is a low temporal priority because it is not important to them as an individual, so they deprioritise their use of digital technologies. For many teachers, their core business is planning, teaching and assessment. For example, an art teacher (aged 30–40) said he started with the topic, not with digital technologies: 'Basically when I look at teaching, I say, "What do I need to teach? How could I best do that?" I don't start with technology.'

Temporal priorities at Mountview

Practices negotiated through the use of personalised digital devices and online modes of interaction and communication point to the fluid intensifications, accelerations and compressions of time. The twenty-first-century teacher has ubiquitous online access and consequently can be logged in, and connected – a significant change from previous generations. While no allowances to the teachers'

labour day have been made to read and action emails, the eight-hour work day continues to be exceeded as teachers continually negotiate competing and increasing demands around planning, teaching and assessment. The research points to how school leaders in one school increased their capacity of *when* they could communicate and *how much* could be communicated, facilitating greater temporal communication. Yet, digital technologies gave them the capacity to assess their priorities, enabling temporal control in how they went about managing the school. Participants also acknowledged the expectations, take up, use of and enactment of digital technology usage, and focus of its success is temporally dependent on school leadership, initiative and focus (see Selwyn et al., 2018).

Time is negotiated in multiple ways in contemporary technology-infused schools (Duncheon & Tierney, 2013). The beliefs about digital technologies in how they save educators' time or waste their time suggest a causation about the value assigned to the worth of digital technologies in teaching. If one thinks digital technologies increase capacity to communicate or to be an effective teacher, then they assign value to the use of digital technologies, and an investment of time is made in learning *how* to use these digital technologies. Some teachers made time to focus on the effective utilisation of digital technologies in their teaching, and their ongoing, perpetuated use brought about higher levels of success, which in turn increased their preference in making time to continue to learn new things about technology. Building on Duncheon and Tierney's assertion that 'exercising temporal autonomy' (2013, p. 263) requires access to digital technologies and an awareness of how to use them, it appears the successful deployment is also necessary for ongoing utilisation.

The limitations of this study surround its lack of generalisability, but the intention of the article is to put forth a theoretical application. While the larger study included interviews with staff from three schools, this article in particular just focused on the staff at Mountview and that specific socio-political context. Further research could test this theory of *temporal autonomous spaces* (Clancy, 2014) and temporal (non)priorities in a broader context and with a wider range of teachers. Furthermore, additional research could explore how and when teachers move in and out of these temporal autonomous spaces and demonstrate varying levels of subjectivity, autonomy and control alongside their digital technology use. Future research could specifically focus on understandings and performances of time within school settings, similar to Hargreaves' (1990) work, but additionally consider the contemporary nature of digitally infused schooling.

In regard to the uptake and focus on using digital technologies in one's teaching practice, if it is sustained as a temporal priority through the investment of a teacher's time in learning how to use digital technologies, it is an embodiment of the notion of a *temporal autonomous space*. For those teachers who constantly use digital technologies, it becomes a sustained priority reiterated and reinforced because they make time to use them because they believe in the ongoing benefits (enabled *freed time*) it provides. This supports Kopcha's (2012) research findings whereby teachers' beliefs about the usefulness of proposed technologies and how difficult learning and using the technology appears to be will shape whether they choose to use the technology or not. For those whose sustained temporal priority is to use digital technologies, it appears their subjectivity reinforces their time investment in the use, deployment of digital technologies and the subsequent, needed development of knowledge and skills to know how to use them effectively. This aligns with research which suggested teachers use technology if they believe it will enhance their teaching (Vongkulluksn et al., 2018). For some teachers, their beliefs, practices and *temporal autonomous spaces* meant they did not either have or 'make' time to effectively learn how to use digital technologies in their teaching, positioning their use as a low temporal priority.

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