'Whether the elves are watching or not'. Listening to teachers' experiences regarding surveillance technologies in schools.

Martin Edward Edmonds

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By

Martin Edward Edmonds

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Author's Declaration

At no time during the registration for the degree of Doctor of Education has the author been registered for any other University award without prior agreement of the Doctoral College Quality Sub-Committee.

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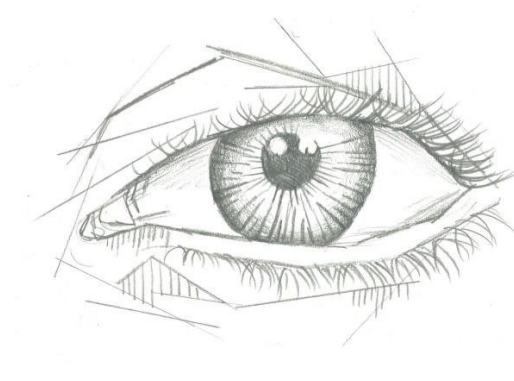
One of several sketches provided by a participant.

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Abstract

Surveillance technologies have become a normalised aspect of the workplace, and daily life, in England. This is particularly true in schools, where CCTV (Closed Circuit Television) is commonplace, and an audit culture well established. This study explores how teachers feel the atmosphere and culture of a school is influenced by technologized surveillance tools. Three interrelated questions were explored; what effect do surveillance technologies in schools have upon relationships between colleagues and students? What is lost by the application of such surveillance technologies in schools? How can Ivan Illich's work show us a way to respond?

To explore these questions, 13 teachers completed a research diary. Participants recorded their thoughts and experiences regarding technologized surveillance and 8 were then interviewed to explore these issues in greater depth. Analysis of the diaries and interviews demonstrated a high degree of unease, fear and stress amongst the participants generated by surveillance technologies, or by the perception of their use, in the workplace. The responses suggested that surveillance technologies in schools have a distinctly negative impact upon teachers. Five broad areas emerged; questions of privacy, the body and how people are made to feel physically, how we construct shared space and time, questions around a sense of paranoia, and examples of resistance. Clear boundaries between work and home, a feeling of professional autonomy, and a sense of security amongst the participants were all significantly weakened by the application of surveillance technologies in schools.

New definition of surveillance is offered, which focusses on the *potential* to collect, create and retain information on an individual or group, using technical or systematics means, and regarding which that individual or group has no clear right of access or challenge. It is recommended that the placement and use of surveillant technologies in schools be conducted with a greater emphasis on informed consent, proportionality, and a meaningful right of reply.

This study also contributes to Illich scholarship by applying his theoretical tools to a contemporary issue and through a wider engagement with his writings. A range of Illich's work was utilised including published books, conference speeches and interview transcripts. Several essays which have yet to receive formal publication were shared with me by Illich's colleagues. Future research could build upon this by applying Illich's theoretical tools to other contemporary questions and engaging with a wider range of his publications. Illich's work on silence needs to be explored in greater detail and could be used to develop responses to surveillance practices.

This study focussed on the experience of classroom teachers. Future research is needed to explore the experience of surveillance practices amongst students and senior management.

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<u>Introduction</u>

For Norwegian sociologist Nils Christie, schools are 'mirrors of society.' (Christie, 2020, p.107). Throughout this EdD, I have reflected upon my practice, how my work and approach has developed, and the changes I have experienced as a schoolteacher. For each assignment, I have written about an aspect of contemporary education and reflected on how it impacts upon the teacher's role. Having started this course with a clear sense of what I wished to research, (and how), I am surprised at the distinctly different route I have taken over the past few years. A brief reflection may be helpful here.

I trained as a teacher in 1998. The authors we were encouraged to read have remained with me and helped shape my conception of the role of the teacher and the nature of my work. Most prominent among those studied were Ivan Illich, Bertrand Russell and Paul Goodman; I have returned to their writings many times over the years.

It was not easy to secure my first appointment. At that time, it was common for a job interview to last an entire day due to the number of candidates attending. To gain a teaching post, I had to apply further afield and finally obtained a job 180 miles away from home. Such a situation is more unusual in today's profession, where it is not uncommon to interview a lone candidate for a job. I am aware of several recent posts in local schools which failed to attract a single applicant and were re-advertised on more than one occasion. Recruitment and retention of teachers is now a significant problem. Things have changed significantly over the past two decades.

In my first years of teaching, the end of July was always marked by the departure of colleagues reaching statutory retirement age. Many of these teachers had worked in the

same school for decades and taught the parents, and occasionally the grandparents, of current students. Leaving speeches were peppered with anecdotes about different Headteachers they had known at that school, the changes they had seen and the generations of specific families with whom they had worked. Having such experienced teachers provided a sense of continuity for staff, students and the wider community. Such individuals are now a rarity and I find it difficult to fully accept that I am already one of the longest-serving schoolteachers I know.

My first classroom had a small office attached. It was clear that these rooms were my responsibility and mine alone. From wall displays to the arrangement of desks, decisions regarding the classroom belonged solely to me as the teacher. I came into school during the Easter holiday to repaint the room, brought in potted plants and displayed posters I had chosen and purchased. Such a situation would now be unthinkable. In 2021, most schools have clear rules around the 'house style' of displays and the decoration, and seating arrangements are decided by school management.

In my first post, several colleagues had not completed a Bachelor's degree but held a Teaching Certificate (TC). A class teacher with a Master's degree was rare. Most of my colleagues now have a Master's, many have more than one, and I know several main-scale teachers who hold a doctorate. The profession is undoubtedly better qualified than at any previous point, yet autonomy and respect for professional judgement seem to be diminishing in inverse proportion.

The situation is curious, as I have also seen many improvements in pay and conditions. The 2003 National Agreement significantly reduced the administrative tasks teachers routinely completed, whilst also introducing dedicated time for planning, preparation and marking assessments (PPA time). Additionally, my personal experience is that student

behaviour has improved markedly over the past two decades.

I have witnessed many changes in the teaching profession over the past twenty years. Some have been very positive. Others less so. Yet recruitment, retention and workplace satisfaction remain significant and growing areas of concern. A plethora of initiatives have been put in place by successive governments, yet these remain stubbornly difficult issues.

Horst Rittel's concept of a 'wicked problem' (Churchman, 1967, p.141) may be appropriate here, as the difficulties faced are complex and have no single, or ultimate, answer. Additionally, any solutions we propose contain a significant moral element as they will directly impact on the lives, and life chances, of children. There are undoubtedly many factors contributing to these changes in the role of the teacher and the increasing difficulties in recruitment and retention. This study focusses on one of those factors. Over several post-graduate courses, I have explored distinct aspects of the teacher's role and the challenges faced. Each time, I have found myself returning to the writers who helped shape my understanding of that role. This study focusses on a single aspect of my professional life, and I have chosen one theorist to help me explore and analyse this issue; having first encountered his work as a PGCE student, I have turned back to Ivan Illich to help me think through these questions. In 1993 Illich published his study of Hugh of St Victor, stating that he wished 'to understand the symbolic effects of an age-specific technology on the habits of a particular historical time.' (Illich,1993i, p.95).

I have a similar aim.

This study

In my daily work, I have noticed an increasing prevalence of surveillance technologies in schools and the acceptance of approaches which would have been unthinkable in 1998. I well remember successful union action against unannounced lesson observations, yet only a few years later teachers routinely work in classrooms where CCTV cameras and microphones record every lesson. I cannot help but wonder whether these changes may have contributed to the difficulties in recruiting and retaining teachers. Surveillance impacts upon my professional role. It has a deep and profound influence on my personal perception, and upon others' perceptions, of me as a teacher. I have a sense that the changing nature of power between the role of the teacher and our employers may be one factor in the difficulties facing the profession. As Illich also pondered, how does 'the use of new techniques foster new ways of conceiving reality?' (Illich, 1993i, p.96).

There has been much research exploring the extent and nature of surveillance technologies in schools. The studies I have read have been completed by researchers visiting schools, rather than by teachers thinking about, and reflecting upon, their own workplaces and those of their colleagues. Whilst interesting and valuable, such studies have reported on the situation, describing and analysing what is happening and the approaches being used. Such analysis is vitally important, yet we need to move beyond it. As a schoolteacher, I am already aware of the situation; my principal concern is how to respond, adjust or live with these surveillant techniques. The studies I have read have offered helpful analysis of the situation but are of little practical assistance to the teacher working within such environments. The lack of research into how we can respond to surveillance technologies in schools is my starting point. By considering and developing

ways in which to respond, my hope is to make schools a better place to be, and the role of the teacher a more ethical, moral and purposeful activity. This study is written by a schoolteacher and focusses on the perspectives of schoolteachers.

Choosing to explore this topic gives rise to undertones of what Haynes and Macleod-Johnstone refer to as 'dangerous knowledge', as it may include subject matter that is 'sensitive or taboo' (Haynes & Macleod-Johnstone, 2017, p.3). I had expected to interview colleagues about a familiar aspect of school life and was surprised by the 'unexpected emotions' (ibid.) revealed during several of the interviews and, indeed, my own increasingly mixed feelings.

Reading Ivan Illich in 1998 helped me develop a sense of the role of the teacher which has informed my practice ever since. I have returned to Illich in the hope that his life and work may again help me to understand what is happening in teaching and how we can develop ways to live with these changes. I have used the phrase *live with* deliberately; throughout his life and work Illich explored ways in which we can live with difficulties, and to do so with dignity. It is simply not possible to continue working in a contemporary English school and to refuse to engage with the plethora of surveillance approaches prevalent there. Resistance is possible. Yet resistance is exhausting.

Such a focus on resistance also draws the teacher's time and energy away from our primary focus: the children in our care. Perhaps a re-appraisal of Illich's work can suggest ways in which the current situation can be responded to, or at least borne, with dignity. Engaging with Illich's work in this way invites 'us to rethink Illich and thereby ourselves and our lives.' (Mitcham, 2002, p.19). If schools are indeed a mirror of society, as Christie suggests, then an exploration of what is happening in our schools may have implications for what is happening in wider society.

Key Ideas:

To explore the issue of school surveillance, and teachers' responses to it, two key ideas must first be presented; what is meant by surveillance in this study and Illich's approach to responding to difficult, painful or challenging situations.

The first chapter of this study explores what is meant by surveillance, wider research on surveillance issues and specific questions around these practices in schools. I have read many studies about surveillance in schools. This work has described and reported the situation. However, from my position as an insider, such descriptions are of limited practical use; what is needed is to move from description toward ways of meaningfully responding to the situation.

As an insider, I see these elevated levels of surveillant practices daily, hear from colleagues in other settings, and am aware of the current, opaque, situation where people are afraid, fearful and unsure of how they can respond. The second chapter explores two aspects of Illich's work that I feel may be pertinent to these issues: his work on technology and tools, and his approach to difficulties and suffering. It is my hope that a close reading of Illich may help us to understand and respond more effectively. In my reading, Illich can show us ways to live with our situation and ourselves.

The structure of this thesis

For this study, I have undertaken a project to carefully listen to teachers regarding the issue of surveillance in schools. My central research question is: how do staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools? In order to explore this, I developed three subsidiary questions. Firstly, what effect do surveillance technologies in schools have upon relationships between colleagues and with students? The new surveillance approaches in a school impact on the relationships between staff, and with the students in their care, and affect the atmosphere and culture of the individual school. Therefore, my second subsidiary question was to enquire into: what is lost by the application of such surveillance technologies in schools? Thirdly, I explored how Ivan Illich's work might show us a way to respond.

This thesis records the experiences of schoolteachers regarding surveillance technologies in English schools, contextualises the situation within the existing literature regarding surveillance, and explores the questions raised with reference to the work of Ivan Illich. This project is one response to the issue of surveillance in schools. Considering school surveillance in the light of Illich's writings generates novel approaches to this issue and allows exploration of the situation from fresh perspectives.

In the first chapter, I explore what is meant by surveillance and present a definition to be used in this study. The second chapter is a review of the growing literature around surveillance studies and surveillance in schools. The third offers an overview of Illich's work and an explanation of how his ideas may be helpful here. The methodology used to seek the views of schoolteachers around surveillance in schools is set out in a fourth

chapter.   A presentation of my findings follows and explores the participants' comments through reference to Illich's work, whilst a final discussion section draws together questions around the extent of surveillance practices in schools, how they may be experienced by teachers and possible responses to them.   A seventh chapter outlines my conclusions and highlights unexpected elements of the data I collected and that, despite two decades of experience in schools, came as a surprise to me.

One enjoyable aspect of this thesis was the opportunity to contact several of Illich's friends and colleagues. Without exception, their responses were welcoming and helpful. An overview of these conversations is included as appendix V.

Chapter One: <u>What is meant by surveillance?</u>

'Whether in academic or popular discussions the term surveillance *is often used in a vague, imprecise and, seemingly, self-evident fashion.'* (Marx, 2016, p.13)

Surveillance technologies include CCTV in streets and workplaces, number-plate recognition cameras tracking the movement of cars, online banking and card payments tracking spending in ways which were impossible with cash transactions, and the plethora of tracking apps running from computers and smartphones, both at work and at home. Few of us are clear about the extent, nature and legal status of technologies which are now part of everyday life. Surveillance is often depicted as a negative phenomenon and inextricably linked to law enforcement. Yet surveillance,whether in traditional or more recent forms, has always existed and is of great importance in maintaining safety, security and efficiency. As Emmeline Taylor has noted, surveillance is 'complex and messy.' (Taylor, 2013, p.5). Whilst some may be uncomfortable with specific surveillance practices, few would advocate the removal of all checks and monitoring in society. Within a school context, most would acknowledge the necessity of keeping a watchful eye on children in case of danger, and of monitoring the work of pupils, (and staff) to check that appropriate levels of progress are being achieved.

<u>Defining surveillance</u>

For Roger Clarke, a key writer in the field of surveillance studies, surveillance can be defined as 'the systematic investigation or monitoring of the actions or communications of one or more persons.' (Clarke, 1994, p.122).   Clarke identifies three distinct categories

of surveillance: Personal Surveillance, Location Surveillance and Mass Surveillance (Clarke, 2015, p.127). The first focusses on the monitoring of an individual or small group for a specific reason, the second identifies the, (probably entirely legitimate), technological monitoring of specific sensitive locations (e.g., the control room of a power station), but the third describes a significant break from the monitoring of specific individuals or locations and is 'not justifiable in any targeted sense, but only on the vague basis that more data is 'a good thing'.' (ibid.).

David Lyon, another pivotal figure in the field, insists that surveillance is never neutral (Lyon, 2015, p.121), is 'not beyond ethics' and should always 'be contested.' (ibid.). Lyon defines surveillance as 'the operations and experiences of gathering and analysing personal data for influence, entitlement and management' (Lyon, 2018, p.6) and asserts that it should always be a means rather than an end in itself.

Gary Marx has spent more than four decades studying surveillance and is a key figure in this area. He distinguishes two forms: *traditional surveillance* and *new surveillance*. Traditional surveillance refers to the observation of others using our senses unaided by technological tools, whilst the *new surveillance* he defines as 'scrutiny of individuals, groups, or contexts through the use of technical means to extract or create information.' (Marx, 2016, p.20). Such an approach was only able to come into existence due to recent technological developments (Marx, 2016, p.17), and therefore *new surveillance* is a unique feature of the modern world and could not have existed in pre-digital societies. In a school context, *traditional* surveillance would refer to the teacher watching the class, (or the Headteacher observing the staff), listening for the sound of talking, or checking schoolbooks to monitor the quantity and quality of work completed. Marx's *new surveillance* would represent CCTV in the corridors, children's fingerprints being

scanned when they use the library, and continuous monitoring of all on-line activity within school.

As can be seen, Marx's definition explicitly links new surveillance approaches to technological developments. The contrasting of traditional and new surveillance tools is rooted in a comparison between inductive and deductive approaches toward inquiry (Marx, 2016, p.17). Using a law enforcement example, in a pre-digital age a person of interest may be identified, and could then be surveilled, either through direct observation or the collection of data about their movements and activities. Whereas, under *new surveillance* approaches, digital databases enable every visitor to a location to be recorded by CCTV, the location tracking of everyone carrying a smartphone, and the recording and cross-referencing of social interactions made using websites. Such technology enables law enforcement agencies to act *deductively* and allow vast databases to identify potential suspects based on algorithmically defined patterns of behaviour. In a school context, traditional surveillance, or observation of a student's progress, would have been used *inductively* to assess their academic potential and set appropriate targets. These would be specific to them as individuals and based on observations of their engagement and work. However, under *new* surveillance approaches, a child's progress data is now created deductively, based upon national data sets, and does not reflect the individual child's circumstances. For example, a child may have missed much of Year 6 due to an illness or injury. Their test score for that year might not present an accurate picture of their academic ability; however, that score will still be used to generate their minimum expected grades (MEGs) for the next five years, and it is not possible to include contextual information. The summer 2020 A level results debacle illustrates this point well; grades generated by an algorithm, not directly using teacher grades, were felt by many to produce

inaccurate results. There was an element of irony in the high level of media coverage this garnered, as algorithms have been used by exam boards for many years with little interest being shown by reporters, (or indeed, many teachers).

It should be noted that each of these definitions contain inherent questions regarding unequal power relationships around surveillance. Technologized surveillance has become a dominant organizing principle of contemporary society (Lyon 2007). At its core, surveillance is 'about the structuring of power relations through human, technical, or hybrid control mechanisms.' (Monahan & Torres, 2009, p.2); it is a field of study which is evolving in tandem with the developing technologies it seeks to describe and explain. Marx reminds us that surveillance is not solely an activity of the observer but 'is also experienced by agents, subjects and audiences who define, judge, and have feelings about being watched or a watcher.' (Marx, 2016, p.173). This feeling of being watched can be experienced without an actual observer needing to exist; Bentham's Panopticon was clearly predicated upon this idea, yet I am thinking of a more recent example. Last December, a student told me about the Christmas decorations he had helped put up at home: he was uncomfortable about a new item his mother had purchased - a *Santa-Cam*.

This replica CCTV camera had a blinking light yet had no viewing or recording capability. The item could be fixed to a ceiling and, according to the packaging, 'reports bad behaviour to Santa;' it also depicted a smiling elf saying *'Hey! I'm watching you*.' The student was a teenager and his friends tried to ascertain why he was so uncomfortable when it clearly was not a real camera, the elves were '*not really watching*,' and there was no possibility of it being used as a surveillance tool. It emerged that he was deeply uncertain about the way the product presented the character of Santa Claus to his younger brother. For me, this example crystallises Marx's contrasting of *traditional* with *new*

surveillance; the conventional figure of Santa Claus is that of a benevolent character using *traditional* surveillance approaches, (his unaided senses), to be aware of the behaviour of children and reward them on Christmas Day. The *Santa-Cam* presents Father Christmas, within the context of Marx's *new* surveillance, as an individual using technical approaches to collect information. In practical terms there is surely little difference; whether traditional or new, Father Christmas knows whether each child has been bad or good. Yet the boy in my class instinctively understood that one version was a comforting and reassuring character, whilst the other left him with a gnawing sense of uncertainty. It is these deep-seated emotional responses to technological surveillance tools I seek to explore in this study.

Santa Claus is Watching You:

The *Santa Cam* is promoted with the line that *'your children are bound to behave perfectly under the watchful eyes of the elves!'*

Conclusion

In this thesis I define surveillance as the situation where an individual or organisation is known to possess the *potential* to collect, create and retain information on an individual or group using technical or systematic means and regarding which that individual or group has no clear right of access or challenge.

This definition would include a spy observing a target using their eyes and recording their findings, yet would exclude the *traditional* watching of a schoolteacher, Lolly-Pop Lady/Man (or even Father Christmas and his elves), who observe, but do not collect and retain, such observations systematically. The definition also excludes monitoring routines in the workplace of which the employee is aware and can meaningfully challenge. The explicit inclusion of the *potential* to surveil is important. As Bentham and Foucault knew well, the watcher does not need to continually watch; to be effective, they merely need to be *potentially* watching. Previous definitions given above focus on the *activity* of surveillance practices; my interest is in the *experience* of being, at least potentially, under surveillance and without recourse to meaningfully challenge these practices. If there is a CCTV camera trained upon you, it makes little practical difference if the footage is being used, stored unwatched or even whether the camera is working or simply an empty box like the Santa-Cam. *Potential* surveillance is likely to be experienced in the same way as *actual* surveillance and should be reflected in any working definition. Regarding how we emotionally experience the possibility of surveillance, perhaps the boy in my class was correct and *'it doesn't matter whether the elves are really watching or not.'*

In this first chapter I have presented an exploration of what is meant by the term 'surveillance' and examined differing attempts to define this term. Rather than use a pre-existing definition for surveillance in this thesis, I have presented my own conception of

the term. I contend that this definition is novel and useful in exploring the nature and extent of surveillance practices in schools and feel it is entirely appropriate that this new definition was prompted by a discussion with a child in my class.

Chapter Two: Literature Review:
Surveillance Studies / Surveillance Schools
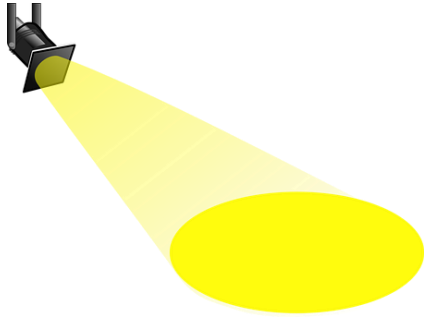
> *'The positive aspects of surveillance such as protection, guidance, documentation, and entertainment speak loudly for themselves. The less visible negative aspects, such as domination, repression, intimidation, and wrongful exclusion speak more softly, if at all.'* (Marx, 2016, p.325)

A surveillance society

In her 2002 Reith lecture, the philosopher Onora O'Neill explored questions of trust, and voiced her concern that we had built a 'culture of suspicion.' (O'Neill, 2002, p.18). Gary Marx has stated that developments in technology have led to our becoming a 'surveillance society,' (Marx, 2016, p.6). Whether we accept these judgement remains an open question, but it is useful to look briefly at the extent of surveillance technologies routinely encountered, their rate of expansion and possible impacts upon society.

It was 1960 in London when a closed-circuit television camera (CCTV) was first used to help manage public safety, (Norris, McCahill & Wood, 2004), whilst the first city to introduce CCTV as part of a crime reduction plan was Olean, New York in September 1968, (Greston 2010). Due to security and commercial sensitivities, clear figures regarding the current number of CCTV cameras are difficult to obtain. A 2009 review

from lobby group Big Brother Watch, based on Freedom of Information requests, suggested there were then at least 59,753 CCTV cameras operating in the UK, (Big Brother Watch 2009). However, a 2013 study from the British Security Industry Association accepted the Big Brother Watch figures but noted this number only included cameras operated by local authorities rather than those run by private companies and stated that there were probably between 4.1 and 5.9 million CCTV cameras in the UK at that time (BSIA, 2013, p.5). I have been unable to find any reliable information on current levels of CCTV surveillance in the UK. However, it may be the case that the debate around CCTV is of decreasing relevance as we move toward ever newer surveillant technologies and the implications around their increasingly ubiquitous presence. Such surveillance tools may become more important not because they involve modern technologies per se but because they have become so embedded in our daily lives; credit and debit cards are not new, yet their use for increasingly small purchases has resulted in them becoming an essential element of daily life for many – alongside the tracking of location and spending patterns made possible by such tools.

A smartphone could also be viewed as a surveillance device as it allows the owner's movements, conversations, browsing choices and spending to be tracked. Recent research reinforces the concern that this can create tensions around questions of civil liberties, (Cohen, Gostin & Weitzner,2020) and indicates counter-productive engagement with such devices is both more prevalent amongst the young and increasing sharply; a study involving 4,150 UK citizens concluded that 15% of smartphone owners aged 18 - 24 wake during the night to check their 'phone, (Deloitte UK 2020). The study suggested the proportion of young workers using their smartphone very often for work purposes, outside of working hours, almost doubled between 2018 and 2019 with 16% of workers

aged 18-24 saying they check work emails on their smartphone every hour, compared to 5 % of workers aged 55-75 (ibid.).

Such technologies do not solely affect the physical world we inhabit; they fundamentally influence how individuals view and engage with the external world. Evidence suggests that in the wake of the Snowden revelations of internet surveillance there was a significant increase in self-censorship online (Lyon 2015). For Lyon, current levels of technological surveillance are 'unprecedented,' (Lyon, 2018, p.6). However, the question remains open as to whether this is an unprecedented change for good or ill. Nonetheless, it is certainly clear that with the extensive use of technology, and almost panoptic level of surveillance, embedded now as an 'integral part of everyday life,' (Nemorin, 2017, p.239), the:

> '...entangled dilemmas of knowledge, authority, and power are no longer confined to workplaces as they were in the 1980s. Now their roots run deeper through the necessities of daily life, mediating nearly every form of social participation.' (Zuboff, 2019i, p.4).

The growth of online shopping has significant implications in the surveillance debate as a key difference between traditional and online retail 'is the collection, retention, distribution, merging and use of personal information,' (Margulis & Marx, 2012, p.351). Researchers have long expressed concern at the possible slide from such elevated levels of commercial surveillance toward political surveillance (Zuboff 2015, Lyon 2018).

One noteworthy issue is the extent to which people comply with such prominent levels of surveillance and accept the many requests for personal information, (Marx, 2003, p.370). A lack of full awareness and understanding around the nature and extent of current surveillance practices (ibid.) may help to explain such elevated levels of acceptance, but I

do not believe this can fully account for the situation; I suggest it is their gradually developing ubiquity across all aspects of life that has led to the normalisation of such intrusive practices and habituation to their surveillant elements. The strong utility value and significant social aspects of these technologies have helped lead to such ubiquity; Google 'set out to index all human knowledge (and become) its source and arbiter,' Facebook 'set out to map the connections between people (and become) the platform for those connections' (Bridle, 2019, p.39) whilst YouTube's success is clearly a result of its recommendation algorithms that aim, with disarming simplicity, to identify 'what viewers like,' (ibid, p.217).

The expanding nature of surveillance has led to a new field of enquiry: surveillance studies.

Surveillance Studies

Surveillance studies is a relatively new and fast developing field. As such, many areas are contested, and consensus has yet to develop. Marx has warned that 'Surveillance studies are fragmented, and scholars often disagree.' (Marx, 2016, p.6). However, some assertions can be made regarding surveillance studies; its focus is on both those conducting surveillance, and the developing technologies and practices they employ, and the effect upon those who are being surveilled.

Marx identifies three frequent responses to surveillance; i) the view that surveillance has always existed and the current situation is different only in degree, ii) that we are living in a time when the intrusion of surveillance is truly revolutionary and iii) that whilst such developments are indeed unprecedented and revolutionary, they reflect societal changes and

will gradually be ameliorated through alterations to customs and legal status to ensure the protection of privacy and liberties, (Marx, 2002, pp. 9-10).

Bentham's 18th century design for a prison, where every inmate was under constant (potential) surveillance by just one guard, has become a key method of conceptualising surveillance. Bentham's Panopticon, (meaning 'all-seeing') influenced Orwell's depiction of a dystopian future in his novel *1984* (1949) where every room held equipment ensuring 'every sound you made was overheard, and, except in darkness, every movement scrutinised,' (Orwell, 1989, pp. 4-5). Foucault later used the Panopticon as a powerful metaphor for what he termed the 'disciplinary society', (Foucault 1991) and his theoretical tools have remained the dominant approach in surveillance studies. Foucault noted that the principal effect of the Panopticon was to 'induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power' (Foucault, 1991, p.201); the prisoner, in effect, becomes their own goaler and awareness of potential surveillance means they discipline themselves.

A central writer in the field is David Lyon; his work has helped to shape and structure the field of surveillance studies itself. In 2012, Lyon collaborated with Polish philosopher Zygmunt Bauman to apply the latter's conception of liquid modernity to questions raised by surveillance studies. Their thesis was that modern surveillance structures are more appropriately described and conceptualised as liquid rather than as having any formal structure. They warned that Foucault's Panopticon is 'just one model of surveillance' (Bauman & Lyon, 2013, p.4) and that focussing on 'tools and tyrants' (ibid. p.8) 'ignores the spirit that animates surveillance, the ideologies that drive it forward, the events that give it it's chance and the ordinary people who comply with it (or) question it,' (ibid). This suggests that the growth and development of surveillance technologies may be seen

as a result of material, rather than solely ideological, factors.

Whilst there is a large and expanding literature within this new field, clear definitions, approaches and parameters are still developing. Marx has expressed concern at the disparate examples of theory and research being employed which often lack 'integration (and even awareness) among literatures. They do not adequately build on each other.' (Marx, 2016, p.14). Zuboff has recently warned about the consequences of continuing to conceptualise technologized surveillance in traditional ways as 'the equation of its new power with totalitarianism and the Orwellian trope impedes our understanding as well as our ability to resist, neutralize, and ultimately vanquish its potency'. (Zuboff, 2019ii, p.19).

Conceptualising Surveillance Studies

The level of surveillance experienced in Britain today is unprecedented and, broadly speaking, accepted by the public. For Bauman, this can result in people being 'so groomed to the role of self-watchers as to render redundant the watchtowers in the Bentham / Foucault scheme' (Bauman& Lyon, 2013, p.59) echoing Foucault's own observations that in the Panopticon, individuals behave as though they are being watched irregardless of whether they are actually under surveillance.

For Clarke, recent decades have seen a move away from more familiar and visible forms of surveillance and the:

> '. . .emergence and refinement of a new form of surveillance, no longer of the real person, but of the person's data-shadow, or digital persona. Dataveillance is the systematic use of personal data systems in the investigation or monitoring of the

actions or communications of one or more persons. It may be 'personal dataveillance', where a specific individual has been previously identified as being of interest. Alternatively, it may be 'mass dataveillance', where a group or large population is monitored, in order to detect individuals of interest, and / or to deter people from stepping out of line.' (Clarke, 1994, p.123)

The extent to which individuals comply and support their own surveillance / dataveillance by recording and reporting their daily activities on social media should also be acknowledged. For Clarke, 'dataveillance is the systematic use of personal data systems in the investigation or monitoring of the actions or communications of one or more persons.' (Clarke, 1991, p.498). Whilst surveillance, to a greater or lesser extent, is targeted toward individuals or groups, dataveillance uses the vast data bases available (often termed *big data*) to algorithmically sort populations within that data base. Marx has termed the situation where someone can be tracked by authorities simply due to their possession of certain characteristics, used by the software to group people, as 'categorical suspicion.' (Marx 1989). It was interesting to note that at the start of the covid-19 pandemic, Google began to publicly track the movement of individuals, and to publish details, using location data gathered by apps on one of the company's mobile services; it is unclear how many users of these tools had agreed to being tracked in this way or were even aware that their device was tracking them, (Kelion 2020). Related questions arose when governments of several countries tried to create, with varying degrees of success, track and trace apps to help monitor and control the spread of the pandemic. As Kelion wryly observed, the 'data may prove startling to people who are unaware of just how much information Google collects.' (ibid).

The extent and depth of the dataveillance of children, and staff, in our schools may be similarly startling to some people. Information on attendance, engagement, attainment,

behaviour and even eating habits are now routinely recorded, stored and utilised in schools to create a 'data-double' for everyone on roll. However, it may not be the surveillant technologies themselves which should be the issue, but the ways, and extent, to which they are being deployed.

Reconceptualising people as data-doubles and data-subjects

The term *digital person* was coined by Clarke in 1992 and aimed to provide 'an unambiguous way of referring to data collections about individuals that are sufficiently detailed to be used as a basis for decision making in lieu of dealing with the individual themselves', (Clarke, 2014, p. 183). Bulk Personal Datasets (BPD) are large collections of data that record the details of all members of a population: e.g., information from the Electoral Roll, the DVLA (Driver Vehicle Licensing Authority) and HMRC (Her Majesty's Revenue and Customs). Such bulk data sets are also used in schools; both internally, using software packages to track a student population and nationally, through reference to national data bases of school-age children. Exam results achieved by previous student cohorts were used to construct the algorithm designed to avoid grade inflation which led to the summer 2020 examination debacle.

Through this process, individuals are remade as 'data subjects' and such mass collection and surveillance allow data to be used 'in new ways that disconnect the data from the individual' (Lyon, 2015, p.96), however, 'the profiles created from such data gathering are often misleading, irrelevant and damaging to specific individuals or groups.' (ibid). Concerns arise when access to higher level courses and references for jobs may depend on information stored in such BPDs; as Lyon notes, 'the ways in which people are 'made

up' by the data in these impersonal systems are far from incidental in the real flesh-and-blood lives of those people.' (Lyon, 2015, p.96).

Articles 12 and 13 of EU General Data Protection Regulation 2018 state clearly that we have the 'right to an explanation' (EU 2016) if affected by algorithms. However, it is interesting to note that individuals are not referred to here as citizens, people or children but as 'data-subjects'. The EU define a 'data subject' as 'any person whose data is being collected, held or processed' (EUGDPR 2018) but it is important to notice that it is not the individual that is being tracked here but their data. As Greenfield observes, this is 'thoroughly consonant with the neoliberal practice of governmentality, which tends to individualize hazards and recast them as issues of personal responsibility or moral failure, rather than structural or systemic issues.' (Greenfield, 2018, p.251). The 2020 exam season provided an illustration of several of these issues within a school context; grades were generated using an algorithm rather than in relation to specific marks allocated to individual students by the teachers. There was much criticism that students, (whose teacher-predicted grades had been significantly downgraded by the algorithm), had no effective right of reply, or obvious right of explanation.   Appeals to exam boards can only be made by schools, and such an appeal to an exam board is of doubtful value in seeking an explanation when the award decision was not made by the board but by an algorithm at Ofqual.

These algorithms use big data bases, and such data bases are frequently supplied with information by individuals agreeing to share their data, (Greenfield 2018, Bridle 2019). Whether through social media, creating an account with YouTube or Amazon to receive targeted recommendations, or simply taking an online quiz, the sharing of data becomes so normalised that 'it is the withholding of data that is abnormalised.' (Southerton &

Taylor, 2020, p.1). Reflecting on American schools, Rosen and Santesso suggest children are increasingly seen as customers within the school system and one of the products available for their consumption is safety; as such, they wonder whether privacy may be simply 'one more possession that students may be expected to surrender in return for a desired product.' (Rosen & Santesso, 2018, p.502). Writing about computers and moral responsibility, Ladd commented: 'The concept of rights begins to lose its bite when we freely abandon the claim to privacy without second thought whenever it is personally convenient for us to do so.' (Ladd, 1991, p.665).

Positive aspects of surveillance

Most research in the field focusses on negative aspects of surveillance. However, surveillance clearly has a role in both crime reduction and detection. Awareness amongst potential offenders of possible observation might be an impact of CCTV (Gill & Spriggs 2005), and may lead to fewer instances of public disorder, (Ratcliffe, Taniguchi, & Taylor 2009). Cameras can also provide important visual evidence, and analysis suggests they are linked to significantly increased rates of detection for all crimes except weapons possession and fraud, (Ashby 2017). Meta-analysis suggests CCTV cameras have created a modest but significant decrease in crime, particularly around vehicle and property crime (Welsh & Farrington 2009, Piza 2018, Piza et al 2019). Wills et al interviewed 899 individuals who had been detained by the police in Australia and recorded that most police detainees regarded CCTV as an effective crime prevention tool, (Willis et al, 2017, p.10).

Surveillance can also be conceptualised as a form of care (Rooney 2010) and a response to

specific risks, notably the issue of school shootings in the US, (Casella, 2010, p.73).

Barron conducted an ethnographic study with sixty children and noted that they were not simply objects of these technologies but 'appropriate, reproduce, and reinvent cultural and societal information.' (Barron,2014, p.412).

A third key aspect is that many surveillance technologies underpin popular tools; products recommended by Amazon, suggested viewing by YouTube, and social media all require the use of these technologies, (Bridle 2019).   Such approaches involve an element of gamification, (where fun elements are deliberately included to make the experience resemble a pleasurable game), and may help to explain the widespread consent to, and engagement with, such surveillant technologies as smartphones and social media. Perhaps we 'just consent to the loss of privacy as a reasonable price' (Bauman & Lyon, 2013, p.21) to engage with these new products.

However, the keynote of surveillance studies is a cautious response to these emerging technologies, and this developing field:

> '...serves as a reminder that while they (...) are watching us, we are watching them.' (Marx, 2016, p.320)

Three key themes in surveillance studies

From my reading of the literature, I identified three broad areas of enquiry that move discussion beyond journalistic reporting of new surveillance techniques and assessments of their capabilities and growth. These three areas are relevant to the field of education and to my project. They are the question of informed consent, issues of proportionality

in the use of these tools and discussion around a meaningful right of reply regarding the data collected and the judgements made using it.

Informed Consent

Marx explicitly links Orwell and questions of informed consent by stating that language may be seen as a 'soft form of control' when used to create 'disingenuous communication that seeks to make it appear that individuals are voluntarily providing their information.' (Marx, 2016, p.124). Marx lists many examples, a representative case being a webpage statement reading 'By using our site, you consent to our privacy policy.' (ibid. p.125). We should question whether consent to the privacy policy is meaningful when the only other choice available is not to use the website at all. Within school situations, students and staff are required to consent to policies around the appropriate usage of technology; it is often unclear what possible alternatives could exist if an individual did not agree with the terms of such a policy yet intended to remain at the school. There is a question here as to whether such policies and practices can be recording meaningfully informed consent.

Proportionality

Proportionality is the principle that an action undertaken should not be more severe than necessary to accomplish the stated aims. I feel this single word is a useful way to describe many questions; debate around the clarity of goals, assumptions made in setting surveillance parameters, potential reputational harm and questions of fairness can all be seen to be problems of proportionality.

For Marx, a central question is whether '...means and ends stand in an appropriate balance?'

(Marx, 2016, p.280). The prominent levels of pervasive surveillance noted earlier may give rise to unpleasant feelings and suspicions. However, as Clarke noted 'few would contest that people reasonably suspected of terrorism and organized violent crime are candidates for surveillance.' (Clarke, 1991, p.496). Installation of CCTV to film the school safe or valuable equipment may be seen as proportionate, whilst placing cameras throughout the building, regardless of any reasonable suspicion, may be open to question.

Right of reply

A meaningful right of reply necessitates a legally enforceable right to 'redress and sanctions' (Marx, 2016, p.282); whether incorrect decisions can be identified, corrected and the surveillance records erased, remain key questions and have everyday relevance. When I started teaching, the school had CCTV cameras; images were recorded onto video cassette and held in the caretaker's office for a week before tapes were reused. It was clear where the data was held, who had access and the process by which recordings could potentially be erased. When CCTV cameras are watched by third party organisations, and recordings held in cloud storage, it becomes unclear precisely where the material is located, who specifically has access and how it could be deleted. We are increasingly aware that the answer to this question is that the information is retained in many separate locations, is accessible by many individuals and organisations, and can never be effectively deleted.

A clearer policy focus around consent, proportionality and a meaningful right of response, would address many concerns about these tools and allow their more positive potentialities to be explored.

'Surveillance Schools'

'In a sense, to be a child is to be under surveillance.' (Steeves & Jones, 2010, p.187)

'*Attention to childhood offers a unique transom into how we learn what it means to be watched and to watch and to how surveillance changes as roles and related rights and responsibilities shift over time*.' (Marx & Steeves, 2010, p.192).

Foucault's extensive studies proposed that since the seventeenth century, economies of power have come to be focussed upon using surveillant, disciplinary and regularizing techniques to render individual human beings into 'docile bodies.' (Foucault, 1997, p.249). Starting from a Foucauldian perspective, Gilles Deleuze conceived of society moving from one characterised by a culture of discipline toward a society characterised by control, (Deleuze 1992). Schools can be seen to have increasingly adopted approaches more expected in penal institutions, including the routine requirement for taking children's fingerprints to control access to canteen or library services, increasingly strict uniform requirements and policies around acceptable hair length. However, as Bourdieu observed when writing about Goffman's study of prisons, asylums and convents, 'institutions which differ greatly in their declared purposes show striking similarities in their actual functioning.' (Bourdieu, 1983, p.112). The combination of new technological tools with existing policy approaches may contribute to the generation of a harsher disciplinary environment as '. . . the usage of CCTVs during disciplinary processes is entwined with zero-tolerance policies and intensifies them.' (Perry-Hazan & Birnhack, 2016, p. 9).

Nils Christie was a friend and colleague of Illich. In 1971 he wrote that the 'organization of schools is a reflection of the surrounding society.' (Christie, 2020, p. 100). As surveillance tools and approaches have become more embedded in our society, we can see that they have become correspondingly more prevalent in our schools. In the UK, state schools are now the primary locus of continual and pervasive surveillance. The term 'surveillance schools' was introduced by Emmeline Taylor (2013) to describe and explore this situation. Specific examples include the widespread use of CCTV, including in sensitive areas like student toilets (Taylor, 2010, p.383, Big Brother Watch 2012), extensive use of fingerprinting to create biometric identification, (Perry-Hazan & Birnhack 2016), tracking children's use of school canteens and libraries (Big Brother Watch 2014), and the routine use of Classroom Management Software to monitor pupil internet activity on a school, or personal, device, (Big Brother Watch 2016, Hope 2018). The collection of information about attendance, homework submission rates and attainment data make comparison between individual students, individual classes, (and their teachers), and individual schools possible and enable League Tables to be generated. The introduction of this system by government was termed 'governing by numbers' by Ozga, who viewed data collection for audit and inspection purposes as a tool by which 'surveillance can be exercised.' (Ozga, 2008, p.264). Acik et al (2018) explore the issue of school surveillance within the context of anti-terror laws and the UK government's PREVENT strategy. However, I am unconvinced that this policy is a key factor around surveillance technologies in individual schools, as there is significant evidence of such approaches being used in schools before the introduction of this specific policy. I believe that PREVENT is another symptom of O'Neill's 'culture of suspicion' (O'Neill, 2002, p.18) rather than its cause.

The complex nature of modern schooling was outlined by Emmeline Taylor in a key 2013 study where she coined the term 'surveillance schools' to describe institutions 'characterised by an array of routine practices that identify, verify, categorise and track pupils.' (Taylor, 2013, p.2). Using a Foucauldian analysis, Taylor researched the extent and impacts of the growing range of surveillance practices in UK schools, concluding that there 'is a pressing need to rethink school discipline and the appropriateness of embedding surveillance technologies into pedagogical apparatus,' (Taylor, 2013, p.108) whilst noting that 'schools as microcosms of society can permit us a prophetic glimpse into the future, and as such it is a crucial time for scholars to study the phenomena of the 'Surveillance School.'' (Taylor, 2013, pp.112-113). Taylor explored the legal requirements surrounding use of CCTV in schools, noted that it was 'common for schools to be in contravention' of the legislation, (Taylor, 2011, p.11) and concluded that 'the regulation of CCTV and surveillance has been found desperately wanting.' (ibid. p.12).

Returning to this theme in 2017, Taylor completed a content analysis of Australian newspaper reports relating to surveillance technologies in schools and concluded that 'Globally, school children are fast emerging as one of the most heavily surveilled non-criminal populations, but yet there has been remarkably little empirical research into this phenomenon.' (Taylor, 2017, p.424).

For Onora O'Neill trust, and sometimes the lack of it, underpins society as a whole and goes to the heart of how we engage with others (O'Neill 2002). Christie (2020) held that society is reflected in schools and, writing about student voice, Czerniawski holds that honesty and transparency are 'the bedrock of any authentic pupil voice interaction.' (Czerniawski, 2012, p.131). Whilst acknowledging that trust is a complex issue, Czerniawski and Garlick, state that schools ought to be places where 'trust and respect

should form the cornerstones of all teacher/student interactions.'(Czerniawski & Garlick, 2011, p.290), concluding that:

> 'Without this, any claim that formal education is in some way, a preparation, enactment and rehearsal for democratic citizenship is disingenuous.' (ibid.)

The extent of surveillance practices in UK schools raise fundamental questions around the trust and respect being shown toward students and staff.

The extent of surveillance in schools

As early as 2007, Warnick raised concerns around the 'growing presence' of surveillance cameras in schools (Warnick, 2007, p.317) and identified five main principles; i) use of surveillance technologies should be minimised, ii) the use, and conditions of use, of such technologies should be open to continual public scrutiny and debate, iii) empowerment of the general public to be able to use and benefit from these technologies, iv) transparency, so that the public are aware of the location of CCTV and the ways in which the data obtained may be used and v) erasure – that records should be deleted as soon as possible as the 'longer recordings are archived, the more likely they are to be abused.' (Warnick, 2007, p.340). It is interesting to note than more than a decade later these remain key issues and unanswered questions.

Such changes in how schools operate began to be described as a 'surveillance curriculum', (Monahan 2006, Hope 2010). A foundational contribution to the field was the 2010 collection of essays edited by Monahan and Torres, (Monahan & Torres 2010). These focussed on surveillance in schools and explored issues of control, accountability regimes and everyday resistance. Monahan and Torres warned that surveillance in schools is 'not simply about monitoring or tracking' but is rather 'about the structuring of power relations through human, technical or hybrid control mechanisms.' (ibid. p.2).

Page conceptualised surveillance in schools as three overlapping areas in which the work of a teacher was observed; he referred to these as Vertical, Horizontal and Intrapersonal types of surveillance. Vertical refers to the formal observations of Ofsted, inspectors and CCTV, horizontal surveillance denotes the informal observations of colleagues when teaching or using the staffroom, and intrapersonal surveillance is the self-monitoring of individuals as they reflect on practice (Page, 2017, p.995). Whilst these differing types of observation undoubtedly impact on the behaviour of individual teachers, I am unsure whether this model is helpful in developing our understanding of surveillance in schools as I do not feel many would regard Page's horizontal and intrapersonal modes as being surveillance in a meaningful sense.

An ethnographic study of three socially diverse schools in Australia across a three-year period concluded that surveillance practices have 'gained momentum, spreading rapidly across and beyond the enclosures of the school landscapes and, at times, working invisibly to amass vast amounts of student and teacher data for various purposes.' (Nemorin, 2017, p.251). Nemorin's study identified staff members who were apparently unaware of the CCTV cameras in their own classrooms and were surprised to be informed of this by the researchers (ibid. p.243); these findings were explored using the concept

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of panoptic structures and Nemorin concluded that:

> 'in order to do the necessary work to attain a comprehensive understanding of the nuances of surveillance in school as a reflection of and connected to a larger society, educational research ought to be paying more attention to Surveillance Studies, and, conversely, Surveillance Studies ought to be paying more attention to educational research.' (Nemorin, 2017, pp.251-252).

The expanding (surveillance) school

Schools have long focussed on forging links with the local community and extending their role beyond their campuses. However, recent decades have seen an increasing encroachment by schools into the lives of pupils beyond the school gate.   For Haynes, 'school pedagogy has reached right inside the home through parenting classes and home-school contracts.' (Haynes, 2013, pp.309-310). There are indications that *surveillance schools* too are expanding their reach. Some English schools are increasingly seeking to monitor and control pupil behaviour outside of school time and beyond the physical boundaries of the school building.   Kulz observed senior staffpatrolling local streets outside of school hours to ensure pupils were not visiting fast food outlets or wearing hoodies, (Kulz, 2017, p.48), whilst some school policies explicitly state that 'Homework takes priority over any hobbies you may have,' (Great Yarmouth Academy, 2017, p.10). Schools are increasingly encroaching upon those liminal spaces where children are neither at home nor at school.

One California School District paid a private contractor $40,500 to monitor the social media usage of 14,000 middle and high school students, (Shade & Singh 2016) and Nemorin (2017) observed a school where teachers could install software enabling them to monitor pupils' online activity both at school and at home 'without their knowledge'

(Nemorin, 2017, p.244), whilst Page (2017) identified three distinct levels of surveillance of schoolteachers and stated that '. . . the risk anxiety within schools has proliferated exponentially.' (Page, 2017, p.1003). Such surveillant practices are often coupled with increasingly strict behaviour policies in schools. The enforced silence of children moving between classrooms, and through corridors, made the national news (BBC News 2018) but was later introduced in many academy schools. The combination of surveillant and draconian approaches has significantly altered the culture of many schools and impacted on the working environment of both children and staff.

Potential impacts of '*surveillance schools*'

A practical problem posed by surveillance is that of how such approaches may alter a child's experience of trust, risk and personal responsibility. Without surveillance tools a child can experience trust and, hopefully, live up to that trust; however, with surveillance tools in place, these opportunities are 'greatly reduced.' (Rooney, 2010, p.354). Marx reflected on the extent to which these practices are redefining the 'the meaning and experience of childhood' and wondered 'what does the world look and feel like to the child subjected to' such unprecedented levels of 'measurement and technical surveillance?' (Marx & Steeves, 2010, p.225). Pedagogies of surveillance can help 'establish a relationship of suspicion', with young people conceptualised as untrustworthy 'subjects of surveillance' (Fisk, 2014, p.579).

Rich conducted research with 40 young women over a period of three years and reported that 'school-based surveillant mechanisms' could be 'contributary in the development' of eating disorders, (Rich, 2010, p.818). Focus groups with 25 US teachers highlighted the growing prevalence of technology platforms in schools and their

implications for surveillance, noting that comparisons between the systems used by the schools and 'the Panopticon's all-seeing eye are hard to ignore' (Kumar et al, 2019, p.150).

A significant element of the literature around school surveillance is the impact of such approaches on children's developing consciousness of their own rights and privacy, (Birnhack et al, 2018, p.206). Giroux, refers to children under these approaches as 'youth in a suspect society,' (Giroux 2010), Taylor describes such schools as not 'necessarily safer, better or more conducive to learning' (Taylor, 2013, p.vii), whilst many researchers have suggested a 'school-to-prison pipeline' where these surveillant approaches significantly increase the chances of a child becoming involved with the criminal justice system, (Kupchik 2016, King et al 2018).

There are clear questions here too about how such approaches impact upon the consciousness of staff around their own rights and privacy. School staff live and work in these environments daily, and I am curious as to how they navigate and negotiate such systems where, 'punishment and policing have come to compete with, if not replace, teaching as the dominant modes of socialization.' (Simon, 2007, p.210). However, as Monahan and Torres note, within schools 'standardized tests and audits represent the most widespread forms of surveillance' (Monahan & Torres, 2010, p.5).

Data in schools
Foucault listed many forms of control including 'hierarchical surveillance, continuous registration,perpetual assessment and classification' (Foucault, 1991, p.220) each of which may seem familiar to those working in contemporary schools. The plethora of data bases existing in schools, and regularly updated by teachers, include attendance of individual

students, (recording the exact number of minutes a student may arrive late to class), in-class behaviours, submission rate of homework tasks, attainment in classwork and assessment results.   These data streams are linked to the individual student through the UPN (Unique Pupil Number), and software programmes can then generate reports aiming not only to track, monitor and predict academic progress but also to examine these results by a variety of categories including gender, SEN status, ability range, Looked After Children (LAC), Service Families background or those with English as an Additional Language (EAL).

Michael Power described an 'audit explosion' (Power 1997) and Onora O'Neill believes that we are living in a 'culture of suspicion' (O'Neill, 2002, p.18) rooted in our culture of accountability that 'superimposes managerial targets on bureaucratic process, burdening and even paralysing those who have to comply.' (ibid.).

In this way, dataveillance can be seen as an inherent and essential part of the growing audit culture (Carlile, 2018, p.23) and inextricably linked to the accountability agenda.   As accountability came to become the dominant discourse in schools (Lipman, 2010, p.161), surveillance also came 'to be accepted as a necessary and inevitable part of the way all schools function to some degree.' (ibid.).   O'Neill warned of this developing accountability culture when she described the 'detailed conformity to procedures and protocols, detailed record keeping and provision of information in specified formats *and* success in reaching targets.' (O'Neill, 2002, p.46). Such an audit culture is essential to a marketised school system and 'draws academies' focus away from structural inequality and focuses it in these disciplinary ways upon individual children.' (Carlile, 2018, p.27). Alongside the impact on school students, such dataveillant driven audit systems also effect school staff, with teachers experiencing 'accountability as a system of

intense monitoring and punishment.' (Lipman, 2010, p.161). Czerniawski noted the innocuous-sounding, yet undoubtedly surveillant, 'book-look', where senior managers would select a sample of exercise books to form a judgement on a teacher's practice; such an approach 'becomes a panopticon, internalised by teachers and students alike as they moderate their behaviour in the expectation that they just might be monitored by those in the 'watch tower. '' (Czerniawski, 2011, p.441).

The increased use of computer analysis has changed many aspects of society including schools. Data collection for software analysis aided by computers is now a central element of how schools are run and organised. Inputs are necessarily required to be numerical, tabulated and standardized. This creates two significant issues. Firstly, reduction of complex information to a numerical score allows little room for context and nuance. Secondly, some subject areas are better suited to this approach than others; if this is the dominant method of oversight and accountability employed in a school, then subject areas less suited may be adversely impacted. This may be a possible factor in the steady decline of school students opting to take GCSE and A level courses in Drama, Art, Music and Dance, (BBC News 2019) alongside schools increasing focus on EBACC subjects.

For Apple (2010) surveillance is:

> 'central to the project of conservative modernization, so understanding and critiquing that relationship must be a part of efforts to reconstitute the public sphere.' (Apple, 2010, p.190).

Exploring surveillance in schools

David Lyon views surveillance as having two sides as it 'both enables and constrains, involves care and control' (Lyon, 2001, p.3). If this is the case, it is unsurprising that surveillance is taking such a significant role in schooling, as Lyon's description of surveillance could apply equally to schools as institutions. Having looked at surveillance studies in general, and the study of surveillance in schools, we now turn to the specific research that has been undertaken in schools regarding the extent and impacts of surveillance.

Andrew Hope is a key researcher in the field of surveillance studies and the impact of such technologies in schools, often from a Foucauldian standpoint, and observed that Foucault has 'been extensively utilised in school-based studies of surveillance technologies and information databases' (Hope 2015i). Across wide-ranging research, Hope has warned about excessive and uncontrolled use of CCTV in schools (Hope, 2009), the educational impact of over-blocking of pupil internet searches (Hope, 2013, p.280), expressed his concerns at how the e-safety agenda 'inaccurately depicts children, mutes their voices, seeks the responsibilisation of students (and) misrepresents online risks' (Hope, 2015iii, p.351), and the opportunities and problems associated with education and social network sites (Hope, 2016i, p.48). Hope has warned that neoliberalism 'will result in an increasingly complex manifestation of how surveillance objects operate in contemporary schools. To understand the evolving nature of the 'surveillance school' it will be necessary to look far beyond the educational institutions themselves.' (Hope, 2015ii, p.853). In a study on UK schools, Hope noted that technological tools themselves were less important than a consideration of 'how such devices work, how they are used and how they influence

individuals in the contexts in which they are embedded.' (Hope, 2010, p.320).

McCahill and Finn (2010) noted that surveillance studies had generally focussed attention on the watchers rather than the watched and conducted focus groups with eighty five 13 – 16 year olds, from three British schools, from a Foucauldian perspective but acknowledged that 'Some of our findings suggest that we should perhaps look 'beyond the panopticon' to make theoretical sense of the children's experience of surveillance' as 'Totalizing visions of 'panoptic' power tell us very little about how people situated in different 'social positions' respond to monitoring by 'new surveillance' technologies.' (McCahill & Finn, 2010, p.287). In the UK, Gallagher used Foucault's conception of the Panopticon to explore surveillance in a Scottish primary school, noting that 'The ways in which surveillance produced an embodied docility in the children were particularly striking' (Gallagher, 2010, p.265) but that 'these techniques of surveillance were muchmore messy, complicated and compromised than the idealised scheme of the Panopticon might suggest' (ibid. p.266).

Crooks (2019) reported on a two-year ethnographic study of technological surveillance and dataveillance in a US school; he noted many examples of raw data being reinterpreted by officials 'redrawing the bounds. . . after the fact' (Crooks, 2019, p.492) and concluded that:

> 'omniscient surveillance is a fiction: real surveillance regimes depend on interpretation, even in highly automated systems. Digital data do not merely represent some reality that is waiting to be categorized; instead, they dynamically order and reorder the world.' (Crooks, 2019, p.495).

Crooks recommended future researchers to 'problematize the way data are meant to

provide unambiguous accounts of past action in order to inform future behavior, (so that) we might imagine an alternative to the fatalism that accompanies the study of dataveillance in schools.' (ibid. p.495).

Finn (2016) explored ways in which the technologized production and use of data in schools can create and influence what he terms the 'atmosphere' of a school, referring to those 'more fragile, more fleeting . . . pockets or spheres which emerge and envelop members of the school,' (Finn, 2016, p.23). Through a careful listening to schoolteachers, I have recorded and explored such affective atmospheres in this study.

Conclusion

Hirschfield has observed that 'Schools in the United States generate so many suspensions, arrests, and court referrals that they help drive international trends in the use of such methods.' (Hirschfield, 2018, p.43). Consequently, they also drive international trends in surveillance studies, and it is not unsurprising that studies conducted in the USA dominate the research literature in this field. As my study focusses on the experiences of classroom teachers in English schools, my reading of the literature focussed particularly on the research conducted in schools in England. However, the issues raised by surveillance practices in schools are clearly not limited to England and I have also referred to research conducted in Scotland, the USA, Australia and Israel.

There are several gaps in the current literature of surveillance studies and around surveillance in schools. These include exploring these complex issues using approaches other than that of Bentham and Foucault, exploring school surveillance with a greater engagement with broader surveillance studies, and a thorough exploration of the felt experience of living and

working within an environment with a high degree of surveillance practices.

There is much work to be done in identifying and problematizing surveillance technologies in our schools and in applying the approaches of surveillance studies to the field of education. It is also clear that most of the research in this area has utilised Foucault to explore these complex issues; there may be much to be learned through using a wider variety of theoretical tools. For Schostak (2014) the process of recognising and 'Rooting out the anti-democratic and anti-co-operative practices' of surveillance in schools 'requires a constant and vigilant reflection on practices and forms of organisation by each teacher and teacher educator.' (Schostak, 2014, p.334).

The studies I have referred to in this chapter describe and analyse the situation in schools. Whilst this is important and valuable work, I feel these writings are of limited assistance in supporting school staff to respond appropriately to these changes in their working environment and cope effectively with such daily surveillance. For an employee to meaningfully challenge these practices would be hugely time consuming, distract from the core role of caring for students, and draw the individual into continual conflict with management. Such a stance would be unsustainable.

I am seeking ways in which we can use an engagement with theory to respond to, rather than describe, the situation of surveillance in schools. Having been unable to find research which speaks to me as a classroom teacher on these important questions, I have undertaken my own research to explore the nature and impact of surveillance technologies in schools and to consider whether a close reading of Ivan Illich may offer a way forward.
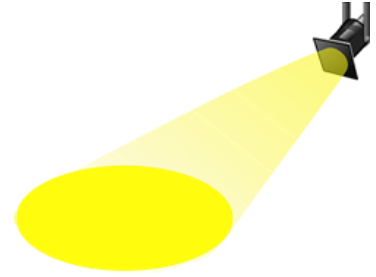
Chapter Three: Theoretical Framework - Ivan Illich

'Most contemporary critics of education. . . start from this dysfunction of present schools and suggest better schools by which people can be prepared for society. They do not question the purpose of institutionalized and compulsory learning.' (Illich, 1972i, p.ix)

'. . . the present wave of educators will only contribute to making the schools more effective in the production of members of a machine-like society.' (Illich, 1972i, p.x).

Surveillance in schools is a multi-complex issue that cannot be adequately explored through any single lens of enquiry. Much previous research has used Foucault's theoretical tools; I am interested to explore what we may learn by examining these issues using another perspective and what practical responses may be generated.

Thinking about Ivan Illich

Ivan Illich was a polymath: priest, teacher, philosopher, sociologist, theologian and historian. He held a doctorate in the philosophy of history, travelled widely and wrote extensively. The 1971 publication of '*Deschooling Society*' gained Illich a worldwide reputation as a critic of the school system, however he was not writing primarily about schools but society.

Applying Illich's ideas to contemporary issues offers fresh insights into both current questions, (through the lens of Illich's work), and opportunities to develop a deeper understanding of his thought, (by viewing him through the lens of contemporary issues). Few writers have used, or even referred to, the deep theological roots underpinning Illich's thought or taken note of his extensive body of work aside from *Deschooling Society* and *Medical Nemesis*. Ravenscroft noted that anyone writing academically about Illich:

> 'currently faces a perilous task, because of the paucity of good secondary literature and the absence of any scholarly consensus as to how best to read Illich's disparate, fragmented, and unsystematic body of work.' (Ravenscroft, 2016, p.49).

Understanding and utilising Illich's theoretical tools with a fuller integration of his ideas is vital if we are to more deeply appreciate his philosophical project and contribution to knowledge. David Cayley disagreed with any attempt to neatly separate Illich's sociological and theological writings, believing a full understanding of the unity of his thought to be essential, (Cayley 2005). Indeed, Illich's later work on Hugh of St Victor has received so little attention that Cayley was prompted to write that this was:

> 'one of Illich's most accomplished works. . . (yet is has) received few reviews and for years I have looked in vain for references to it in other books to which his argument is germane.(…) it is shocking that Illich's book should be so neglected by other scholars.' (Cayley, 2005, pp.27-28).

These are arguments, approaches and insights I do not intend to neglect. Illich's work was characterised by a sustained focus on the interconnection between people and tools,

and this grew out of his deep reading of the work of the French philosopher and lay theologian Jacques Ellul.

Jacques Ellul and *la technique*

The French sociologist and theologian Jacques Ellul was a key theorist of technology. Ellul became increasingly concerned by society's approach to new technologies, noting that as religions may be characterised by uncritical worship, so 'technology tends more and more to become the new god.' (Wilkinson, 1964, p.xi). Ellul developed his conception of *la technique* which 'does not mean machines, technology, or this or that procedure' but the 'totality of methods rationally arrived at and having absolute efficiency. . .in every field of human activity.' (Ellul, 1964, p.xxv). For Ellul, 'no social, human, or spiritual fact is so important as the fact of technique in the modern world. And yet no subject is so little understood.' (Ellul 1964 p.3). In his earlier writings, Ellul had stated that technology could become a liberating force, yet in an interview recorded shortly before his death, he said that computerisation may have initially held the promise of changing our society for the better but:

> 'In the end I realized that instead of using information technology to liberate man from the shackles of technology, man had reintegrated it in the system and enhanced its power.' (Ellul & Troude-Chastenet, 2005, p.116).

In the early 1990s, Ellul warned that rather than freeing ourselves 'from the shackles of technology (we have) surrendered to further intrusion into (our) personal life' (Ellul & Troude-Chastenet, 2005, p.116): a statement that seems remarkably prescient in the age

of Google.

Through his conception of *la technique*, Ellul 'tried to show how technology is developing completely independently of any human control' (Ellul & Troude-Chastenet, 2005, p.119), with the result that the 'means have become the goals and necessity a virtue,' (ibid.). For Ellul, 'Technology provides us with cures for our ills by creating further ills' (Ellul & Troude-Chastenet,2005, p.124), and linked his ideas of *la technique* to Illich's analysis of limits and conception of counter-productivity, (Ellul 1980, Ellul 1990). Ellul believed technology was the preeminent societal phenomenon of the modern world. In one of his final interviews, Ellul was asked to summarise his work and replied that he had tried to show that technology was developing outside and beyond human control and that we are 'building an artificial universe' in which human being are increasingly constrained (Ellul & Troude-Chastenet, 2005, p.119).

Illich and Ellul

It is surprising that recent books on Illich (Hartch 2015, Baldacchino 2021, Cayley 2021), make little reference to Ellul. Illich's debt to Ellul is unequivocal; he stated bluntly that the 'debt is unquestionable' and that he owed to Ellul's work 'an orientation that has decisively affected my pilgrimage for forty years.' (Illich, 1993ii, p.1). I am startled that the text of this speech has received only three citations (as of April 2021). In five pages of dense prose, Illich talks explicitly of his debt to Ellul and provides one of the clearest overviews of how he adapted and applied Ellulian concepts.

For Illich, Ellul was a man who 'simultaneously challenges the reflection of both the philosopher and the believer.' (Illich, 1993ii, p.1). For the philosopher of technology,

Ellul's work provides a reminder that the 'subject may be too terrible to be grasped by reason alone,' and for the believer he identifies 'two uncomfortable and disturbing truths' that may deepen their 'Biblical faith and eschatological hope,' (Illich, 1993ii, p.1). These two 'truths' are i) the view that as our current society and culture have been shaped by *la technique* to such an extent that it is simply not possible to make comparisons between it and any other society in human history and ii) that in order to fully understand a modern society shaped by *la technique* it is imperative to see how this has developed as a 'result of a subversion of the Gospel' as 'the unique character of the time in which we live cannot be studied rationally if one does not understand that this age is a result of a corruption *optimi quae est pessima* (corruption of the best which turns out to be the worst)' (Illich, 1993ii, p.1).

Falbel, reflecting on Illich's work, commented that, 'Genuinely human acts have been more and more replaced by the operation of machines, institutions and systems.' (Falbel, 2002, p.131). Likewise, Kugelman notes Illich's concern at the proliferation of systematising tools and expressed his view that such an approach '. . . not only atrophies human abilities, but it also disables the social relationships in which the activities take place,' (Kugelman, 2002, p.80). Having been a schoolteacher for twenty years, my own experience is that our increasing focus on technical solutions to human problems has served only to create fresh difficulties without addressing the original issue.

I contend that Illich's work cannot be fully understood without an appreciation of his theological positioning and his engagement with the writings of Ellul.

Illich on technique and tools

Illich used the word 'tools' to refer to all systems and techniques designed to address specific problems; a tool was 'something that incorporates, materializes, or formalizes a human intention,'(Illich & Cayley, 2005, p.202). However, beyond a certain limit, Illich held that tools became counter-productive and lead to social iatrogenesis whereby they may cause the very problems they aim to address. The medical term 'iatrogenesis' refers to harm caused by the physician, however Illich used the word to denote ways in which unchecked approaches can become a cause of the problems they ostensibly seek to resolve. Illich believed all institutions and tools could be seen to pass through two distinct watersheds. In the former, they address a specific issue and prove useful, yet at a certain point they begin to translate means into ends and become counterproductive. An example would be the use of motorised transport which allows easier access to travel, yet at a certain level restrict movement: it is now estimated that drivers in London spend 74 hours per year stationary in traffic, (BBC News 2018).

In later writing, Illich focussed on the idea that a tool may be 'picked up, or not picked up, by a person who wants to pursue the goal that corresponds to (the) intention,' (Illich & Cayley, 2005, p.202) and maintained that the 'epoch of instrumentality, or the technological epoch, came to an end within the last twenty years,' (Illich & Cayley, 2005, p.157) and had been replaced by an age that viewed the 'world conceived as a system.' (Illich & Cayley, 2005, p.162). This new epoch caused him great concern as he came to believe that the increasing use of systems analysis and the pervasive effect of computers, to both support and re-frame our interactions, were creating a new way of living that presented significant dangers; 'I live in a manufactured reality ever further removed from creation. And I know today its significance, what horror threatens each of us.' (Illich,

1992ii, p.3). Systems thinking generated by these tools leads to the interiorization of such approaches and is fast becoming essential for our 'survival within a technical system', (ibid p.4). As Garrigos has noted:

> 'Obligatory schooling, hospitalized medicine, a network of freeways, or long-distance communications may be technological challenges, but learning, friendship, or the discovery of another culture is not.' (Garrigos, 2002, p.113)

Applying Illich's Theoretical Tools

Illich was concerned at the dehumanising impact he observed in the growing use of technologized approaches to social problems as '. . . economic development has always meant that people, instead of doing something, are instead enabled to buy it. Use values beyond the market are replaced by commodities.' (Illich, 1981, p.4). Working in a pastoral role, I am conscious of the extent to which regular teacher-student interaction has been replaced by software programmes used to track and monitor students as well as to offer online counselling.

> "*Needs*", in a vastly more interdependent, complex, polluted and crowded world, can no longer be identified and quantified, except through intense teamwork and scrutiny by systems specialists. And in this new world, the needs discourse becomes the pre-eminent device for reducing people to individual units with input requirement.' (Illich, 2010, p.107).

One element of the dehumanising nature of surveillance approaches is that the social relationship has been replaced by expensive technologized approaches which re-conceptualise behaviour and academic progress as commodities open to market

exploitation. Illich viewed the new goals of 'medicalised prevention, bureaucratic environmentalism, professionalized self-care from birth to death' as a 'new illusion (that) could become more iatrogenic' than previous illusions around medicine and health care (Illich, 1978ii, p.10). In its place he proposed conceiving of human life as a multidimensional balance and a 'triadic relationship between persons, tools, and a new collectivity,' (Illich, 1973, p.xii).

In his earlier work, Illich's aim was to reconceptualise human relationships and our wider engagement with the environment in terms of a recognition of natural limits and the embracing of self-imposed austerity that focussed on building a more 'convivial' life (Illich 1973) as opposed to our technologized and professionalised society where 'The hope to accomplish the good has been replaced by the expectation that needs will be defined and satisfied.' (Illich, 2010, p.98).

As Samerski has noted, apart from Illich, most discussions around technology and degrowth have exclusively focussed on material devices rather than the 'historically unique relation of humans to their instruments.' (Samerski, 2016, p.1637). Illich's friend and colleague Alfons Garrigos has noted that 'Illich's work is a criticism of the predominance of the technological mode in Western culture.' (Garrigos, 2002, p.114). However, by using Illich we can focus on the disembodying and alienating nature of technological approaches through the distinction between 'autonomous action and heteronomous needs satisfaction, between vernacular subsistence and industrial production, between convivial and manipulative tools.' (Samerski, 2016, p.1637). Illich maintained that our language and terminology had not kept pace with technological changes and that a new lexicon was required as 'I consider it a perversion to use the names of high-sounding illusions which do not fit the world of computer and media for the

internalization and embodiment of representations from systems and information theory.' (Illich, 1992ii, p.5).

Illich calls for us to oppose the pleonexia, or radical greed, he perceives in modern society with a deliberate 'technological ascesis . . . a critical distancing from the symbolic effects of mind- boggling tools such as the computer that increasingly shape self-perception and subjectivity.' (Samerski, 2016, p.1638).   For Illich, such a distancing is vital if we recognise the social and emotional impact on individuals resulting from a technologized way of interacting, as:

> 'To demand that our children feel well in the world which we leave them is an insult to their dignity. Then to impose on them responsibility for this insult is a base act,' (Illich, 1992ii, p.4).

The Challenges of Ivan Illich

There are four principal areas of challenge when attempting to study and use Illich's theoretical tools. Firstly, his approaches were not set out in a single, systematic manner; he often describes his published books and essays, in a slightly dismissive manner, as 'drafts' (Illich, 1981, p.1), 'footnotes' (Illich, 1993i, p.5), as a 'summary of discussions,' (Illich, 1974ii, p.9) 'working papers'(Illich, 1986, p.i), or even 'lecture notes.' (Illich, 1993i, p.4). I do not believe this was modesty, rather a genuine view that his publications merely reflected his thoughts at that given time. Illich often appears faintly aloof regarding his publications, stating that they were 'literally written for the moment' (Illich, 1970ii, p.11) and memorably described them as 'the records of a man climbing who searches for his way rather than reports from the mountain top.' (Illich, 1970i, p.13).

His final published volume includes the warning and exhortation that:

> 'I have not written this book to make a learned contribution. (...) No one should be misled into taking my footnotes as either proof of, or invitation to, scholarship. They are here to remind the reader of the rich harvest of memorabilia (…) which a man has picked up on repeated walks through a certain area, and now would like to share with others.' (Illich,1993i, p.5).

Any attempt to apply Illich's philosophy first necessitates constructing an approach from the varied ways in which he explored specific issues. It is frequently not possible to assert what Illich meant regarding a particular question as his views continually developed and deepened. For Cayley, 'his books were works in progress, rather than expressions of a finished position or preformed scheme' (Illich & Cayley, 2005, p.24). Few of his publications contain a list of references and most lack an index. This unsystematic approach to presenting his ideas creates difficulties for anyone hoping to decide what Illich meant regarding a specific topic or how his ideas could, or should, be employed. I have chosen specific writings to explore issues and have tried to be clear to which publications, and phase of his life, they belong. I am trying to think *with* Illich; it is not possible to meaningfully state what Illich would have thought about these questions for the reasons given above.

A second challenge is that Illich often engages with issues apophatically. Apophatic theology is an approach based on negation, the determination to describe something with reference to what may not be said. Apophatic literally means '*to deny*' and forms a complementary approach to cataphatic theology (which uses positive terms to refer to the Divine). Apophatic theology aims to explore truth, beauty and goodness by negation. Illich's use of apophatic approaches is subtle and often involved discussing an issue in an implicit, or hidden way, by seeming to speak of something different. Once we are aware

Illich is writing in an apophatic tradition, we can see that *Deschooling Society* is certainly not solely about schools, (Hoinacki, 2002, p.1). That Illich's apophatic stance has been missed by so many is slightly puzzling. In the 1970 introduction to Illich's second published collection, James P Morton clearly informed readers that 'Illich uses the apophatic logic of classical negative theology,' (Morton, 1970, p.8). Despite this early statement, there can be little doubt that few of Illich's readers over the decades have been aware, or understood the implications, that Illich's writing used an apophatic approach, (Hartch, 2015, p.146). It may be challenging to create and utilise a theoretical stance from Illich's subtle, and continually evolving writings, but constructing an approach from what Illich does *not* say on an issue is far from straightforward.

Thirdly, Illich's engagement with issues continually developed following discussion with friends and colleagues, and in the light of further research. Indeed, Illich distanced himself from several of his books and made clear he did not always recognise his earlier ideas. In an interview with Cayley, Illich joked that 'in an examination of what Illich has said and meant, you would pass with flying colours, and I wouldn't get a passing mark!' (Cayley, 1992, p.119). He continued by stating he felt 'embarrassed and fascinated' when looking at his previous publications because 'the context and my way of saying things has changed.' (ibid.). Illich said he felt honoured his books were read and commented upon, but his final view was that 'they are dead, written stuff of that time.' (ibid.p.120).

I feel that one specific example is pertinent here; having completed the essays that would form his most successful, and controversial, book, *Deschooling Society*, the manuscript was duly sent to the publishers:

'The book was nine months at Harper's (...) During the last month, the prepublication month, I suddenly realised the unwanted side effects the publication of my book could have.' (Cayley, 1992, p.73)

Accordingly, Illich wrote an article for the *Saturday Review* distancing himself from *Deschooling Society* before that title was even published. When we make claims regarding Illich's views on an issue it is important to clearly note where and when he stated it and to be aware of his developing views on that subject.

The lack of secondary literature creates a fourth area of challenge as there is often no clear consensus on Illich's analysis, his theoretical approaches or how they may be employed. This lack of consensus (Ravenscroft, 2016, p.49) around how to read and utilise Illich's work creates an additional level of challenge.

It is not in spite but because of these challenges that I find Illich's work so engaging and decided to use it in my thesis to explore how surveillant technologies change the ways teachers experience, and conceive of, school. Using Illich in this way may help me as I continue in my work as a schoolteacher and may also be of value to my colleagues.

How might thinking with Illich offer a way forward?

As a teacher, my concern is not simply to describe the current issue in schools but to suggest ways by which they may be addressed. Jacques Maritain probably introduced Illich to the idea of the corruption of Christianity (Hartch, 2015, p.154) and this theological stance is the keystone to understanding Illich's writings (Garrigos, 2002, p.120, Cayley 2005, Taylor 2005). Illich shared Newbigin's concerns around the

consequences of abandoning intrinsic teleology as the principal way of understanding the world (Hartch, 2015, p.166). I contend that surveillance approaches replace intrinsic teleology with an extrinsic teleology that views both staff and students as factors within a system structured and viewed in relation to data processing. Additionally, few writers have taken sufficient notice of the deep theological underpinnings of Illich's work but this '… is a dimension of Illich's project that cannot be neglected' (Bruno-Jofre & Zaldivar 2012) as his critique of modernity is rooted in his apophatic approach to theology. Whilst the role of Christianity in the development of modernity has been discussed by many, Canadian philosopher Charles Taylor noted that 'Illich changes the very terms of the debate. For him, modernity is neither the fulfilment nor the antithesis of Christianity, but its perversion.' (Taylor, 2005, p.ix).

Whilst engaging with my supervisors, I have come to realise that the focus of my research is less upon the technologies of surveillance themselves but on the impact such approaches are having upon individuals and the way in which the role of the teacher is being reconceptualised. A significant 'remodelling' of all aspects of the teacher's role has already been undertaken under neo-liberalism, (Ball, 2013, p.167). The key texts I read, and were referred to by lecturers, when training to be a teacher now seem to be from another world. Writing in 1950, Russell suggested the teacher should be compared to an artist or philosopher as they can only perform adequately if they believe themselves 'to be an individual directed by an inner creative impulse, not dominated and fettered by an outside authority.' (Russell, 2009, p.119). For Musgrove and Taylor, the role of a teacher consisted of four main elements 'discipline, teaching, personality and organization.' (Musgrove & Taylor, 1971, p.46). However, it was with a high degree of prescience that they concluded that:

'During the first half of the twentieth century the autonomy of the teacher has reached – and now perhaps has passed – its high-water mark.' (Musgrove & Taylor, 1971, p.79)

For Ball, the effect of multiple policy approaches by both Conservative and New Labour administrations has resulted in 'teachers having been remade within policy,' (Ball, 2013, p.171) to such an extent that the work, role and meaning of being a teacher has been 'discursively rearticulated' (ibid.). O'Neill feels the role of the teacher is quite clear; 'teachers aim to teach their pupils' (O'Neill, 2002, p.49). However, whilst this is the proper aim for a teacher, it 'is not reducible to meeting set targets following prescribed procedures and requirements.' (ibid.).

In her study of Academy schools in England, Kulz noted how young the teachers were and the remarkably high turn-over rate of staff; she felt that teachers were being re-conceptualised away from a child-centred educator toward that of a 'dynamic business professional.' (Kulz, 2017, p.142). This reconceptualization of the role of the teacher and the children in their care, underpinned by a surveillance and behaviour management culture, is at the heart of my study. Illich, drawing on the writings of the twelfth century Hugh of St Victor, conceived of our relationship to one another not as the 'professional' relationship outlined in the many rules and statutory regulations underpinned by the Teachers Standards (Department for Education, 2011) but with a telos, a relationship that 'cannot be reduced to a norm... (which) aims at somebody... but not according to a rule.' (Illich & Cayley, 2005, p.52).   Illich condemned such professionalised relations as creating 'disembodied people' (Illich & Cayley, 2005, p.221) as the result of an outlook in late modernity where a rules-based approach has come to dominate the nature of our

interactions with each other; he termed this way of viewing the world and others 'algorithmization' (ibid). For Illich, it 'has become almost impossible for people who today deal with ethics or morality to think in terms of relationships rather than rules.' (Illich & Cayley, 2005, p.52). The prescience of Illich's writing can be seen in the fact that computer algorithms are today used in many aspects of our lives; as well as operating 'self-drive' cars and trading commodities on Wall Street, algorithmic approaches based on decision trees are increasingly used to structure customer service conversations, government planning and even to organise and formulate medical diagnoses (Steiner 2013). The 2020 grading debacle was an interesting moment as teachers, and the wider public, became more aware of the use of algorithms in exam data analysis and grade setting. The more they learned of this practice the less they seemed to approve.

In 1970 Illich wrote that there was a deep 'pedagogical hubris' at the heart of modernity as we act in the 'belief that man can do what God cannot, namely, manipulate others for their own salvation.' (Illich, 2002i, p.50). Illich held that the developing consumer culture, and the need to continually create and expand fresh markets for growth, was at the heart of the problems of modernity; the significant sums being spent by schools on technologies, even during a period of financial austerity, and the lack of discussion around their use are something I wish to explore for 'as long as we are not aware of the ritual through which the school shapes the progressive consumer – the economy's major resource - we cannot break the spell of this economy and shape a new one.' (Illich, 2002, p.51).

In a speech in 1990, Illich offered one of the clearest statements of his opposition to 'professional paternalism, the ideology of scarcity, systems thinking, liberation theology' (Illich, 1992ii, p.4) by having hope in 'self-limitation (which) stands in opposition to

currently fashionable self-help, self-management or even responsibility for oneself, all three of which produce an interiorization of global systems into the self in the manner of a categorical imperative.' (ibid.).

Illich and the art of suffering

> *'Illich tried to think and live his Christian faith in the thick of modern ideas and institutions.'* (Illich & Cayley, 2005, p.44)

Illich did not work solely to describe and analyse contemporary problems; he was also concerned with discovering, or *recovering*, ways to live with our difficulties. Equally, my own interest in this study is not solely to describe and analyse surveillance in schools but to explore ways by which school staff can live with this situation. As an employee, there are few opportunities to meaningfully oppose the use of such approaches and, on a daily basis, the question is how to live with them. As is to be expected from a man who enjoyed a long and very varied life, Illich experienced his share of difficulties and setbacks. His time running a Catholic centre at Cuernavaca was fraught with problems, he engaged in many controversial debates, and this culminated in a summons to Rome on a charge of having become 'an object of curiosity, bewilderment, and scandal' to the Roman Catholic Church, (Gray, 1970, p.233), following which he stepped aside from the active work of a priest. Throughout these difficulties he maintained a stoic self-discipline and detachment.

His most sustained engagement with the issue of responses to difficulties, pain and suffering comes in his most substantial work; originally published as *Medical Nemesis – The Expropriation of Health* (1975) in the Marion Boyars *Ideas in Progress* series, it was

republished in 1976 in a significantly expanded form, (reflecting the ways he had engaged with the critical response to the first publication), as *The Limits to Medicine.* Here he maintained that a large and growing proportion of all pain 'is man-made, a side-effect of strategies for industrial expansion.' (Illich, 1976ii, p.135) and believed that traditional cultures approached the question of pain and suffering from a quite different starting point to our contemporary stance, as they recognised that 'reality is harsh and death inevitable.' (ibid.). As such, he felt the only rational response was the stoic acceptance that we will face pain and difficulty in life and a philosophical, or theological, resolve to bear them with dignity; to develop an art of suffering.

For Illich, 'cultures always have provided an example on which behaviour in pain could be modelled: the Buddha, the saint, the warrior, or the victim.' (Illich, 1976ii, p.145). Such models are important as 'the duty to suffer in their guise distracts attention from otherwise all-absorbing sensation' and challenges us all to live with dignity (ibid.). Such cultural archetypes provide 'the grammar and technique, the myths and examples used in its characteristic "craft of suffering well"', (ibid.). Illich contrasts such vernacular responses to suffering with modern approaches that have 'rendered either incomprehensible or shocking the idea that skill in the art of suffering might be the most effective and universally acceptable way of dealing with pain.' (ibid).

With the growing medicalisation of our culture, the social characteristics of pain and suffering change; vernacular culture may recognise 'pain as an intrinsic, intimate, and incommunicable "disvalue"', modern medicalised society views it as something that can, and increasingly must, be 'verified, measured and regulated.' (Illich, 1976ii, p.137). Yet Illich rejects this notion of meaningful medical progress, noting instead that the individual who is in pain 'is left with less and less social context to give meaning to the experience

that often overwhelms' them (ibid p.138).

In the view of his friend and colleague David Cayley, Illich wanted to 'uncover and encourage the abilities, intuitions, and encounters that are smothered by the blanket of professional care.' (Illich& Cayley, 2005, p.38). This was not solely an academic interest but a personal one. When a bump appeared on his cheek in the late 1970s, many of his friends feared it was cancerous; Illich decided not to accept any treatment, believing that this was a 'cross that he should not try to avoid bearing.'(ibid. p.38). The lump was indeed malignant and over the next twenty years it developed into tumours which swelled to the size of a grapefruit, causing significant discomfort and pain. However, Illich responded to this problem in a manner fully in keeping with his personal philosophy and theology; he rejected professionalised care and lived with his suffering through self-discipline and a combination of:

> '...good humour, great generosity with his time and counsel, expansive enjoyment of life's pleasures (...). By the end, he had drained his cup to the last drop and one morning laid down and peacefully died. No one who had known him well would have dared to say that he died "of cancer".' (Illich & Cayley, 2005, p. 40)

Conclusion

> *'Illich... was a contradictory figure – a sophisticated and quintessentially modern man who wanted to be a "remainder of the past", a highly educated apostle of deschooling, a jet-setter who advocated limits to speed, an aristocrat who tried to revive the vernacular, and a subtle intellectual who preached simple faith.'*
> (Cayley, 2021, p.467).

Whilst I chose to use Ivan Illich's work as a theoretical framework, critiques exist both in the literature, and in my own thinking, around his work. Criticisms of Illich's ideas and

approaches were apparent from the very beginning of his academic career. Francine du Plessix Gray interviewed Illich in 1970 and wrote that 'Illich enjoys teaching by puzzlement, and answers questions in cryptic aphorisms...' (Gray, 1970, p. 283). She also noted that his written views are often '...expressed in Illich's rigorously scientific, methodological manner,' yet are 'cloaked in his Apollonian sarcasm.' (ibid., p.293).

It is undoubtedly the case that Illich's writing uses 'hyperbole, aphorism, wit and mythological allusion to attack (…) major shibboleths of the modern world.' (Hartch, 2015, p.131) and that such an idiosyncratic prose style can alienate some readers and lead to confusion regarding his ideas. Neil Postman felt that Illich's thought revealed him to be 'a mystic' and a 'utopian' (Postman, 1973 p.143) whilst David Cayley acknowledges that Illich often writes in a 'polemical though also poetical style.' (Cayley 2021, p.156).

As can be seen, criticism of Illich the man is strongly linked with criticism of his writings and ideas. However, whilst Illich's rhetorical flourishes can sometimes hinder engagement with his ideas, or even generate confusion around what is being said, his work is rich with consideration and contemplation of complex issues and may be of considerable use in thinking through similarly contested questions and contemporary situations. An important early acknowledgement of these criticisms, and defence of the value of Illich's work, was made by the psychologist Erich Fromm, who noted in 1969 that:

> *'The importance of his thoughts* (…) *lies in the fact that they have a liberating effect on the mind by showing entirely new possibilities; they make the reader more alive because they open the door that leads out of the prison of routinized, sterile, preconceived notions.'* (Fromm, 1969, p.10)

It could be argued that these critiques focus more on Illich's style of writing rather than his

theoretical tools and ideas. However, I believe that Illich's ideas are so inextricably connected with Illich as a man, that it is difficult to meaningfully disentangle the two without losing the subtleties of his thought which make his approaches novel and valuable. However, regarding the concepts and approaches Illich developed, we can tentatively see that three broad critiques emerge; the deep theological roots of his ideas, the unsystematic nature of his work and the lack of robust secondary literature reflecting on how his ideas could be applied. The strong theological underpinning of Illich's approaches is not a surprise as Illich was first and foremost an ordained priest. It could be argued that these theological roots are neither necessary nor relevant to a study of technology and tools. However, I would argue that Illich's critique of technological approaches has some validity and usefulness even when divorced from its theological root. The theological bedrock underpinning his work includes the *a priori* assumption of an implicit teleology for individuals. This is categorically different from the extrinsic teleology noted by Kulz in her study of *'factories for learning'* where children were valued based on the exam-grades they were likely to achieve (Kulz 2017). Whether we need to adopt a theological stance to underpin such a view is a personal matter, yet I maintain that the intrinsic teleology regarding children, inherent in Illich's work, is extremely important in any study regarding schools. As Samerski (2017) noted in a discussion of Illich's work, in many contemporary education settings 'schools enroll children to adapt themselves to the rules and goals of the institution' (Samerski 2017 p.1639).

The unsystematic nature of Illich's focus, work and writings can also provide a challenge – although not an insurmountable one. In the absence of a clear authorial statement, questions around how Illich's theoretical approaches relate to each other remain open and this fact can also give rise to fresh approaches and novel interpretations and uses of his ideas. If we are to use Illich's work as tools to help us think and reconsider established views that such an

unsystematic approach can be helpful in freeing us from unnecessary constraints.

The paucity of strong secondary literature applying Illich's theoretical approaches to practical questions could also present a difficulty; however, this also can offer fresh possibilities for identifying new perspectives on problems and intractable questions.

As we have seen, much of the research in surveillance studies has been completed using a Foucauldian analysis. In this study I am not using Illich as an authority. Instead, his ideas are being used as theoretical tools to help think through questions of surveillance and technology and to seek fresh perspectives. As such, I am following Fromm's advice that Illich's theoretical tools can open new possibilities, fresh approaches and help us to avoid preconceived ideas about the subjects under discussion, and how we may respond to them.

Chapter Four: Methodology

> *'Research is not always a matter of collecting information and answering the question.'*
> (Newby, 2014, p.35)

> *'The material world certainly exists, but it is not simply reflected in our talk or other forms of signification.'* (Burr, 2005, p.92)

The aim of this study is to ask schoolteachers about their experiences of surveillance technologies in schools and how these approaches affect their feelings and behaviour. My overarching research question was: *How do staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools?* To explore this, I developed three subsidiary questions; what effect do surveillance technologies in schools have upon relationships between colleagues and students? What is lost by the application of such surveillance technologies in schools? How can Ivan Illich's work show us a way to respond? This chapter sets out the methodology I chose to explore these questions and the thinking which lay behind those choices.

Epistemology and Ontology

It is important at this stage to consider my own position and philosophical starting point. Exploring my epistemological and ontological assumptions raised significant questions to be considered before I could begin the research. I needed to consider whether I regard the world as something fixed and objectively knowable, or as something socially constructed and therefore requiring interpretation.

Ontology is the 'study of being and existence in the world,' (Burr, 2005, p.92). Newby describes ontology as the 'specification of what exists' (Newby, 2014, p.35) and epistemology as asking the question 'how can we be sure?' (ibid. p.36). Burton et al (2009) are clear that a consideration of the conceptual models underpinning our theory and practice is not something that should be considered when the research data has been collected but should be 'part of the initial research design and influential on the research approach and methodology' as this will allow the transfer, analysis and presentation of the research to be 'as smooth as possible.' (Burton et al, 2009, p.146).

King and Horrocks state that 'theory guides us in research' (King & Horrocks, 2010, p.11) under two main philosophical assumptions underpinning the research process; positivism and interpretivism. The question of whether the world is fixed and can be known objectively, (a positivist stance), or whether it is socially constructed and should be interpreted, (an interpretive stance), is central to how an investigation can be undertaken. Positivism is usually associated with quantitative data collection (Burton et al, 2009, p.146) and aims to discover 'objective knowledge', which is 'value-neutral' and 'unbiased by the research/researcher process.' (King & Horrocks, 2010, p.12). This definition made me uncomfortable; whilst my significant teaching experience could be a strength, it would undoubtedly influence how I approach and interpret the results generated. I do not feel I can claim to be unbiased. Interpretivism however, (often associated with qualitative data collection), aims to explore 'how the social world is experienced and understood,'(King & Horrocks, 2010, p.11). Aiming to 'understand other people' and 'the interpretations which they give of what they are doing,' (Pring, 2015, p.117), seemed to fit best with my own position and my hope to better understand how teachers interpret and experience workplace surveillance technologies.

The stance taken in this study is interpretivist as I aim to explore and gain a deeper understanding of teachers experiences and feelings regarding surveillance technologies and this will involve 'interpretations of others' motives, attitudes, aspirations, intentions, values,' (Pring, 2015, p.123). The research generated may help me develop a clearer understanding and fresh insights into these aspects of the social world. I decided to undertake a qualitative approach to data collection as this would fit best with my ontological and epistemological position.

I was interested to further explore questions around research, reliability and validity due to my initial concern that research using diaries and interviews might not be seen to have a high degree of validity. Following further reading, I came to realise that I had operated within a positivist / empiricist paradigm in my daily work and previous research and that other approaches existed and were also valid. Burr (2003) addresses the concerns that quantitative, positivist research is seen as the 'cornerstones of legitimate research' but observes that social research does not aim to make claims of objective truth as 'all knowledge is provisional and contestable' and all accounts 'are local and historically / culturally situated,' (Burr, 2003, p.158). Instead of using terms like reliability and validity, Burr talks of 'usefulness', 'fruitfulness' and whether the research can lead to 'theory developments and novel explanations,' (Burr, 2003, p.159).

These issues often seemed intractable and the different texts I consulted frequently offered differing advice regarding methodological approaches. Burton et al (2009) devised a list of questions for education researchers to consider before selecting appropriate theory and methodology. There are many potential approaches for selecting the most appropriate paradigm and methodology and, to be frank, I initially found this to be a bewildering experience. However, Burton et al's seven questions were helpful and

I used this method to help structure my own thoughts, ideas and reading in this area. To present the differences between interpretive and positivist frameworks, they offer seven methodological questions and answers in relation to these two paradigms, (Burton et al, 2009, p.61-62). I re-wrote these questions and responded to them from the standpoint of my own proposed research. The questions included core enquiries, ontological enquiries, (how the researcher believes reality may be defined), went to the heart of my own position (how the researcher perceives themselves in relation to the research environment) and explored questions of validity and ethical considerations. Undertaking this exercise was useful and I have included this table in Appendix I.

As my research explores how teachers respond to new technologies within their place of work, I feel that constructionism is the most appropriate stance for this study. As the principal concern of phenomenology is how the world is experienced, I felt this may be an appropriate methodology for my study. These questions are not easily resolved but I concluded that researching the experiences of teachers regarding surveillance technologies was best undertaken using qualitative research methods underpinned by a social constructivist epistemology.

Methodological Considerations

> *'The method we choose to use to conduct research not only affects the outcome of the investigation, but also reflects how we see the world.'* (Tam, 2016, p.130).

> *'I interview because I am interested in other people's stories.'* (Seidman, 2013, p.ix).

In this study I use analysis of narratives around the daily technological surveillance experiences of participants and concentrate on the possible affective impacts of these experiences. In common with other researchers in this field, (Ellis et al 2013, Finn 2016) I feel it is more fitting to explore surveillance in context in terms of producing 'atmospheres' rather than 'assemblages,' (Ellis et al2013 p.716). Haggerty and Ericson (2000) wrote that individual streams of an 'essentially limitless range of (…) phenomena such as people, signs, chemicals, knowledge and institutions' are combined to produce a 'surveillance assemblage.' (Haggerty & Ericson, 2000, p.608). Ellis et al (2013) were critical of this view and suggested that the spaces produced by surveillance should:

> '...be thought of as complex and ambiguous, entailing elements that are both: ever-present and yet absent (unnoticed), material (embodied through the CCTV camera) and yet ethereal (the watcher of the camera is invisible), geographical (located in a particular time and space) and yet trans-geographical (transmitted to other times and spaces through the internet), and facilitating a safe and secure environment and yet facilitating distrust (invading privacy).' (Ellis et al, 2013, p.718)

Ellis et al preferred to use the term *atmospheres* as that word suggests 'moods, emotions, feelings, thoughts, judgments, perceptions, sensations, and all manner of social relations

and associated practices.' (Ellis et al, 2013, p.718). I am aware of surveillance technologies present throughout many school buildings, (yet apparently unnoticed), being physically located in corridors, (yet ethereal, as teachers are unsure where the images are recorded and stored), so feel this approach to exploring surveillance is helpful here.

Finn's conception of 'atmospheres' developed from his research in schools and is an attempt to describe and name something:

> 'which is more fragile, more fleeting and operates in 'pockets' or spheres which emerge and envelop members of the school in some classes and not others.' (Finn, 2016, p.33)

Following observation of pupils, Finn recorded that he watched 'bodily comportments noting how people stood, sat, slumped, moved around and used their bodies in individual and group learning activities. I noted the signals of smiles or downcast eyes.' (Finn, 2016, p.34). In my interviews I will try to be aware of these physical indications of thoughts and emotions as well as the words being spoken.

The methodological approach I have used in this study is an interpretative phenomenological analysis (IPA) as this stance is 'concerned with understanding personal lived experience and thus with exploring persons' relatedness to, or involvement in, a particular event or process.' (Smith etal, 2009, p.40). Jacques Ellul felt it was imperative that, when discussing the scope and impact of technology in society, we have an 'exact description of the phenomena involved,' (Ellul, 1964, p.xxxii). For both Heidegger and Merleau-Ponty, our knowledge about the world is essentially situated and interpretative (Smith et al, 2012, p.18) and Ellul proceeded in conducting his own

research in three distinct stages: starting from his own, isolated experience, then seeking counter arguments, before comparing his analyses with those of others working in the same or similar fields. (Ellul & Troude-Chastenet, 2005, p.40). This is an approach reminiscent of Illich's method of researching and writing his books (Hartch 2015) and one I intend to follow for this study. In phenomenological research, a starting point is to 'suspend all judgements about such matters until they can be founded on a more certain basis,' (Stewart & Mickunas, 1974, p.7).

Choice of methods

When choosing the most appropriate methodology for my study I had to carefully consider the specific nature of the enquiry being undertaken. A quantitative analysis of the current extent of surveillant approaches in schools, (whilst a gap in the current literature), was not what I wanted to undertake at this stage. Witnessing and experiencing the gradual increase of these surveillant approaches has led me to be curious about the thoughts and feelings of my colleagues around these issues.

Titchen and Hobson (2012) note that phenomenological experiences can be researched both directly (through accessing cognitive knowledge) and indirectly (through 'investigating human being through bodily sense / perceptual awareness' (Titchen & Hobson, 2012, p.122). They recommend that researchers using an indirect approach should aim to become involved in, and connected to, the situation being explored and to 'immerse themselves, literally, in the concrete everyday world they are studying, so that they can better understand participants' wisdom of the body, intuitions, shared looks of unarticulated understanding and undisclosed, shared meanings between the words and in

the practices.' (Titchen & Hobson, 2012, p.122).   Reading this section, I realised that a phenomenological approach was the methodological stance I wished to take. Having worked in schools from 1999, (when records were entirely paper-based and the profession was strongly unionised, through the gradual introduction and increasingly ubiquitous presence of datafication (Stevenson 2017i) and technologized recording and surveillance techniques), I feel that I may be said to have immersed myself in this area of study.

As phenomenology is the study of 'lived, human phenomena within the everyday social contexts in which the phenomena occur, from the perspective of those who experience them' (Titchen & Hobson, 2012, p.121), this seems a highly suitable approach with which to explore the ways surveillance technologies are experienced by individuals working in such environments. I am interested in using phenomenological approaches as a 'means by which someone might come to identify the essential qualities of that experience.' (Smith et al, 2012, p.12).   As phenomenological approaches are used to explore questions of personal experience and meaning-making, I felt this would be most appropriate as, rather than seeking a definitive answer to a question, phenomenology 'is committed to descriptions or experiences, not explanations or analyses.' (Moustakas, 1994, p.58). Such a stance is also in keeping with the theoretical approaches of Illich and Ellul as they were often ambivalent and equivocal in their stance around definitive truths. For Ellul, the essential task remained the construction of a complete description of the technological society and until that was achieved and the problems 'correctly stated, it is useless to proffer solutions,' (Ellul, 1964, p.xxxii).

By adopting a phenomenological stance, I feel my methodology accords with the theoretical approach I have chosen.

Developing a Research Question

Newby (2014) identified four methodological approaches for educational research, and I have chosen to adopt an ethnographic methodology as it aims to understand and explain a particular phenomenon (rather than testing or trying to develop practice), involves investigation and conversation from within (rather than observation from without), and seems most appropriate as I am entirely part of the situation being studied (Newby, 2014, p.67). Whilst I was clear I wished to explore the impact and effects of surveillance practices in English schools, I was initially uncertain how to operationalize these considerations into a coherent research question. Cohen et al (2007) recommend 'deconstructing' the issues under consideration into their component parts and to then generate potential research questions focussing on 'issues that lend themselves to being investigated in concrete terms,' (Cohen et al, 2007, p.82).

Having spent some time considering the most appropriate approach for my research, I concluded that my research question would be: *How do staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools?* This research question could then be divided into three subsidiary questions as a way of exploring the participants' responses: firstly, what effect do surveillance technologies in schools have upon relationships between colleagues and with students? Secondly, what is lost by the application of such surveillance technologies in schools? Thirdly, how can Ivan Illich's work show us a way to respond?

Data Collection

A wide variety of data collection methods are available including questionnaires, interviews, observations, using existing data bases and conducting specific tests and assessments. I decided a key element of my research would be a series of interviews, as I felt this would best enable me to address my research question around the feelings and perceptions of school staff.

However, posing questions to a participant in an interview situation necessarily involves a retrospective consideration of thoughts and feelings and I was keen to record more immediate responses to these experiences in schools. I therefore decided to ask participants to first complete a diary in relation to technology in school and to then structure my interviews around the material recorded in those diaries. Participants were given a hard-covered book with unlined pages and asked to record any examples, incidents or thoughts that occurred to them regarding the issue of surveillant technology in schools. It was suggested that this could take place over a six-week period as this was the approximate length of a school term and therefore a standard unit of time in school settings. Whilst the interviews would unavoidably retain an element of retrospective consideration, the information written in the diaries would potentially have been recorded when those thoughts or experiences were fresh in the mind of the writer. I considered that the two approaches together would be a useful combination in researching this situation.

A further issue was how to obtain a sample of school staff willing to take part in my research. I could appeal to the staff at my current school, union members at a meeting, or request support at one of the meetings or educational events I attend. However, I was not comfortable with making such a formal request in any of those settings; I have

previously attended staff meetings where a teacher has requested volunteers for a research project and the Headteacher has then encouraged the staff to take part. Such an approach could easily lead to uncomfortable situations, a lack of genuine informed consent and participants feeling obliged to engage. I was also very aware of the workload of my colleagues and was not willing to have anyone feel they had a duty to assist me. I concluded that the simplest approach may be the best; throughout my daily role as a schoolteacher, when attending union meetings, events at other local schools and conferences, I made it known that I would be conducting this piece of research and was looking for participants to complete a diary and undertake a short interview. I repeatedly stated I would not be asking anyone individually but if somebody was willing to take part, I would be grateful if they let me know later so that we could discuss it in more detail. Over a period of five months, I was approached by nineteen individuals who expressed a willingness to participate, however not all would take a full part in the study.

Of the initial nineteen, six later dropped out of the research and not all the remaining thirteen completed both a diary and an interview (see p.102 below). The reasons for this gave rise to interesting questions and I discuss this in Chapter Five. Whilst my sample is therefore very self- selecting, I was surprised at the mixture of backgrounds in the final group of participants; teachers from both primary and secondary settings took part and the level of teaching experience ranged from individuals in the first two years of their career to those who had been teaching for more than twenty years, (with one participant having recently retired). Curriculum subjects taught by participants were also highly representative, with teachers from the sciences, mathematics, the humanities, the arts, and physical education taking part. The gender balance was far from equal with ten of the thirteen participants being female; however, this may reflect the gender balance in UK schools where current

figures indicate that 69.5% of secondary school teachers are female and 82.4% of primary school teachers, (BESA 2019).

Whilst I acknowledge that my sample was not ideal, I maintain that by using this approach I was able to secure the participation of individuals who were genuinely interested in taking part and whose voluntary involvement was authentic.

Research Using Diaries

One reason for requesting school staff complete a research diary was prompted by Newby's description of an authoritative source having three elements; 'knowledge of the issue being researched, credibility as a source of information and reputation.' (Newby, 2014, p.227). I consider that someone who works in a school setting, and experiences technologized surveillance practices daily, (and has possibly done so for many years), would fulfil Newby's criteria as authoritative sources.

Research diaries recorded by participants can be a 'rich source of data' that can help us to 'make sense of their everyday lives,' (Silverman, 2014, p.298) yet I needed to bear in mind that they can also be 'unrepresentative. . . selective, lack objectivity, be of unknown validity and may possibly be deliberately deceptive,' (Cohen et al, 2007, p.182). The addition of an interview might help to balance these considerations. Diaries can also be useful not just for the information they contain but as a tool to 'inform and amplify' an interview (Johnson, 2001, p.185).

I was mindful of the workload of potential participants and that they would be making a significant commitment by volunteering to complete a research diary and, potentially, agreeing to be interviewed at a later stage. I was therefore reluctant to make too many

additional requests. However, I had been interested to read about reflective diaries as a method whereby the diarist can 'actively and purposefully consider their feelings, reactions, thoughts, beliefs, knowledge, responses, and experiences' (Vinjamuri et al, 2017, p.934). Whilst I believed such an approach could provide rich data, I was concerned it might be difficult to identify many willing participants for such a study and that it may not be appropriate to then request they undertake increasingly complex activities. Reluctant to abandon reflective diaries entirely, I decided to maintain my own to record daily experiences, impressions and thoughts around the use of technology and surveillance in schools as part of my own full-time work. Using the methods described by Vinjamuri et al, I attempted to 'think back on, describe, and process. . . (my). . . personal learning experiences' (Vinjamuri et al, 2017, p.935) around technology each day for a six-week period as an additional element of data collection. This also allowed a valuable insight into the level of commitment I was requesting from participants and this element proved to be informative and instructive in its own way.   Alongside the diaries and interview transcripts, I have included extracts from my reflective diary in this thesis.

One further consideration identified by Woll (2013) is that research diaries may produce copious quantities of information that is irrelevant to the specific question under discussion, thus making it more difficult to identify what is pertinent (Woll, 2013, p.2). I felt this presented a dilemma; if the information I gave to diarists was too specific there was a risk they would be influenced by the 'expectancy effect' (Cohen et al, 2007, p.411) and only identify and record experiences they felt were expected or being requested from them. I was deeply concerned to avoid unduly influencing participants and, as technologized surveillance is frequently presented in a negative light, I decided to pose the question in as wide and neutral a form as seemed practicable; diarists were therefore only

requested to:

Please use this diary to record any thoughts, ideas or experiences you have around the use of technology and surveillance / tracking / monitoring systems in schools.

Whilst this approach undoubtedly left me open to the concerns raised around the production of data not specifically relevant to my question, I felt it was appropriate as it might mitigate the risk of inaccurately implying to participants that I wished them to concentrate on negative aspects of surveillance. Additionally, it would be instructive to note the priority participants gave to these differing aspects of technology in school.

It is clearly important to remember that in 'articulating their experiences, diarists develop strategies (which may involve some degree of self-censorship, if not actually of denial) so that they feel satisfied with the version of themselves the diary projects,' (Crowther, 1999, p.212). That there is an audience for this writing 'however nebulous or unacknowledged' (ibid) will undoubtedly and necessarily influence the writer's choice of material and how it is presented. However, as diaries can 'vividly represent how people represent their activities and experiences' (Silverman, 2014, p.299) of everyday life, I concluded that seeking to collect diaries from participants had the potential to produce meaningful and interesting data, whilst also helping to structure and inform any potential interview with the participant at a later stage. Following advice from my supervisors, I purchased a stock of unruled, hard backed notebooks to use as diaries. The fact they were unlined meant participants might feel more willing to sketch ideas and include pictures as

well as words. Knowing the many conflicting demands facing teachers, I did not want to be too prescriptive around how and when diaries should be completed as I was concerned that this could unduly add to workload and stress. Therefore, I simply stated that I was asking participants to become more aware of examples of technological surveillance in their workplace, and their own views, and to record these thoughts and experiences whilst they were still fresh.   I suggested a completion period of six weeks, approximately a school term, but some returned the diaries significantly later than that, with one being returned after four months. In total, thirteen diaries were completed and returned to me. The quantity and usefulness of the material they held varied significantly, with most diarists writing at length upon school issues that had no clear link to the issues of technology and surveillance.   Examples included one diarist providing a full description of their career to date (12 pages) and their views regarding the nature of education (4 pages). Whilst this made interesting reading, it was not clearly linked to my research questions. I spent some time considering the approaches I had taken but as these had included lengthy discussions with each participant prior to presenting them with a diary and including key information on my research focus, and how to complete and return the diary, as inserts stuck into each diary, (see appendix IV), I am unsure how I could have made the type of information I was requesting clearer.

When first reading the diaries, I did not feel the exercise had been successful. All but one held little information which appeared relevant to my research question. However, as I re-read them, I came to see the many fascinating comments and observations they held; these were often scattered unsystematically throughout or presented as brief asides.   These comments were interesting in themselves but also supplied useful starting points for interview questions. Whilst the nature of the data generated was unsystematic, it was

congruent with my theoretical position as it mirrored Illich's own approach of reading sections of his research aloud, or posing questions, and then inviting comment and discussion. Illich's own thinking was not systematic but developed in response to experiences and discussions. I have tried to be similarly open in my own research.

Encouraging Drawings & Sketches

In conversation with my supervisors, it was suggested that information could be recorded in the diaries using images or sketches as well as written text. However, such visual material, and how it could be encouraged, needed some additional consideration.

Richards reminds us that information can be sought and imparted through methods other that verbal or written text and that participants' can also show 'their perceptions of their situation' (Richards, 2009, p.45) through drawings or sketches. However, Mitchell notes that 'there is no quick and easy way to map out the interpretive processes involved in working with visual research.' (Mitchell, 2011, p.11) and writes of the 'issue of interpretation' and ways in which using pictures can 'facilitate further dialogue and discussion.' (ibid. p.126). As my intention was to use the diaries to help inform the interviews, I felt that such visual material could be beneficial in facilitating and encouraging discussion.

It should also be noted that there are some things which can best be expressed visually; such forms of communication have a validity in their own right, and should not be seen solely as tools to aid discussion. The topic of surveillance opens many sensitive areas of thought and discussion; it may be the case that some participants might seek to allude to certain issues more obliquely than would be possible using words, (either written or spoken), and the opportunity to use sketches, pictures or diagrams provides another potential channel of communication.

King, Horrocks and Brooks suggest that images created by participants can 'work well to ensure that

interviews are firmly grounded in participants' everyday experiences of and interactions in relation to the research topic.' (King, Horrocks & Brooks, 2019, p.154). However, they caution that the interviewer 'should be very aware (and appreciative) of the additional time and effort this is likely to require of participants in addition to taking part in the interview itself.' (ibid., p.156). Asking teachers to complete a diary for six weeks was already requesting a significant commitment of time and engagement. I was wary of adding further tasks like drawing, yet was also keen to encourage people to do this if they wished. Whilst I felt it was important to state that drawings could be added to the diaries, and to include some encouragement for this, I was concerned that 'imposing too much control runs the risk of imposing the interviewer's ideas and losing the interviewee's perspective and voice.' (ibid., p.156). As the diaries were to inform the interview discussion, I felt that such visual images could help 'maintain focus on the interview topic, and to usefully aid the recall and discussion of memories that might not otherwise arise.' (ibid. p. 153).

Following reflection on these questions, I decided to provide unlined notebooks as diaries and to state briefly that sketches and drawings could also be included if participants wished. I felt that this would encourage those participants who might like to include visual images but would neither impose 'too much control' (ibid., p.156), nor add additional pressure to those participants who may not wish to include pictures. I believe this approach was successful as several participants did indeed include sketches and drawings and these proved a fruitful area of discussion. Several of these images are included and discussed in the Findings and Discussion chapters below.

Research Using Interviews

The interview is a 'flexible tool for data collection' (Cohen et al, 2007, p.349) and in addition, is an opportunity to not simply listen to the participant's words but also the 'respondent's voice is heard, and the words chosen, the phrasing used, the pauses and exclamations, and the tone of the reply,' (Newby, 2014, pp.288-289).

There are many forms of interview including semi-structured, in-depth, cognitive interviews and collective interviews. I opted to undertake a series of semi-structured interviews as I felt this would offer a clear outline to the conversation whilst also allowing significant flexibility to probe and explore issues raised and provide opportunities to seek clarification or address potential misunderstandings. A semi-structured interview could also enable me to focus on the emotional experiences and perceptions of schoolteachers regarding these issues.

Whilst interviewing can take a significant amount of time (Newby, 2014, p.359) to complete due to the need to contact and engage with potential participants before interviewing them and then analysing the data, it is also undoubtedly the case that 'any methods of inquiry worth anything takes time, thoughtfulness, energy and money,' (Seidman, 2013, p.11). It may also be the case that participants overlook or forget to mention information that may be of significant interest to the researcher (Woll, 2013, p.2), therefore, the opportunity to structure my interview based on a reading of the interviewee's previously completed diary appeared to be a practicable solution.

Seidman (2013) makes it clear that the purpose of an interview is 'not to test hypotheses,' and not to evaluate either but to attempt to gain an 'understanding (of) the lived experience of other people and the meaning they make of that experience,' (Seidman, 2013, p.9). Although the researcher may develop questions beforehand, 'these are varied, altered, or not used at all when the co- researcher shares the full story of his or her experience of the bracketed question.' (Moustakas, 1994, p.114). Whilst I generated an interview schedule, (see below), I responded to this advice by sharing the questions with participants a few days before the session to allow them time to consider that the questions were seeking discussions around their feelings rather than formal answers or statements

of opinion.

Using the Interview Schedule

> *'An interview is both the most ordinary and the most extraordinary of ways you can explore someone else's experience. It is as ordinary as conversation, and as intrusive as a spy camera.'*
>
> (Richards, 2009, p.42)

Cohen et al suggest consideration of whether planned interviews are seeking to elicit 'facts, opinions or attitudes' and whether 'specificity or depth is sought.' (Cohen, Manion & Morrison., 2007, p.356). As I was seeking a relatively small number of participants, (rather than sending a survey to a large number of potential respondents), my focus was upon gaining a deeper understanding of participants' views and opinions. It was evident that I would require a clear format to help ensure my interviews achieved this goal.

Richards (2009) notes that it is rare for qualitative methods to use standardized questions and observes that this is because the 'analysis techniques are seeking emerging ideas, not patterns in responses to fixed questions.' (Richards 2009, p.43). However, she also suggests developing specific questions to ask in the interview to help order and structure the discussion, (ibid., p.45). Whilst I did not intend to follow a rigid series of questions and answers, I did feel that a firm structure to the interview would be helpful to both the participants and to me as interviewer.

Cohen et al explain that creating an interview schedule 'involves translating the research objectives into the questions that will make up' the interview, (Cohen, Manion & Morrison., 2007, p.356), and caution that this 'needs to be done in such a way that the questions adequately reflect what it is the researcher is trying to find out.' (ibid.) This required careful consideration of precisely what I wished to explore in my research and a growing understanding that my interest was in the physical experience of working in an environment which uses extensive surveillance approaches.

Moustakas (1994) presents a schedule to help structure an interview. He notes that such 'broad questions' may also 'facilitate the obtaining of rich, vital, substantive descriptions' of the participants' experience of the issue being explored. (Moustakas 1994 p.116). I felt that this schedule was specific enough to provide a core structure to the interview processes yet was also sufficiently flexible to enable topics of discussion to emerge naturally during the interview process. I adapted Moustakas' interview schedule slightly and this is included as Appendix II.

I shared the interview schedule with participants several days prior to our interview, in order that they could read the questions and would have time to consider that I was asking about their feelings and the physical experience of surveillance approaches. In addition, I hoped this might help alleviate any anxiety they might have around taking part in a recorded interview. Several participants commented that they appreciated seeing the questions in advance and that it had indeed helped resolve any nervousness they felt and questions they had.

Preparing for, and conducting, the Interviews

For Moustakas, the phenomenological interview 'involves an informal, interactive process and utilizes open-ended comments and questions.' (Moustakas, 1994, p.114). Following a brief social conversation to help develop a 'relaxed and trusting atmosphere', (Moustakas, 1994, p.114), I suggested the interviewee 'take a few moments to focus on the experience, moments of particular awareness and impact, and then try to describe the experience fully,' (ibid). Czerniawski recommends rehearsing interviews beforehand and piloting them with a friend or colleague (Czerniawski, 2017, p.12). I aimed to follow this advice, and that of Seidman (2013) to 'listen more, talk less, and ask real questions' (Seidman, 2013, p.86) and took advantage of my daily work as a teacher to set class tasks where I interviewed my pupils around their understanding of our current text as a revision activity; the rest of the class had to both mark the pupil's responses and also check I was indeed listening more and talking less. I became increasingly aware of my tendency to respond too quickly and started consciously aiming to allow interviewees 'time to respond' by not stepping 'in too quickly to help,' (Czerniawski, 2017, p.12). My classes enjoyed pointing out how many times I jumped in too quickly and talked over my interviewee and after a few sessions I felt my interviewing technique improved noticeably and that I was ready to begin arranging formal interviews as part of this study.

The interviews were recorded on a Bush cassette recorder. This caused amusement to some participants, confusion to one young teacher and an approving comment from an IT teacher who noted that this meant there was therefore '*only one cassette tape to hold secure – it can't be copied very easily – very secure – very good.*' In line with Plymouth University recommendations and ethics protocol, (see appendix III), I purchased and carried home a (rather heavy) lockable filing cabinet. When not in use, both the diaries

and cassettes were, and remain, stored in that cabinet for additional security.

Two participants, identified below as Kevin and Karim, requested their interview be conducted jointly. This was for several reasons; they worked in adjoining classrooms and felt this would avoid my making a return trip, they generally left work at the same time and travelled together, so interviewing one would mean the other had to wait and, thirdly, they were firm friends who had discussed my research and the comments they had written in their diaries. I duly agreed to interview them together as a discussion and initially felt this had been a successful move; the tape recorded a lively dialogue that ran significantly beyond our expected duration and contained no real pauses or lulls in the conversation. However, on repeated listening I realised that Kevin dominated the conversation and, whilst I clearly tried to include Karim in the discussion and regularly spoke to him directly, in hindsight the discussion is rather one-sided. I had initially considered facilitating focus groups as part of this research, but this situation made me realise the additional complexities created when trying to interview more than one individual. Whilst much rich data was obtained during this joint interview, I did not feel it had been as successful as it might have been. I was not sufficiently skilled to ensure both participants had an almost equal amount of time and as a result I wish I had conducted two separate interviews with Kevin and Karim as this would have enabled me to explore in more depth their individual experiences and views.

Moustakas suggests a general interview guide to 'facilitate full disclosures of the co-researcher's experiences,' (Moustakas, 1994, p.116) and I used this structure to create my own interview schedule (see appendix II). Whilst there was no specific time limit set on the interview, the fact that my interview schedule had six questions and that participants all selected to be interviewed at the end of a working day meant the interviews had an

average length of forty minutes, (with one interview only lasting almost two hours). In total, eight interviews were completed. Again, when initially listening to the recordings I felt the same as I had about the diaries; much of the conversations seemed to relate to issues outside of my research topic. However, when making transcripts, I began to appreciate the many relevant comments being made, the links between the interviewee's statements and the interesting effects of body language, (one participant frequently verbalised their own body language, telling me that '*your tape won't record that I am shrugging now*'), speed of dialogue and length of pauses during speech. I had raised concerns with my supervisors that such a small number of diaries and interviews may not provide sufficient material for a doctoral thesis; whilst they assured me that this could be so, it was only when making transcriptions, and reading them alongside the diary entries to more carefully listen to the participants, that I fully appreciated what they had meant.

Ethics protocol

Before being allowed to begin this research with Plymouth University, I needed to submit an ethics protocol and receive formal approval. This was submitted in July 2018. The Research and Ethics Sub-Committee queried whether seeking permission from Headteachers might be relevant if fieldwork was to be carried out in their schools. I resubmitted my request stating I did not feel it would be ethical to seek the written permission of Headteachers for their employees to take part in this research as it may put participants at significant risk if their responses were seen to be in any way critical of current policy, or it may encourage them to simply record responses in line with that policy. Additionally, as I was not recording school-specific information and was asking participants to engage in their own time, I did not feel it was appropriate to seek the

consent of their employer. Further, as I did not wish to record any identifying details of the schools where respondents worked, I did not intend to seek clearance from Headteachers, as paradoxically, this act would necessitate identifying the schools and individuals taking part. Formal notification of research ethics approval was received in August 2018. The ethics protocol may be found in appendix III.

Ethical considerations

There were several ethical questions to consider. I have worked in education in the same Local Authority area for most of the past two decades and have also been involved in many broader educational activities in the area. Additionally, I have completed three separate Master's degrees, each involving requests for volunteers to take part in my research. I was therefore surprised when this study provoked discussions with colleagues highlighting a deep disquiet by some around this topic. Being very aware of the conflicting pressures on school staff I remained explicitly clear that, whilst I appreciated anyone volunteering to take part in my research, there was no obligation to do so, and I fully understood if anyone wished to withdraw.

After several years of conducting small scale research or surveys, this was the first occasion where some volunteers clearly felt uncomfortable with the subject matter. Haynes and Macleod-Johnstone's conception of 'dangerous knowledge' (Haynes & Macleod-Johnstone, 2017, p.3) is helpful here as it encourages us to not simply recognise some topics of enquiry may give rise to uncomfortable feelings, but to actively consider how we can respond to participants in such cases. Issues I encountered included apprehension from potential participants that senior staff may become aware they had

spoken about issues in their school, disquiet around questioning school policy and, tellingly, concerns that they were unclear whether or where cameras with sound-recording facilities were placed in their schools. In one school I visited, it emerged that a CCTV camera was located above the doorway to the staffroom.

It therefore became necessary to take steps not only to address these concerns but also to reassure potential participants by asking if they would like to suggest other venues where we could meet. Haynes and Macleod-Johnstone write of working with 'compassion' and suggested that this can be characterised by 'listening, laughter, intimacy, uncertainty, spontaneity, solidarity,' (Haynes & Macleod-Johnstone, 2017, p.3). As potential participants knew I was a schoolteacher, I felt more able to work toward creating a feeling of solidarity; I understood many of the concerns being expressed and was anxious to avoid or minimise any distress. It is insufficient 'to notice and recognise the distress and disturbance in another, or to show an empathy or sympathy' (Haynes & Macleod-Johnstone, 2017, p.5). Instead, what is required is 'action that has at its heart an effort to ease the troubling effect.' (ibid). On several occasions during this research, I have tried to do precisely that.

One participant requested that when I sent an email, I used the acronym 'CPD' (Continued Professional Development) as a subject line as they believed senior staff routinely monitored staff emails and felt such a title was sufficiently '*neutral*.' I was pleased that participants came from many different schools as this would make it much more difficult to identify an individual from their interviews. However, I have taken pains to anonymise participants and their comments and have not included any information relating to a specific area, school or individual.

Significant ethical issues may arise during any research, including questions around

informed consent, confidentiality and the potential consequences of the information shared (Cohen et al, 2007, p.382) and it is the researcher's responsibility to take steps in each of these areas to reduce risk of harm. I do not believe any individual or their workplace can be identified from this study.

Informed Consent

Whilst it is self-evident that participants should give their formal consent prior to taking part in research, there remains a question of whether such consent is given following an appropriate level of information and a meaningful understanding of how their contribution may be used and, indeed 'how identifiable and locatable' (Newby, 2014, p.370) they and their data may be. I explained verbally, and in written form at the front of the diaries, that this research would form part of a doctoral thesis and could later be used in articles submitted for publication. A further insert was prepared which required participants' signatures of consent; these were retained by me until the diary was returned and then only given to the participant to sign once we had discussed the nature of the study and what consent entailed. Several participants told me bluntly (and impatiently) that they were happy to sign consent without discussion, but I would not allow this and have experience as a union caseworker of members being too willing to agree to decisions that are not necessarily in their best interest. When completed, this study will be stored electronically by Plymouth University. I have been discussing with my supervisors ways in which participant anonymity could be further protected, including by submitting a complete version of this thesis for assessment but an edited version for publication online.

Confidentiality

As the diaries were physical documents rather than online blogs, there was a reduced risk of the information they contained being lost or inadvertently made accessible to a wider audience. The books were given by me to participants and returned by hand. From that point onward, they were either with me or stored at my home in a locked two-drawer filing cabinet purchased for that specific purpose. Likewise, interviews were recorded in a venue of the participant's choosing and onto physical cassette tapes. Both the cassettes, and the transcripts made later, were kept either with me during use or in the locked cabinet at my home.

Any potentially identifying information recorded by participants has not been included in this thesis and no identifying information (i.e., age, education sector, geographical information) of participants is included here.

Ameliorating Potential Consequences from Sharing Information

Having acted as a caseworker for my trade union, and in a safeguarding role in several schools, I was acutely aware of the possible risks to colleagues of discussing potentially contentious issues with a researcher.   Diaries were provided as physical hard-backed notebooks with a specific verbal and written exhortation that participants should:

Try not to include any details (i.e., names, dates or locations), which may make you, other individuals or a specific school able to be identified. In the event that any such details are included, I will ensure that the information is either unused or anonymised in my final report.
As these issues are relevant to many schools, it is unlikely that you would be able to be identified from your comments.

When recording my findings for this thesis it has been necessary to protect participants by omitting certain words or phrases that might have made them identifiable; in no case does this effect the meaning of the point they were making. Additionally, I deliberately approached colleagues in both primary and secondary schools and from three Local Authority areas in order both to generate a more meaningful sample and to substantially reduce the risk that participants could be identified.

A Meaningful Right to Withdraw

As Smith et al note, ensuring participants have a meaningful right to withdraw is an essential element of ethical conduct and such ethical practice 'also requires sustained reflection and review.'(Smith et al, 2012, p.53). The diaries included the statement that 'if you choose to return the diary to me as part of my research, you have the right to withdraw up until the point where I start to analyse the submitted data.' One participant exercised their right to withdraw in this way; having initially been very keen to take part and requesting a diary, they later returned a very full document recording their concerns and frustrations around surveillance in their workplace. I was pleased to receive this as it contained numerous concrete examples and informative descriptions of the participant's thoughts and feelings. However, a few weeks later they contacted me saying they now regretted recording such strident comments and were concerned that, no matter how careful I was, they would be identifiable. I therefore agreed to meet the participant to return the diary. When we met, (at their school, in an empty classroom after school time), I was concerned to note their level of agitation; this was characterised by rapid speech,

frequent apologies for wasting my time and fidgeting movement. These behaviours continued even after the diary had been returned to them and I grew increasingly concerned at the level of stress being displayed. In my daily work I have a pastoral role and I responded here as I would with a school student; we sat for a few moments as I tried to offer reassurances and then suggested we went to the office and shred the document together. Further apologies for taking up my time continued as we tore the diary and shredded the document together. It was interesting to note the physical change that came over the participant as the anxiety seemed to physically leave them. Over a cup of tea and a garibaldi biscuit in an empty staffroom, they explained how concerned they were regarding expressing views opposed to the school policy, discussed concerns around workplace bullying, and stated that several staff in similar situations were currently on long-term leave due to stress. It was interesting to note the lasting level of concern caused by voicing an opinion; on two occasions since, this individual has checked with me that we did indeed shred the document and sought reassurance that we had done so. I feel strongly that showing 'empathy or sympathy' (Haynes & Macleod- Johnstone, 2017, p.5) in this situation would have been wholly inadequate; action to address the 'troubling effect' (ibid) of such 'dangerous knowledge' (ibid. p.3) was required. This participant has continued to discuss these issues with me and maintained a strong interest in my research but was not willing to record their views on paper or as part of a formal interview.

Finally, I was aware this issue could generate, or open, feelings of anxiety and so ensured that all diaries had information on the second page about the free, confidential counselling available to anyone in the education sector provided by the Education Support Partnership and recommended by the teacher unions.

Diarists who did not complete an interview

It should be noted that six participants who had completed a diary did not go on to take part in an interview.

Several reasons help to explain this situation for individual participants, including difficulties with time commitments, individual personal issues and a specific unwillingness to be recorded, with one diarist commenting *'I can control what I write and make sure I write what I say – it isn't always so easy when you are speaking and being recorded!'*. Such a statement is suggestive that anxieties related to the topic of surveillance in schools may have influenced some participants to reconsider whether they wished to remain a part of this study. Concerns recorded in some diaries around school surveillance are indicative of a significant level of anxiety and may help to explain an unwillingness to take part in an interview to discuss these issues in more depth. A specific example raised in three of these diaries was the concern that senior management at their schools would look unfavourably toward criticism of their policies of surveillance in the workplace. It is therefore likely that disquiet around the specific questions of this study contributed to some of these six participants completing a diary but not taking part in an interview.

King, Horrocks & Brooks note that some, previously willing, participants, may fail to respond, 'to a message from you within the agreed or expected time-scale.' (King, Horrocks & Brooks 2019, p.129). They suggest sending reminders and that this should include 'a request to reply within a set time period.' (ibid).

However, several participants had spent a considerable amount of time completing their diaries and I was aware of the increased workload they were likely to be experiencing in their

workplace. Examples of situations of which I was aware included an Ofsted inspection, a Local Authority audit of the participant's department and a participant's school joining a new multi-academy trust which involved a full job evaluation of all staff. Whilst I had spoken with these six individuals and emailed to suggest a suitable time for an interview, I could or should have given additional reminders. However, I was not willing to chase participants beyond a certain point, particularly when I was aware of their specific circumstances, and did not feel that would have been ethical.

It is difficult to assess the potential ramifications of being unable to complete these six interviews. However, their diaries frequently contained rich and interested data and thus enabled the voices of these participants to be heard and to be included in this study. I feel that the eight interviews I was able to complete provided a useful and engaging additional source of data to the thirteen diaries. In addition, these were supported by the many comments and examples recorded in my own research journal.

This was a difficult judgement to make, and one diarist has since spoken with me and said they wished that I had '*nagged*' them to complete an interview as they had simply forgotten our original conversation and missed my reminder emails due to the normal pressures of work. Whilst it may have been possible to complete more interviews if I had pursued these six individuals further, I feel that my approach has been the most ethical and appropriate in the situation.

Validity

There are strong epistemological assumptions underpinning any discussion of validity. Kirk and Miller (1986) identify the possibility of two potential errors whenever we make a statement regarding validity; a Type 1 error is stating a proposition to be true when it is not whilst a Type 2 error is stating a proposition to be false when it is true, (Kirk & Miller, 1986, pp.29-30). Gary Marx has also warned of the equally unhelpful binary positions of technophobes and technophiles (Marx, 2016, p.232) in research of surveillance technologies.

Silverman (2014) suggested two forms of validation that may be appropriate for qualitative research; i) comparing findings generated from different methodologies to identify potential corroboration and ii) returning to the participants themselves toward the end of the study to establish whether they are willing to verify the findings, (Silverman, 2014, p.91). The opportunity for participants to check the transcript and analysis of their interview could be seen as 'an ethical and/or political requirement as much as a quality issue' (King & Horrocks, 2010, p.163) as it allows participants to check the transcription for accuracy, validate the analysis and gives them 'a stronger voice.' (ibid). However, whilst I value 'an ethical stance in which respondents retain ultimate control over how their stories are reported and interpreted,' (Gubrium & Holstein, 2001,p.644), I was struck by the warning that:

> 'Although giving the respondents the power to revoke or alter their testimony is laudable, researchers need to be aware of the anxiety they may help to create in respondents when they give those who have been interviewed the opportunity to see their words in print.' (Gubrium & Holstein, 2001, p.644).

I was already anxious to avoid creating additional workload and stress for colleagues volunteering to take part and decided not to routinely check transcripts and analysis with participants. On several occasions I sought to contact individuals to clarify potentially ambiguous material which emerged when reviewing the transcripts and this is detailed in later chapters.

Several participants asked to see a report my findings and it is also my intention to present a precis to members of my professional association to seek their views on the possible validity, credibility or accuracy of my findings. As Seidman has observed, if the interview process has allowed the interviewee to make sense of their own experiences 'to themselves as well as to the interviewer, then it has gone a long way toward validity.' (Seidman, 2013, p.27)

Positionality

As a middle-aged, working-class, white male schoolteacher I have a clear positionality within the schools I visit, and this will undoubtedly influence the research I am able to complete. This positionality raises questions around its influence upon me as researcher, the authority it may give and what it may enable me to see more clearly or, indeed, hide from my gaze. My positionality may affect the research process; as a middle-aged male, I may not always be able to pick up on the implications for women teachers regarding safety or sexual harassment. I feel strongly that being known to participants as a fellow schoolteacher, working in a similar setting, enables a greater openness when discussing nuanced issues relating to schools and allows easier discussion, as participants know I already understand many elements of context. However, I need to be aware that such

positionality may also lead me to mistakenly assume I understand the specific context of their individual school and experience. As a researcher working on an EdD, (but also an experienced schoolteacher), and as a teacher (but not a member of senior management), I feel that in this situation I am operating within an almost liminal space as my positionality is ill-defined as either neutral academic observer or colleague.

Working with my supervisors, I have come to realise that a dominant element of my positionality regarding this area of research is that my role both in the education system and as a student of Illich is slightly unusual. Both my focus of study and choice of theoretical framework have been dictated by my biography. Whilst I am not a Roman Catholic, I studied theology and philosophy for my degree and became a Religious Education teacher. My work as a teacher has largely been within pastoral and special educational needs (SEN) so has been more child-centred and markedly less focussed on the target-driven culture that dominates the work of most classroom teachers. Whilst I am a secondary school teacher, I have also undertaken transition work with primary schools. I was Chair of the local Standing Advisory Committee for Religious Education (SACRE) for several years and have served as a caseworker for my trade union; both roles involved regularly visiting other schools and discussions with teachers from a variety of educational settings. I am currently employed as a school Literacy Coordinator which involves teaching students with identified difficulties with literacy, social skills or managing their emotions. These roles and experiences have shaped both my interest and approach to this study. A greater focus on pastoral care, for both students and colleagues, has prompted many of my concerns around surveillance but has also influenced my methodological choices. I am acutely aware of the workload and stresses placed upon my colleagues and consistently aimed to ensure that those volunteering to assist me where

not put under any unnecessary pressure or expectations beyond what was required for my study. I was very conscious of the anxieties some teachers might feel regarding this topic of enquiry and endeavoured to ameliorate these issues as far as practicable. In common with Jacques Ellul, I have 'always based my reflections on personal experiences. From there I've tested out my ideas by trying to find arguments to contradict or fault them.' (Ellul & Troude-Chastenet, 2005, p.40).

Analysing the data

Many approaches to analysing the data were open to me. As Cohen et al have noted, qualitative research 'rapidly amasses huge amounts of data, and early analysis reduces the problem of data overload by selecting out significant features for future focus.' (Cohen et al., p.184).

I initially spend some time reading the diaries and listened to the interviews in order to make 'a frequency tally of the range of responses as a preliminary to coding classification.' (Cohen et al., p. 348). However, King, Horrocks & Brooks note that such activity always involves 'the researcher in making choices about what to include, what to discard, and how to interpret participants' words.' (King, Horrocks & Brooks, 2019, p.200). As I attempted to identify the key themes which emerged from what the participants said, I used King et al's definition that themes are those:

> '*recurrent and distinctive features of participants' accounts, characterising particular perceptions and / or experiences, which the researcher sees as relevant to the research question.*' (ibid. p.200).

Such a thematic analysis involves 'looking at patterns of themes across the data set as a whole, highlighting what interviewees have in common as well as how they differ.' (ibid.

p.201). King et al suggest a three-stage system of thematic analysis comprising of descriptive coding, interpretive coding and the identification of an overarching theme, (ibid., p.201) and this was the approach I selected to use.

I completed the three stages of coding and began to use this to analyse the data. However, it soon became clear that my first attempt at coding had been far too simplistic and identified themes which were too broad to capture the range and subtlety of the participants' concerns. Following discussion with my supervisors, and a re-reading of King et al., I completed a second analysis as detailed in appendix VI.

As I re-read the diaries, and listened afresh to the interviews, it became clear that the issues raised by participants were far more distinct and nuanced than had emerged in my initial attempt at coding. In the example included in Appendix VI, I originally focussed on participants' comments regarding emails and social media. Whilst participants did indeed speak of being concerned about surveillance via emails or social media, they also expressed similar concerns about CCTV in the staffroom and corridors. These issues went to the heart of my own research into surveillance studies and the questions around real and potential surveillance.

With real and potential surveillance as the interpretive code, it became clear that the overarching theme should be the question of privacy rather than electronic communication. I felt that this second attempt at coding was more effective in capturing the subtleties of the participants' words and allowing a more detailed analysis of what had been shared. Whilst my initial attempt at coding had been unsuccessful, it was a useful process to have undertaken as it highlighted to me the many differing ways in which material can potentially be analysed.

Having completed a second coding and analysis of the data, several key themes became apparent. In each case, the themes emerged from the data when I completed the second close

reading of the participants' words and attempted to look at the similarities between what was being described. Such emergent themes seemed to arise naturally when I began to listen to the subtleties of what was being said rather than trying to think of a theme and then impose it on the data. I feel that my second attempt at coding was more successful, and this identified four emergent themes of questions of privacy, the body and how people are made to feel physically, how we construct shared space and time, and questions around a sense of paranoia, to surface more naturally.

However, King et al. also note that 'you may on occasion choose to define a theme that only occurs in one or two cases' if 'defining it contributed something important to the analysis as a whole.' (King, Horrocks & Brooks, 2019, p. 209). Accordingly, I created a fifth theme focussing on the examples of resistance shared by participants. These had been small, fleeting examples given by several participants, and one more substantial episode which had been shared with me, yet I felt strongly that these instances of resistance were indeed an important contribution to my study and my interest in considering ways in which individuals could respond to surveillance practices. These themes are explored in the next chapter.

Conclusion

A number of questions and difficulties arose in developing a methodology for this project. These tensions were not easily resolved but I felt were reminiscent of the unsystematic approach which characterised Illich's own work.

A key concern which emerged when planning this study was a concern for the wellbeing and workload of potential participants. As a fellow schoolteacher, I was very aware of the workload of my colleagues and the many factors that can restrict available time still further. Whilst some individuals may have been willing, even keen, to take part, work commitments might prevent them from doing so or place them in a potentially difficult situation where they felt obligated to assist me yet did not have the time to do so without significant impact.

Throughout the planning and implementation of this project I aimed to be aware of this possibility and to ameliorate it as far as was practicable. Additionally, it emerged that many participants found the extent of surveillance practices in their workplaces to be a source of anxiety and concern. Several individuals who were initially keen to take part, found reflecting on these questions to be too troubling and withdrew, whilst six participants who completed a diary decided not to take part in a follow-up interview; it is possible that anxiety generated by the questions at the heart of this study contributed to this decision. In the next chapter I present the findings of my research based on the diary entries, interviews and my own research diary.
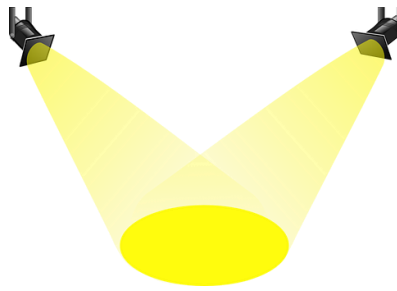
Chapter Five: <u>Findings</u>:

Talking (and listening) *about surveillance technologies inschools*

> *'Schools are like radars. Through them we can discern the nature of our society.'*
> (Christie, 2020, p.LIX).

<u>Introduction</u>

Having generated research data, I aimed to apply theory to the themes arising in order to explore how it could help address my main research question; how teachers feel the atmosphere and culture of schools are influenced by technologized surveillance tools.

Initially, I planned to generate data by seeking volunteers to complete research diaries and to then request they took part in an interview. However, things rarely run to plan; participants dropped out, several completed diaries yet declined an interview, and one participant was very keen to be interviewed but unwilling to commit their thoughts to paper. Two participants, (Kevin and Karim), agreed to take part only if they were interviewed together.

Information regarding the final set of participants is presented below:

Participant #	Pseudonym	Completed Diary	Took part in an interview.
1	Kevin	/	/
2	Angela	/	/
3	Karim	/	/
4	Maureen	/	N
5	Judy	/	N
6	Jack	/	/
7	Andre	/	N
8	Cameron	/	/
9	Alan	/	N
10	Jessica	/	N
11	Lucas	/	/
12	May	N	/
13	Leslie	/	/
14	Max	/	N

In presenting these findings, I tried several different ways to identify which participant was being quoted, (and whether this was from their diary or interview), and each generated its own difficulty. Following advice from my supervisors, I decided on an approach and in the table above individual participants are identified by a number assigned in the order they became involved (thus, Participant 1 was the first person to submit a completed diary, Participant 2 submitted their diary next and so on). The number denotes the individual participant whilst, for ease of clarity, they are referred to below using a pseudonym. Having considered several ways to generate random lists of names, I eventually decided to create pseudonyms by noting names from the cast lists of two films I had recently watched. As I have not been exploring issues of gender in this study, pseudonyms were assigned randomly to the participants and do not necessarily reflect the gender of the individual participant; this also provided an additional method to increase anonymity.

However, there are inevitably points where the gender of a participant was a relevant and important aspect and I note this when discussing specific issues.

Until drafting this chapter, I had not considered the problem of how to include quotations from diaries and interviews. It had initially seemed self-evident that I would simply quote from the documents. However, numerous issues emerged including where school-specific language was used that might help identify the individual, (i.e., naming specific software programmes used by that school), commenting on geographical features of their school building, or referring to school policies. I have tried hard to anonymise the quotes used; on occasions I have chosen to omit statements that were useful to my research but would have made the participant potentially identifiable. Whilst this was not helpful to my project, it was clearly the most ethical approach.

Several diarists included sketches. Where possible, I have added these below and cropped out the writing. On several occasions I have included sections of writing where the text is capitalised and unlikely to identify the participant. Some diarists underlined key words or added emphasis; in those instances, I have underlined or indicated in bold. Occasionally, I have slightly re-worded text to remove or change a word or phrase that may have enabled the participant to be identified. In no case has this altered the meaning of the comment recorded.

Themes emerging from the data.

Sketch on the first page of Karim's Diary outlining some of the issues he explored.

Reading and listening to the words of the participants, five broad areas emerged; questions of privacy, the body and how people are made to feel physically, how we construct shared space and time, questions around a sense of paranoia, and examples of resistance. Below, I have explored these emerging themes with reference to research into surveillance and Illich's writings.

Theme 1: Privacy

Lyon defines privacy, in a surveillance context, very broadly and as including 'issues of fairness and of social values such as the importance of relationships and democratic participation.' (Lyon, 2018, p.193). Questions of privacy, it's importance and erosions, appear repeatedly from participants, and became apparent at the very start of the project. In my research journal I noted with surprise that:

> *'almost everyone who has emailed me about the study insists we contact through private emails – 6 say bluntly they believe senior staff in school monitor their emails. (Surely not?)'*

Neither my discussions with participants, nor my own experience, lead me to believe senior staff routinely track and read staff emails. I have no reason to believe this and a particular reason to doubt it; the sheer volume of email communication generated daily in schools would surely be too much for anyone to effectively monitor. Nevertheless, the concerns of participants suggest that *actual* surveillance is unnecessary for creating situations where individuals feel discomforted and begin to modify their behaviour; the *potential* for surveillance is sufficient for this. Email communication can be seen as a tool of *potential* surveillance and is experienced as a surveillant technology by school staff. Whether email communication is being monitored or not, it's use in schools means the content of messages, and the exact time they were sent and responded to, is stored, and can be retrieved at a much later date, and for many potential reasons. The potential difficulties around privacy of communication and privacy of space were a cause for concern to many participants.

Privacy of space: *'a goldfish bowl.'*

My research journal records a visit to a newly rebuilt school. The staffroom was officially designated as a 'breakout area' and is difficult to describe clearly; it was *'sandwiched uncomfortably on the 2nd of 3 circular floors and opens onto a central well, it is a space marked by one outside wall only and opens directly into two corridors.'* Sitting there for a few minutes, I wrote that it felt like *'being in a goldfish bowl – you are looked at from all sides and all angles.'* Tables and chairs were available for staff to sit and work but anyone doing so could be seen (and overheard) from the whole floor and the corridors above, and below, as well as from people outside the building as there was a plate glass window instead of an outside wall. Unsurprisingly, the space was empty.

When I commented on this I was told laughingly *'you haven't seen anything yet!'* and taken to view the male staff toilets. There were two; one behind a door opening directly onto a student 'breakout area' (a large area of computers and soft seating where students could work in what would normally be regarded as a corridor), and the sound of flushing caused an immediate, and involuntary, turning of heads. The other staff toilet must surely have been an error by the builders; within a lockable room there was one urinal and a toilet bowl without any partition. The idea that two staff would use these facilities at the same time was bizarre yet also indicated the apparent lack of thought which had been given to the basic privacy of the staff. I was informed that the Headteacher had a separate toilet and shower area appending their office.

Privacy outside of school hours: '*not sure what is private time anymore'.*

Concerns around privacy and the boundaries of the school day were voiced by several participants. Prior to widespread use of these surveillant technologies, there were clear dividing lines to the school day and around interaction between staff, students, and parents. In her diary, Angela stated *'Facebook etc. Parents & students sharing views – staff are now in a popularity contest. Scary.'* Later she added that '*Very easy to criticise & stir up bad feeling. Concerned that students could even tape a comment and use it out of context.'* The feeling that every word uttered may – *potentially* - be recorded risks fundamentally changing the relationship between individuals and is a direct result of these surveillant technologies. The question is not whether Facebook and mobile 'phones are helpful or harmful but, in Illich's terms, that taken beyond their natural limits they risk becoming dangerously counter-productive (Illich 1973) as illustrated by Angela's experiences.

Initially, I thought I was misreading Maureen's diary. Three pages in a row start with an almost identical paragraph describing students receiving '*nasty abusive comments'* online. The different dates at the start of each paragraph however indicated that these, near identical, situations were different although all relate to the same type of incident where the social media '*report button did not work'*, the situation '*impacted on the students' mental health – already upset and under CAMHS*' and that therefore '*extra work was created by having to meet parent', 'extra support required for student'* and '*irresponsible use of social media causes upset for a large number of people, work for police, school, etc.'* I felt this repetition was important and suggested the situation was an ongoing experience for Maureen, indicating the iatrogenic harm that can be caused by potentially surveillant technologies where social media and mobile 'phones are creating problems which did not exist beforehand i.e., cyber bullying and taking photographs

without consent. Such threats to privacy and the ability to bully another student - *outside of school time* - and even within their own home, were not possible before the widespread availability of these surveillant technologies. For some children, home is no longer a safe space away from others who seek to hurt or harm, but simply another place where they can be targeted, now that technological tools and social media have erased many of the boundaries separating people. That individuals can be watched and receive unsolicited communications whilst in the *privacy* of their own homes was reminiscent of the '*telescreens*' in Orwell's Oceania (Orwell 2004); these are used for entertainment as well as propaganda and whilst the citizens are aware they are surveillance tools, it is the human eyes of the '*Thought Police*' (ibid) who watch from the screen, and so unclear which screens are being watched at any one time. It emerges in the novel that whilst the images broadcast on the telescreens can be switched off, they will continue to function as surveillance devices and record sound and images; something that becomes more troubling in the light of the Snowden revelations regarding the remote activation of mobile 'phones and computers (Lyon 2015).

Angela too wrote of her concerns at the potential *'cross-over between private and professional information / comments on Facebook – used to challenge staff even if fairly innocuous.'* A specific example was then provided '*" Well that was a rubbish day" type post. I know of an occasion where that caused an objection at work.'* In conversation, it appeared her disquiet arose from the thought *'that senior staff might actually spend their time reading my Facebook posts – just in case I say something they don't like . . . scary. . .'* and Angela was '*not sure what is private time anymore*,' or '*when and where my working life ends.*' These issues are complex but there are clear concerns around the erosion of divisions between working roles and private lives. Previously established

modes of behaviour generated through traditional practice have been disrupted by the emergence of modern technologies and clear ways to live with them have yet to develop. Prior to the wide-spread use of social media, a firm view would have been taken regarding an employer who spent time checking their employee's private lives and conversations outside of work time; since the introduction of these technological surveillance tools, it is now widely expected that prospective employers will look at a candidate's social media profile prior to a job interview.

However, Angela also wrote that:

> '*A colleague who was ill on Monday but had clearly had a very sociable weekend* (was then) *challenged about the validity of the illness. Fair comment but without the background info there would have been no cause for suspicion. Not saying that's a completely bad thing, being able to spot hangovers / Monday morning-itis etc. But it <u>is</u> different from in the past.'*

Angela concluded this diary entry by saying that: '*I know that it's just the world we live in, but "spin" has become such a feature it's scary.'* When I asked what was meant by '*spin*' in this context, I was told that:

> '*we don't talk so much face to face – everything is emailed, put online, posted on a webpage – that means that it can be looked at again later, in a different context – <u>**out**</u> of context – and everything seems to be about how things are presented. It isn't really about what happened or what was said – but how it <u>looks</u> now. I don't like it. Makes me feel uncomfortable.'*

This could be seen as an example of growing performativity where the words we use can be seen to define and construct an individual's identity. An observer can use an

individual's words *'in a different context'* to construct a different definition of their identity, potentially in problematic ways.

Whilst I work in a school, I was surprised to read so many comments expressing concern around questions of privacy due to a lack of private space, inadequate toilet facilities, cameras watching from the walls, students who may be recording conversations on their 'phone and emails which might be being monitored by senior staff. Not all schools run along such lines, and I have clearly been fortunate to work at several where these surveillance practices are either not in place or have been used sensitively and following extensive discussions with staff.

Tracking of staff and student activity online; *'now irrelevant.'*

Jack states that '*Tracking on school computers is needed but is now irrelevant I feel.'* This was because '*all pupils seem to have a phone in their pocket which they can access everything on, which is not tracked by schools.'*

I was surprised this was the only comment made regarding computer usage, for students and staff, being recorded and tracked, and wondered whether this had become totally normalised. Whilst several participants voiced concerns that emails may be read by management, only Jack noted that all online activity is able to be monitored in the same way. It was interesting to note that Jack was not critical of this but merely questioned how effective such an approach might be. When I asked whether it should be a concern if staff activities were tracked in this way, Jack said he felt people should '*be aware*' of that likelihood and that if they '*had nothing to hide they had nothing to worry about.'*

Taylor points out that, in school contexts, issues of privacy are 'perceptibly refracted,'

(Taylor, 2013, p.63) as it is legitimate for schools to know background information on both students and staff for reasons of safety.   Birnhack et all interviewed children from three Israeli schools and found that staff did not discuss the CCTV cameras with the students, leading to many false assumptions about the scope and capabilities of the devices (Birnhack et al 2018).   They also found evidence of a surprisingly high degree of privacy consciousness amongst children who had been 'born and raised in a digital world with its ubiquitous surveillance' (ibid p.204).   Many teachers have been working at schools whilst these changing levels of privacy have taken place, however many new teachers have attended schools like this themselves as children; it was interesting to note the prominent level of privacy consciousness amongst participants of all ages and future research could usefully compare levels of such privacy consciousness between teachers of differing levels of experience.

Lyon feels that from the late twentieth century, any boundaries between public and private have become 'thoroughly obscured' (Lyon, 1994, p.16), yet privacy remains vital as both a core value and as a support to democratic procedures, (Lyon, 2015, p.98); however, notions of what constitute 'public and private are contested,' (Lyon, 2018, p.44). Participants in this study may not have expressed clear definitions of, and arguments for, privacy but they were clear when they felt their own privacy, or that of others, was being invaded.
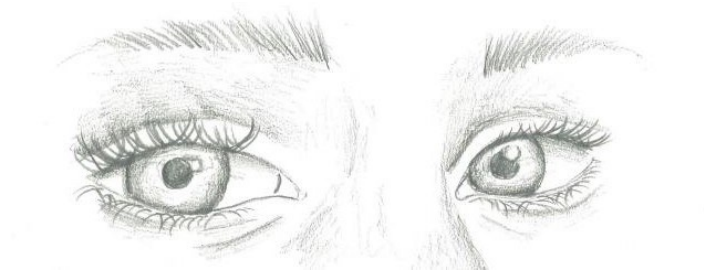
Sketch drawn by a colleague.

Theme 2: The body and how people are made to feel physically.

Page suggests that in contemporary schools 'teachers are engaged in self-surveillance' (Page, 2017,p.376), and that whilst traditional school surveillance practices involved senior staff formally observing teachers, the new situation is that teachers are:

> 'increasingly watching themselves and reporting what they do. Whether it is by uploading data on student performance or sharing good practice, collating their achievements on LinkedIn or tweeting their latest blog post, teachers willingly and voluntarily make themselves visible.' (ibid. p.376).

These surveillance approaches track and monitor individuals and seem to be located somewhere separate and disembodied: where precisely is the other end of the CCTV camera? Where is the information on a database physically located or my emails stored? Prior to these technologies, we could easily conceive of videotapes where CCTV footage was recorded and the shelves on which they were stored, equally we could imagine filing cabinet where letters had been carefully collected. More recent approaches cannot be

understood in this way; they are not located in a single physical space and are literally separate and disembodied from us and the physical world. This separation contributes to the deep sense of disquiet voiced by participants around technologies used to regulate and control as part of a culture of surveillance and suspicion. This disembodiment 'poses a deep threat to personal relationships because. . .it is only as suffering, embodied persons that we can turn and face one another.' (Illich, 2000, p.42). For Illich, we can only engage with the other as an embodied individual, not as the data-double created by these surveillant technologies.

Ball explored issues of body-surveillance and noted that the 'body itself has emerged as a legitimate surveillance target because of the immense level of detail and 'truth' about the person it is thought to provide.' (Ball, 2005, p.91). With fingerprinting a routine feature of many schools, I was surprised this was not raised by any participant. However, the physical experiences of working within broader surveillance practices was a recurring theme.

Cameron was concerned that '*the data and tracking we use* (regarding students) *is very influential.'* When asked to explain further, he said it:

> '*becomes quite. . . (2 second pause) . . .**overwhelming** - it tends to take over the way I think about the students sometimes (2 second pause) how well they are doing in terms of their data and how that will look to other people.'*

The use of the adjective '*overwhelming*' suggests something having a strong effect on an individual and toward which they are unsure how to respond. This sense of feeling physically *overwhelmed* echoes the idea of bodily *crushing* voiced by other participants,

(see below).

The unease caused by realising that he was sometimes looking at a student as a dataset, rather than a child, was evident as confident and fluid speech started to be broken by sudden pauses, and by the emphasis placed on the word '*overwhelming.*' He provided an example of a student absent from school due to a serious medical condition, however:

> '*that back story isn't recorded on the progress data base – their data looks very poor because of that and I find myself worrying a lot of the time that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the results are going to be like and what I need to do to make it look like I've done interventions that actually may not be that helpful to the child ultimately.*'

Cameron's statement was delivered with brief pauses for breath and at an increasing speed. Such breathless delivery, coupled with the phrase '*worrying a lot of the time*' gave a clear indication of how he felt physically regarding the issue of student progress; worried, anxious and under threat. The final comment about delivering interventions to '*make it look like*' they are doing something to address a perceived, rather than actual, problem is concerning when voiced by an experienced professional. Cameron was concerned the increasing use of technology to track, monitor and frame student progress was resulting in a situation where '*I think sometimes we think of them* (students) *more in terms of their data* (than as individual children).'

Kevin gave an example of staff training where teachers were told that classroom activities should only be presented as they appear in the exam:

> '*This strikes me as crushing creativity out of lessons at the expense of 'memorable'*

lessons that mean students retain information learned better, and also required intrinsic engagement with tasks that could become repetitive. There is no room in this model for engaging students who might not enjoy exam style activities.'

The adjective '*crushing*' used by Kevin provides a striking metaphor to describe the effect upon students and staff of such an approach being mandated in a school; the feeling of being crushed has echoes of the situation described earlier by Cameron. I would also suggest the phrase '*no room*' suggests a feeling of exclusion, of having no place within a new system.

Writing in 1971, Nils Christie commented on the provision of free meals for school children but noted that 'dignity is more important than food' and warned that ignoring this fact would lead to 'physical attendance, but mental absence.' (Christie, 2020, p.18). Christie's warning regarding school children may also apply to school staff. A lack of privacy, the sense of '*crushing*' creativity and a feeling that individuals are being reduced to '*data*' suggests a distinct lack of dignity for those within the school system. Perhaps mental absence is only a step away from true physical absence and this lack of dignity may link to the difficulties of teacher retention.

Data-doubles: '*What effect will it have if you start to think of yourself not as a full person but just as a set of grades?'*

Kevin raised concerns around excessive levels of testing, questioning whether '*data really needs to be recorded more than three times a year?'* and warning that whilst such monitoring and tracking procedures are '*useful to an extent,'* '*we must guard against becoming a slave to this and being driven solely by it.*' This could be read as a concern regarding workload. However, Kevin returned to this theme repeatedly, concluding that

'*A student should not be defined or pre-judge on a set of data on a screen!*' Kevin was concerned that students are judged, or even '*defined*', by their data and becoming increasingly perceived through their data double.

As more data accumulates about us, we become a 'calculable subject' (Raley, 2013, p.126) which creates significant questions around power and control in the workplace. Andre discussed the tracking of staff performance through appraisals and observations, noting that '*the incomplete nature of the data that is recorded. . . about staff performance worries me.*' Such discomfort relates to Illich's concerns regarding what is lost when trying to evaluate another human being using such incomplete data; the 'mathematization' or 'algorithmization' (Illich, 2000, p.42) of interpersonal interaction. Andre explained that: '*Detailed conversations are reduced to note form under specific headings, and the tick boxes / closed questions record whether your observation was adequate, or you have passed targets.*'

He gave a specific example where:

> '*looking at my recent observation notes, none of the positives that the observer seemed enthusiastic about have been recorded and many of the 'targets' to improve make me sound far more incompetent than I was led to believe during my verbal feedback.*'

I should state here, as objectively as is possible, that this individual has more than a decade of classroom experience and a strong record of achieving good grades with exam classes. That Andre used the term '*incompetent*' to describe how the process made him feel, says more about that procedure than his own ability.

'Does the fact that this has since been 'shared' with me on the system imply my agreement with the notes? I am concerned that this could be used against me if I become expensive or were to be seen as a "problem."'

Andre explained the school's lesson observation policy was ostensibly designed to be '*non- judgemental'*, '*supportive*' and '*developmental'*, yet approaches to evaluating staff using incomplete and problematic data had clearly resulted in Andre feeling worried, concerned and anxious in a way that was physically noticeable during the interview. Speaking on this topic, Andre's body language became distinctly less comfortable, and there were several lengthy pauses between sentences, frequent breaking of eye-contact and a noticeable quavering in his voice. Some studies have shown a far more positive engagement with performance management amongst teachers (Isherwood et al 2007). Other researchers have suggested that negative experiences of performance management processes mitigate effective outcomes of improving standards, (Ostroff & Bowen 2016), and that meaningful improvements in teaching commitment and performance are more likely to result when processes are well led by management (Audenaert et al 2019, Van Waeyenberg et al 2020).

Andre's concerns were not unusual amongst the participants. Max described the process of performance management making him feel '*reduced to a set of numbers in a table*,' and was concerned that '*we don't just do that to each other – we do this to the kids too*.' He was worried about the effect this may have on students and echoed Ilich's concerns around what we may be losing:

'when you ask most students how they are doing in a subject you just get told a number – 'I'm a level 6, or a level 7' - you don't get told what they enjoy or dislike. What effect will it have if you start to think of yourself. . . not as a full person but

just as a set of grades?'

Such phrasing is reminiscent of the differing approaches Pratt observed amongst primary school teachers toward attainment data (Pratt 2016). Pratt concluded that the work of a teacher is increasingly 'a performance', where 'assessment is not a benign activity for supporting pupils' learning' but has become a process for 'continuous justification of professional worth.' (Pratt, 2016, p.903). It is conceivable that Andre's pupils are aware of what is expected of them and give the answer they assume to be required; namely, the grade at which they are judged to be working and which is used for data tracking and performance management.

Student predicted grades generated by algorithms was touched upon by Kevin:

'What about the human fact that you might not be very good at one subject and better at another? But the computer says you should be achieving a certain grade and otherwise the teacher and you are going to be on the chopping block.'

The noun '*chopping block*' has sinister connotations not simply of execution, but of public, ritualised death, and is used here to convey a sense of how this teacher fears that they, and their students, would be made to feel if algorithmically generated targets were not met. This is a powerful metaphor to describe the sense of physical threat to which these approaches can give rise. Clarke was early to warn that complexities in the way data sets and algorithms are developed are such that 'few specialists are able to comprehend' (Clarke, 1991, p.511) them fully. If this is the case, it is unsurprising that teachers find the methodology behind these tools confusing and frustrating. However, Clarke went further and stated that it is 'arguably beyond the bounds of human capability to appreciate

the incompatibilities between data from different systems and to deal with the merged data with appropriate care' (ibid p.511). Steiner (2012) explored how increasingly complex tasks are now being undertaken by algorithms with little or no role for human judgement; the 2020 Ofqual algorithm might seem like a case in point.

Andre described writing reports based on inputting data only and stated, '*We are reliant on data that doesn't give a full picture*' and then explained that '*this makes me feel frustrated and as though I have done a disservice to my* (students).' The words chosen here are interesting as the sense of '*frustration*' experienced relates directly to concerns he may be performing a '*disservice*', literally a harmful act, to the students in his care. Such a concern was experienced as a physical feeling of frustration.

Angela expressed similar concerns around the value, and validity, of individual students' data:

> '*Targets keep being recalculated (how do you hit a moving target?) and the whole system is based on a linear progression which is clearly unrealistic.*'

Angela also noted concerns around report writing having to be recorded as a single figure on a spreadsheet as we:

> '*need a + / - option so we can add comments notes etc.*' as '*everybody's progress is different, especially if you try to represent both skills mastered and whether they're given of their best effort (and if they worked independently or had help).*'

Angela was concerned this method of evaluating student progress, using numerical data only, was both misleading and potentially damaging. Reducing a student's progress in a

specific topic, (and the myriad impacting factors including their attendance, amount of support received and level of engagement), to a single numerical value, was disingenuous and fundamentally changes the way we engage with others. Later, Angela voiced the question that seemed to occupy most participants; *'Do we value the kids for themselves or for what they can do for our progress figures...?'* This is surely the end point for the concerns raised by Illich and Ellul; when individuals are described and viewed as data sets, the sense of literal dis-*embodiment* and loss of the perceived fleshly body can easily result in them being translated from ends into means. People are not composed of numbers but 'summed up in the experience... (of flesh) …, in the experience of materiality,' (Illich, 2000, p.36).

Karim noted that '*Students are placed in front of us as DATA.'* The sketch below was then included:
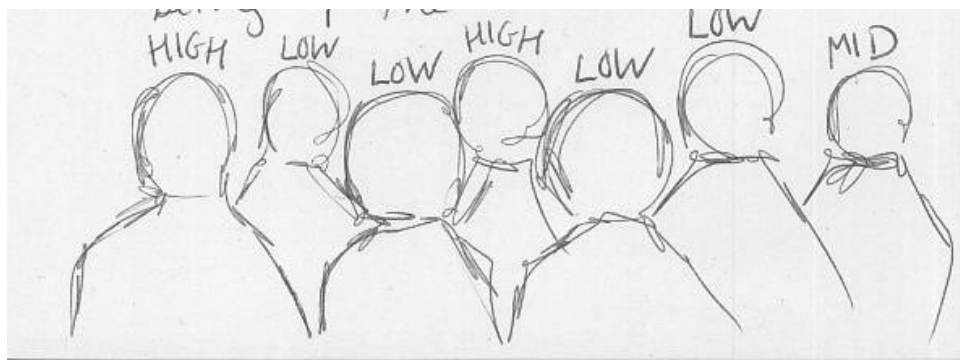
Sketch by Karim showing a class of students rendered 'faceless' like 'products on a production line.'

Karim continued underneath the sketch that '*It is important to consider the well-being of the student.'* Whilst this is a simple drawing, I found the representation of a class of children as faceless, almost formless beings differentiated solely by their data score to be rather unnerving. I commented that this depiction of students made me uneasy and was

told, with a malicious grin '*That was the point.*' Such practices are forms of surveillance; they are ways of tracking and monitoring staff, and children, originating from separate, and literally disembodied, packets of data on a spreadsheet, and used to regulate and control. Once an individual is recreated as a data-double within the school audit system, it is the information assigned to this data-double that is used to track and monitor performance and to decide on educational opportunities, access to specific classes and performance related pay. We become Raley's *calculable subjects* (Raley, 2013, p.126) and whether the information assigned to our data-double is correct or flawed, it can have significant consequences in the real world.

Impacts on student bodies: *'impassive and just observing'.*

Cameron wrote that; '*Conversations, doing, exploring, making, creating, building, playing are all alternatives to screen time!'*   The repeated concern that passively staring at a screen was replacing embodied engagement with others, objects and the physical environment, was voiced by many participants. This reflects Illich's deep concern at the effect of the rejection of the fleshly body in preference to a disembodied identity conceptualised in relation to technological approaches. A 'replacement of the dense, concretely situated flesh by an abstract construction,' (Illich & Cayley, 2005, p.41).

Lucas commented on his experiences of teaching Physical Education and the changes he had noticed: '*...every year the children seem to be less fit.'*   When I asked for more details, Lucas said:

> '*When they get out of breath, they often seem frightened – they're just not used to it – the fact that their breathing is faster, deeper and quicker – you can tell this is*

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a sensation they haven't experienced before.'

Not being a PE teacher, or remotely sporty, I was unsure precisely what was meant here and was told; '*They are able to move – exercise – but not to the point of exertion. (…) I've even had them say – panicking -* 'I can't breathe'. *I am worried.'* I was curious to know what Lucas felt to be the cause of this deterioration in physical coordination and fitness. He said '*The children don't seem to know how to play. Team skills, basic ball skills*, *it's all just* (held out his hand and mimed using a mobile 'phone).' It was clear that whilst Lucas felt the growth in technology was a key factor, the deterioration in traditional practices had an equally strong contribution as '*they can't -or don't play in the street or walk to the shops even. We've noticed that a lot of children are now very good at individual games but lack the social skills for team sports.'* I was unsure what was meant here and sought clarification; '*It's reading body language – they don't know what it looks like even. Their ability to problem-solve and come up with tactics – it's just not there.'* Lucas gave a specific example to illustrate the point:

> '*When in a game, verbally communicating* 'catch', *or* 'to you' (the children are) *often very shy with each other, uncomfortable even. But put them in front of a keyboard and there is no such issue – even to the point of being nasty.'*

The growth of surveillance technologies has unexpected consequences; here, schools' focus on potentially surveillant tools to monitor and track student engagement, has led to a reduction in their social and physical engagement with others and their environment, and a consequent deterioration in their skills in those areas. It is estimated that more than one fifth of children experience cyberbullying, (Hango 2015) and some suggest that

individuals who become cyberbullies may not have enacted bullying behaviours previously (Hemphill et al 2012, Low & Espelage 2013). Parris et al concluded that, whilst there were many positive aspects to children accessing technological tools, it also 'increases the potential for cyberbullying', (Parris et al, 2014, p.587). Lucas' experiences suggest the over-use of such potentially surveillant technologies may be having a damaging physical effect on children, and related psychological effects, as they become less familiar with the abilities and limitations of their own bodies and struggle to engage socially with their peers. The experience of children becoming distressed and panicked when they exert themselves physically, suggests a literal dis-embodiment, a dis-engagement and lack of awareness of their own physical identity, which is deeply concerning. Cyberbullying is often sexualized and by boys toward girls, (Wong et al 2018). Some surveillance of bodies is about policing sexuality and and controlling the bodies of girls, (O'Malley Olsen et al 2014). In the situation Lucas described, the situation was of girls being cyberbullied by other girls. However, the wider position is complex with some studies reporting that 'females experience higher rates of cyber victimization than males, while others report more frequent victimization among males, and still others have found no gender differences.' (Jackson et al, 2020, p.623).

The creation of data-doubles through the extensive use of surveillant technologies has an impact upon how we perceive others and, in turn, upon how we perceive ourselves. Our data-double is not us; it is an image of ourselves remade not in flesh but in numbers. Responding to another human being in the flesh is often felt to require a distinctly different set of social rules to those needed when responding to a data-double online. However, whether we are looking into another's eye, or the eye of their avatar, the flesh and blood person remains as the other partner in the dialogue. The growing need to

explicitly teach social skills and non-verbal communication also raises significant concerns about the impact of these increasingly ubiquitous technologies. Illich was uncertain how to address this problem and felt that 'the main service I still can render is to make people accept that we live in such a world.' (Illich & Cayley, 2005, p.222).

Regarding another aspect of technology, Kevin noted his concern that *'Children are less independent in their learning if everything is spoon fed to them from a screen'* and added the following sketch:

Sketch from Kevin's diary showing the computer screen watching just as individuals increasingly watch the screen. The 'keep watching' wording relates both ways and is indicative of both surveillance of the individual through technology and the individual's counter-surveillance of these processes.

When asked what this image meant, Kevin said that '*increasingly, students are told – trained – to just <u>watch</u>, just engage with, whatever is on the screen*.' Kevin was referring to lessons delivered through interactive whiteboards and PowerPoint presentations, but also social media, where he felt that they *'just seemed to watch – impassive and just observing – rather than active and engaged.'* For Kevin, the potentially surveillant approaches adopted in schools were having a clear effect on the physical behaviour and presence of the children as they seemed to become mere observers. I was interested to hear Kevin's concerns but would be wary of assuming that engagement with social media, particularly amongst the young, is anything other than extremely complex and nuanced.

Impacts of rewards and sanctions; *'like the whole world is crashing down'.*

Kevin and Karim discussed their school's online tool for recording rewards and sanctions. This commonly used programme allows points to be awarded which are presented as a pie chart showing positive marks in green and negative in red. The programme was accessible to staff, to students via an app, and to parents and carers. Kevin commented with a despairing tone about '*The whole thing with the red circle. . .*' When asked to elaborate he explained:

> '*It's very easy for us to look and know that when a child sees a green circle and they are a good child, and they know how to monitor their behaviour – that they will be happy with that. But it's harder for us to get into the shoes of a child who does find it harder to monitor their own behaviour, does play up and, to add to the fact that they already know they're not being perfect – when they log on they are then seeing this* (2 second pause) *full red circle* (3 second pause) *it doesn't take a genius to work out that they think* "I'm useless – I'm a waste of space – what's the point? My circle's completely red. I don't know how to behave. I'm not going to improve."'

The nature of this visual representation of their recorded behaviour *'is a permanent –*
staring you in the face – constantly - making them feel helpless, worthless. You can see it
happening actually.' When asked for an example, I was told that student '*body language*'
can change very quickly when viewing the app and the sense that they looked '*weighed*
down' if their circle has a lot of red. Again, the metaphor of the *crushing* of the physical
body is being evoked to try to express how these surveillance tools for recording and
tracking behaviour are affecting individuals.

Karim concurred and added that:

> '*even with the students who are always good and always have a green circle –*
> *if they get one red* (point) *it can be like the whole world is coming crashing*
> *down.'*

I asked for a specific example of this, and he said:

> '*a student in my class – always green circle – started to cry, got really upset*
> *about it because usually they are seeing their perfectly green circle – now it has a*
> *streak of red.'*

This description of a student looking as though the '*whole world*' was '*crashing down*'
on them was a powerful way to express the felt experience of a child when told they are
being described and evaluated using these surveillant tools.   No matter which primary
colours or typefaces are used in the software's design, the reduction of a complex human
being into a numerical value has impacts that are experienced physically, and not always
positively. In an interview, Illich noted that when doctors 'discovered many diagnostic

methods, they established a chart.' (Illich, 1989, p.10).   This chart came to represent the individual patient in the same way as a data double.   Having represented the patient as a chart, 'They treated the chart.' (ibid). Similarly, we are at risk of identifying children by their data double and planning teaching and intervention based on that information; of teaching the chart.

I queried the age of the student Karim described and was surprised to be told they were 15 years old. '*They can get quite emotionally attached to their circle actually*,' he said, '*a lot of them have it on their 'phones as well.'* This short statement suggests two important changes that have taken place in recent years; firstly, the increasing disembodiment of individuals as they are encouraged to conceptualise themselves in technological terms and identify with systems thinking ('*They can get quite emotionally attached to their circle'*) and that these methods are no longer able to be compartmentalised in one setting.   Additionally, it suggested infantilization, and made me consider whether Huxley's *Brave New World* may be a more appropriate metaphor than Orwell's *1984.*

Previously, individuals could easily maintain one identity at home and another in their school or workplace, however with the increasing ubiquity of technological communication devices, children can, (and are actively encouraged to), engage with these new tools to conceptualise themselves identically at all times and in all locations. Compartmentalisation of our distinct roles is becoming less feasible and entails conscious effort to assert and maintain.   An issue that emerged during the pandemic was that, contrary to expectations, a substantial number of students were either unable, or unwilling, to meaningfully access digital technology. It was estimated that at least 700,000 UK school students lacked access to computers (BBC News 2020) which suggests the popular

conception that all children carry smart devices is inaccurate. This may be due to a lack of the relevant equipment, or knowledge of how to use it, or the children may be choosing when and how to use their devices. I am aware of several students in my own classes who did not complete online work, ostensibly because they were unable to access online content, yet took an active role in the additional activities I emailed each week. That they chose to take part in tasks to make bird feeders and listen to readings of the Harry Potter books, yet did not engage with classwork, suggests some may have a significantly greater degree of control regarding their technology, and ability to make choices, than we might always appreciate. Children are not passive in relation to technology, and surveillance technologies, but have a degree of agency.

It was clear from participants that concerns about surveillant tools could be felt physically and there were significant worries that these approaches were altering how we conceive of ourselves and others. These were concerns Illich raised many decades ago and I feel it is prudent that we take time to consider his warnings.

Illich and the iatrogenic body

Ilich most extensively, and explicitly, explored issues of bodies in *Medical Nemesis* (1976). However, throughout 'his published work, the central importance he ascribes to the body appears only in an implicit, discrete, almost hidden way.' (Duden, 2002, p.220). In 1976, Illich's thesis was that expensive, technological medical interventions can create more harm than good for both the individual patient and society. Yet Duden explains that *Medical Nemesis* only 'acquires its full meaning when you understand its openness toward a history of the flesh.' (ibid. p.220). Although Illich 'rarely addressed the history

of the experienced embodied self explicitly, ruminations about it are embedded deep within his other texts.' (Duden, 2002, p.223). Illich was concerned that technological approaches beguile us into new ways of living and working at the expense of our humanity and ability to live in a self-reliant way; these themes are reflected in some of the concerns voiced by participants.

Illich engages with issues of the body apophatically and, when we appreciate this, we see throughout his writing concerns that technological ways of living are moving humans further away from traditional lives lived within sustainable limits. Illich spoke of the 'iatrogenic body' and was concerned that 'one of the hallmarks of modernity is the progressive replacement of the idea of the good by the idea of values,' (Illich & Cayley, 2005, p.167). The iatrogenic body is one that 'is *evaluated*' (italics in original) and 'Something very fundamental gets lost when I observe myself against values rather than' as a feeling human being (ibid). I feel these words were echoed by participants regarding the inadequacy of data sets to encapsulate all that is important about their students, and their concerns around what is lost when individuals are evaluated solely through such data.

During the 1990s, Illich focussed on exploring the fleshly aspects and potentialities of friendship and hospitality in the modern world. He worked to draw:

> 'attention to the epistemic reconfiguration of the person by its reduction to something to be managed, a life, a system amenable to control and new forms of normalization. The concrete person was thus being transformed into a resource...' (Duden, 2002, p.227).

Leslie observed than when she started teaching '*the Headteacher was precisely that*' a teacher who'*still taught classes*' but was also in overall charge of the school. Issues around pay, sickness and absence were all handled by '*the Head's secretary*'. Leslie contrasted this with the current situation where schools have Headteachers '*who rarely teach – and whole departments for HR. When did people – or staff – get reduced to Human Resources? Things to be managed*'. That sense of discomfort around the idea of people, both students and staff, being reduced to a set of data, of bodies becoming resources to be managed, was clear from most participants.

Sketch drawn by a colleague.

Theme 3: Construction of space and home

Schools: public spaces / private spaces

In her diary, Judy described her workplace as a '*school with security cameras everywhere*' and stated this can be '*intimidating*' as:

> '*even if you are not doing anything suspicious it can make you feel uncomfortable – just the fact that 'someone' is watching you. - BIG BROTHER.*'

She later stated that '*In city centres it can be quite reassuring to have cameras but not always acceptable in the workplace.*' Judy is drawing a clear distinction between the public space of the city centre and her workplace. In Illich's terms, the city centre is indeed a homogenous commercial space, yet Judy's school should be a vernacular space shaped by those who spend their days there; however, that vernacular space is under threat. There is a breakdown of 'discrete vernacular space...into non-discrete, in-discrete, homogenous, commercial space.' (Illich, 1986, pp.20-21).

The school where Judy worked was an older building with several sections built before the Second World War. The patterns of living and working there had been 'etched into stone by successive generations' (Illich, 1992i, p.55) however, in recent years considerable change had taken place. CCTV had been installed in corridors, room numbers had been changed and staff timetables had been altered so that few teachers had their own classroom, instead moving between rooms several times each day. When I visited, many

teachers were pulling small trolleys loaded with exercise books, texts books and boxes of stationary. Such a move away from convivial vernacular space toward creating a more homogenous area of indiscrete space had been warned about by Illich and I felt that I was looking at a concrete example of it when I visited Judy's school.

Leslie commented on the difficulty of sharing classrooms and having no meaningful private space for staff; '*It sounds silly, I know - but not even having somewhere to keep my coffee mug makes things really difficult*.' It is not simply the lack of space to store small yet important things, but this lack of shared space means the rituals of shared living - like morning break in the staffroom – are also made impossible.

CCTV: *'you end up doing this funny dance.'*

Staffrooms can be seen as liminal spaces in schools; a space for staff which neither students nor senior management usually enter. Angela commented on the oppressive nature of CCTV and added that as they '*don't have a staffroom we are left with corridors.'* This phrase was intriguing, and I queried precisely what she meant; it emerged that as CCTV (with microphones) was in many classrooms, and at specific points in the corridors, some staff had identified areas which were not under surveillance and chose to hold certain conversations there. '*It is really funny really - quite silly – you get to know which carpet tiles mark the edge of* (the camera's vision) *and you end up doing this funny dance to make sure you are in the right area* (out of the camera's field).' Whilst Angela laughed at this good humouredly, it was telling that people had noticed the presence of the cameras and the erosion of liminal space, sought to identify their field of scope and then made deliberate decisions to avoid their gaze. Such small, deliberate acts of resistance to these surveillance

tools was interesting to note. However, we should also be mindful of the 'chilling effect' (Lyon, 2018, p.59) suggested here with the implication that teachers are self-censoring conversations and avoiding certain social interactions within the field of the camera. Whilst such behaviour was noted by Taylor amongst school students (Taylor, 2013, p.55) it is interesting to hear of similar strategies employed by teachers.

It was clear that experience of surveillance technologies had generated a distinct atmosphere. Finn (2016) had previously noted that such a 'sense is visible' in a person's 'demeanour and bodily comportment and the tenor of their interactions with others.' (Finn, 2016, p.32). Several participants alluded to the uncomfortable feeling of being watched whilst at work and the unease it evoked. Andre wrote that '*I think that when people know they are being watched they feel guilty even when not doing anything wrong.*' Later he elaborated that '*Instead of feeling safe the opposite can be experienced as they worry that innocent actions can be misconstrued.*' Again, we see an example of tools becoming counterproductive when used beyond natural limits; cameras were installed at significant expense with the ostensible aim of ensuring staff felt more secure at work, yet the result was that some staff felt less confident, and the cameras had created a palpable sense of unease.

Karim summarised the view of most participants when writing: '*My personal feelings towards this is mixed. To a point I believe surveillance is good but only when made aware of what has been put in place and where.*' This reflects the idea that these tools have clear limits and when used beyond those natural limits may become counterproductive.

However, Jack's opinions ran contrary to the other participants, writing '*I think it is a good thing to have cameras in the corridor.*' Jack provided an example where she needed to speak with an older teenage student at the end of a lesson and:

> '*put distance between us with the door open.* (They) *then approached me, commented how small I was and made me feel uncomfortable. In this case, I would have preferred CCTV within the classroom to make me feel safe.*'

This was a clear example where a participant's gender is important for understanding the situation being described; here a female teacher was harassed by a male student, reminiscent of the situations described by Renold (Renold 2001), or as an example of the 'normative cruelties,' (Ringrose & Renold 2010), where 'everyday gender performances are frequently passed over by staff and pupils as 'natural'.' (ibid. p.573).

The difference CCTV could potentially have made was outlined as Jack explained:

> '*If the CCTV was in the classroom, I do not think* (the student's) *actions would have changed. However, it would have put myself in a stronger position if there was a false complaint and would have made me feel more safe in the classroom.*'

It is interesting to note that Jack's concern was to protect herself from potential false accusations; the incident itself had not been reported to senior staff and seems like an example of 'casual harassment' (Phipps et al, 2018, p.1).

For Jack, the CCTV was plainly being used in an appropriate way, but I was curious to know whether she felt there were limits outside of which these tools would become less helpful. In our interview, we explored this example more fully; *'Personally, I felt in an unsafe position. I felt uncomfortable. If something like CCTV was in there, I wouldn't have had the same issue. Wouldn't have felt the same way.'* Jack was quite clear that if the decision was hers to make, she '***would*** *install CCTV in all classrooms.'* However, a little later Jack added that she '*probably wouldn't install sound.'* This uncertainty

around the effectiveness of CCTV in reducing challenging behaviour reflects similar comments made by teachers in earlier studies, (Taylor, 2013, p.50).

Jack then gave an interesting example of a situation where students mistakenly thought a camera had been installed in the classroom. A new motion detector with flashing LED was noticed by students; '*One joked about it being a camera and automatically they were aware and started acting differently.*' Jack was clear that regarding CCTV in classrooms '*for me it is positive really,*' but felt that it should be visual only as '*some people think the CCTV is there to judge the teacher. Without the sound you can't really do that.*' During our discussion it emerged that Jack had some concerns herself around how footage could potentially be used '*Me personally - I don't want to feel I am being listened to and judged by cameras that record sound.*' It was clear that even for Jack, CCTV had clear limits beyond which it may pose a threat. For Jack, CCTV was useful to help monitor student behaviour but should not be used to make judgements regarding the performance of staff. However, I am unclear how such a situation would be possible: if poor performance or behaviour by staff are indeed captured in a recording it would seem unreasonable, indeed potentially unsafe, for school management not to respond to it. When such information is recorded and retained, potentially indefinitely, its use in making judgements is surely unavoidable.

The issue of sound was raised by other participants too; Andre expressed concern at '*video cameras with audio installed into corridors without telling staff.*' Later he added that '*I can understand the reasoning behind putting cameras in to record / deter bad behaviour from students, but it would have been courteous to tell staff first.*' Later, he wrote that:

'It makes me feel nervous about holding conversations in corridors in case, inadvertently, I say anything that isn't positive or in case audio could be edited / cut to present a specific viewpoint if someone had a particular purpose in mind.'

There are clear, and rather sinister, implications behind Andre's concerns here that go to the heart of discussions around surveillance tools: whose agenda do they serve? An additional question exists as a corollary: whether it is possible for individuals to gain power over these tools themselves. We have seen calls for meaningful consent and the opportunity to access the data recorded and stored in these systems and the right to challenge judgements made regarding them (Clarke 1994, Marx 2016). However, in my reading of Illich such an endeavour would be fruitless. Surveillance devices to watch, record and store our words and actions are tools of power and control and cannot be meaningfully democratised. For Illich we 'cannot help but renounce power.'(Illich, 2005, p.221).

Examples of cameras, with or without sound, being installed without staff being informed clearly relate to Illich's concerns around vernacular and convivial places being transformed into industrialised space.

Illich and the construction of space

In 1984, Illich was invited to give a lecture to the Dallas Institute of Humanities and Culture on plans to construct a mid-city lake. This 14-page historiography of water was later expanded to 92 pages and published as '*H2O and the Waters of Forgetfulness.*' (Illich 1986). Whilst both the original lecture and the book are primarily concerned with

the nature of water, Illich is clear that his thesis can 'also be applied to urban space.' (Illich, 1986, p.8). For Illich, 'Each culture shapes its own space,' and that space is a 'social creation which results from the all-embracing asymmetrical complementarity enshrined in each culture' (ibid). I feel his words could easily be applied to schools as cultural spaces.

During my research I visited a primary school at the invitation of a teacher. Whilst we spoke at length, the teacher said they were not willing to be recorded on tape but were happy for me to take notes of our conversation. The school was a new build, yet unlike so many I had visited, it felt like a space that was owned and shaped by those who spent their lives there. The Headteacher's office was part of the Reception area and she was easily accessible to the children, staff and visitors. The difference in atmosphere between this school and most I had visited was so clear it was almost tangible; I noted that '*children and staff seem comfortable in their own space*' and '*welcomed me in as a guest rather than stranger*.' I recorded that; '(Name of school) *feels comfortable. Safe. Familiar. Snug and reassuring atmosphere.*' I wondered how this school space could feel so different to others; it was a newly built structure that resembled many local schools in style and layout, the data available from Ofsted showed their intake of students was broadly like other local schools and their SATs (Statutory Assessment Tests) results were also in line with the local average. On two occasions during my visit, I was asked to wait in the Reception area; once when I first arrived, and a little later when a parent telephoned and the teacher asked me to wait whilst they took the call. During these times I was able to observe as a small child came to Reception in tears; at once, the Headteacher came out of their office to comfort the child. It was clear in many small acts and forms of words that the senior staff regarded the people in the school – children and staff – as of

paramount importance and that the Headteacher was committed to making the school a central focus for the local community. I noted there were '*photographs on walls showing; community meals, picnic, - many of these are clearly weekend and evening events*.' Whilst I had been tempted to conclude that the construction of the building and the types of furnishings played a major part in the generation of convivial space, this visit also impressed upon me the simple fact that it is the individual people themselves who inhabit these spaces and have the power to make them industrial, inhuman places or convivial spaces rooted in vernacular values. Inhabiting the environment in this way is to shape the physical space through our 'habitable traces,' (Illich, 1992, p.55) as 'dwelling is an activity that lies beyond the reach of the architect' (p.56), and only takes place when individuals live and create meaning in their environment; this school was not simply a workplace, it was a convivial space shaped by the individuals who dwelt there because 'to dwell is human.' (p.55). Whilst this was a relatively new school, I recorded that '*the previous Headteacher is invited back for prize days and concerts. Retired staff have prizes named after them. Memorial bench and tree in the playground record the name of a student who sadly died.*' For Illich, 'To dwell means to inhabit the traces left by one's own living, by which one always retraces the lives of one's ancestors.' (Illich, 1986, p.8). In small, yet meaningful, ways it was clear that this school was seeking to inhabit those traces of earlier staff and students, and to retrace those steps; the effect was clear and the atmosphere of the school refreshing and welcoming. I was not surprised that the school was oversubscribed with students and had no difficulty recruiting and retaining staff.

There are clear differences between such a convivial space and others which have been made unconvivial, partly by surveillance practices. Here the process of observation

worked two ways; the location of the Headteachers' office meant that they could be seen and overlook what was happening in their school, but because this was done in an embodied way, through the location of their, rather than the disembodiment of CCTV, they could also be seen physically. Here Rosen and Santesso's observations on the aggression and violence underpinning 'surveillance that hides in the shadows' (Rosen & Santesso, 2018, p.493) is reversed, as it is the embodied presence of the Headteacher, physically located in a central office space, who observes and is observed. The image of the Headteacher's ability to *potentially* watch due to the central location of their office can be contrasted with the *Santa-Cam* we saw in the introduction; such a comparison makes clear the difference generated by the physical embodiment of the Headteacher as opposed to the distanced and disembodied reification of Father Christmas suggested by that product.

Illich encouraged people to see what was happening around them so they could begin to reconstruct convivial life and 'accentuate the autonomous sphere, the sphere of personal and community relations that can fill up one's life,' (Garrigos, 2002, p.121). Perhaps new build schools can indeed become more convivial spaces and that what is required is merely the 'imagination and daring to take on these institutions so that rather than suffocating the vernacular world, they might even promote it.' (ibid)

Sketch drawn by a colleague.

Theme 4: *Dangerous knowledge*: A sense of 'paranoia'

Angela wrote:

> '*This may make me sound paranoid, but I can't help but wonder whether anybody keeps an eye out for "subversive" key words & looks in on emails the same way dodgy internet searches are (quite rightly) monitored.*'

The concern that comments she types may be both surveilled, and viewed as potentially *'subversive'* is striking; the adjective used by Angela is evocative of dissidence, sabotage and renegade activities, yet is being used here by someone who works with children to describe how she feels her managers may *potentially* view her.

I was becoming increasingly uncomfortable with some of the language used regarding CCTV andstarted to note the specific terms:

Words used by participants when describing CCTV in school.
watched
checked
followed
beneficial
unsettling
uncertainty
Paranoid / paranoia
monitoring
Self-conscious
supportive
angry
underhand
negative
insecure
panic
Big Brother
spy
troublesome
haunting
guilt
alarming
secure
overwhelming
normal

Whilst positive terms appear in this list, the more negative ones make uncomfortable reading and suggest a damaging impact upon workers in these environments: the frequency of terms including *'paranoia', 'insecure'* and *'panic'* raise difficult questions and may be related to poor staff retention rates in English schools, (House of Commons Library 2019). Whether used as an adjective or a noun, '*secure*' has connotations of safety, yet might counter-productively help to create the opposite. Electronic swipe cards

to enter schools, complex passwords for computers and CCTV throughout workplaces imply prominent levels of security are necessary due to (unspecified) threats; paradoxically, such a focus on security may lead to a greater sense of *insecurity*.

Haynes and Macleod-Johnstone write that the 'performance of the professional is often characterised by a suppression or avoidance of difficult emotions' (Haynes & Macleod-Johnstone, 2017, p.8). However, during my interviews discussing surveillant technologies, the 'dispassionate side-stepping' that is possible during a normal working day was not practicable; it was unsettling to hear the 'distress and disturbance' (ibid. p.5) that lay beneath the surface for seemingly calm professionals. Poor sleep patterns, anxiety and almost obsessional checking of emails, indicate the 'troubling effect' (ibid. p.5) of the 'dangerous knowledge' (ibid p.3) regarding the extent of surveillance in schools.

Andre began his diary stating:

> *'Thinking about this topic can be overwhelming – The deeper I delve into it the more I want to I bury my head in the sand. On the surface I have no issues with surveillance (I am not doing anything wrong) but the further implications alarm me.'*

Many participants used the word '*paranoia / paranoid'* to describe their feelings, and some views changed and developed over the course of the diaries. For Haynes and Macleod-Johnstone, some topics can 'present a sense of danger', where 'certain ideas are difficult to communicate', and the 'subject matter is sensitive or taboo' then 'we may experience unexpected emotions,' (Haynes & Macleod-Johnstone, 2017, p.3). Exploring the extent and implications of surveillance was undoubtedly generating a feeling of danger for some.

However, the issue was not simply around knowing you are under observation but the *potential* of being under surveillance; not knowing whether surveillance was taking place (or not) was a key cause of concern. Andre explained that:

> '*knowing that you could be watched in the most innocuous circumstances can lead to paranoia – you imagine being watched even when highly unlikely or read into things that are in most likelihood completely innocent.*'

Rosen and Santesso have noted the irony that 'surveillance that announces itself can feel less aggressive or violent than a surveillance that hides in the shadows.' (Rosen & Santesso, 2018, p.493). The lack of clarity around how, or indeed whether, these *potentially* surveillant technologies are being used for surveillance, generates such feelings of uncertainly and, consequently, unease and suspicion. Leaton Gray's comments on biometrics in schools could equally apply to all potentially surveillant technologies when she states that it is essential they are 'grounded in an essentially fair, balanced and humane system' and reminds us that a central tenet there is the 'need for trust.' (Leaton Grey, 2018, p.420).

Email as a surveillant technology

Emails are not simply a way of communicating. Email records the precise time a message is sent and received, and full records are retained by the sender, receiver and administrators. Such levels of monitoring would be inconceivable in most other forms of workplace communication and come with costs as well as benefits. Email is clearly a (*potentially*) surveillant technology and such workplace surveillance blurs what is meant

by the *workplace* and the *working day* as meaningful concepts. Neither my own experience nor my reading of the literature had led me to consider email as a surveillance tool. However, listening to participants led me to question how email has made many teachers' homes part of their workplace and through which all interactions are recorded and tracked.

Angela listed examples for several pages including '*students emailing for help with homework,*' and '*parents emailing & expecting a prompt response – demanding I justify decisions.*' The length to which Angela commented on emails suggested a significant level of anxiety and a feeling that expectations were unreasonable and unmanageable. It is worth noting that all the emails referred to here were received when she was teaching, or after having officially finished work for the day. These examples may be the inevitable result of a useful tool, (email), being taken beyond its natural limits, becoming radically counterproductive, and generating feelings of disquiet, anxiety and unease.

Kevin complained of receiving '*a barrage of emails constantly*' and explained he had received '*emails from parents at 9 o'clock at night and expecting a quick reply.*' When asked to describe how it felt, I was told that '*a couple of times I have had a full-on meltdown – from overload. Feeling overwhelmed.*' It emerged that the pressure felt had a two-fold source; an obligation to resolve the parental query as swiftly as possible and a knowledge that management could potentially track the content, and time sequence, of these communications. The pressure came from the feeling that there was '*only a short window with some parents*' before they would contact senior staff instead or may have '*already bcc'd them in*' which created an additional level of stress. That these experiences were a regular element of the role, (happening '*constantly*') and outside of working hours, are important elements. There is an additional distinction that needs to

be drawn out here; these stresses are not solely the result of the additional workload made possible by email. If that were the case, there would be no clear link to the question of surveillance. However, as several participants noted, it is the knowledge that these communications are being recorded and stored in terms or both content and the times emails were sent, received, opened and responded to, which generated concern.

Angela described a comparable situation; when asked to explain how she felt, there was a four second pause, a long sigh and the comment '*sleepless nights.*' She described needing to keep on top of emails, so the volume did not become wholly unmanageable; '*I check school emails at least once every morning before leaving for work.*' When asked what time she meant, she said '*I check at 7am in the morning before coming into work.*' Kevin made a similar observation, after a lengthy pause and deep intake of breath, that '*If I'm honest, I reckon I check mine in the evening and in the morning before work at least 10 times - that's **everyday***' (said with emphasis). These comments suggest that email is eroding divisions between work and home, public and private, for some teachers. The felt need to check work emails '*at least 10 times*' in the morning before leaving for work, suggests a degree of compulsion and does not appear to be a healthy, or sustainable, approach.

In my research diary I noted a colleague explaining that a birthday present now seemed like a '*curse*'; this was a smartwatch that enabled emails to be accessed. When I queried this, they said they realised the '*world had gone mad when I was replying to an email from a parent whilst I was in the shower this morning. How did we get here?*' These changing working practices have resulted directly from the nature of new surveillant tools; before email, it would have been inconceivable for teachers to routinely write to, or telephone parents, before leaving for work in the morning. Equally, few parents would

have expected to be able to telephone teachers at home before they left for work. Such changes are linked to new surveillant technologies and are clearly affecting the emotional health of participants. It is the capacity of such tools to record, track and monitor our interactions, that gives them their surveillant nature and power.

Alan wrote that email means '*people can get hold of you all the time*' whilst Lucas wondered whether they were '*putting additional strain / stress on members of staff?*' Kevin wrote:

> '*Schools were always busy places but now the constant barrage of emails (20+ every time I log on) can feel like you are constantly drowning. You are expected to keep up with them constantly. Sometimes I cannot have read an email from 30 minutes previous and be asked "Didn't you see my email?"*'

This is followed by a single, elongated, word:
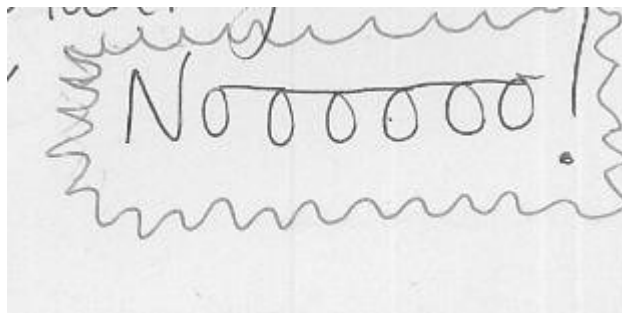
It is not possible to describe this single word in Kevin's diary in a form more eloquent than the original. We should note that emphasis is added in four distinct ways; the large capital letter at the start, the second letter being repeated five times, the strong exclamation mark at the end and the jagged-edged box that surrounds the word. Frustration and annoyance are recorded powerfully here. It is not solely the *volume* of email communication being received (a question of workload) that is the main issue here; it is the surveillant aspect of electronic communication, (recording the time messages are

received, how long it takes to respond and the retention of all interactions) which gives rise to levels of stress Kevin characterised as a '*barrage*' leading to a feeling of '*drowning*'.

The repeated use of the adjective '*stress*' by participants when describing email, accompanied by words like '*strain*' and '*concerned*', further emphasises the negative aspects of this technology and how they are being physically felt by teachers. The adjective '*drowning*' and the noun '*barrage*' are strikingly violent images, and these word choices create a sense of the bodily experience of such situations and the fleshly ways in which such emotions are encountered. It links us back to Illich's work on the nature of water where the 'deep ambiguity' of water renders it a 'shifting mirror' and a powerful 'vehicle for metaphors,' (Illich, 1986, p.24). Kevin's choice of the word '*drowning*' has uncomfortable connotations of violent death, smothering, desperation and struggling for breath. It is an uncomfortable allusion.

CCTV: *'an unsettling feeling'*

In her diary, Angela observed dryly; *'Staff wellbeing – interesting phrase (just saying!)'* and added *'I think that many employers – not just schools – feel staff are a disposable asset to be pushed as far as possible until they break and then traded in.'*

It is worrying to note this concern about her employers' intentions being stated so baldly. It suggests a deep level of disquiet and insecurity. Kevin expressed similar concerns around the intentions of senior staff; *'I don't like the fact that the cameras have sound.'*

He explained that:

'part of being a teacher, and part of being able to survive being a teacher, is that you have to be able to off-load, and you have to be able to whinge, moan, get rid of your stress, talk to your colleagues - and you should be able to do that without the fear of being recorded.'

I queried how aware he was of CCTV and of consciously thinking about the potential of being recorded; he replied that: '*I do actually think that regularly – when I'm in offices and rooms, "I hope I'm not being recorded."*' Kevin stated his view that this was a form of '*paranoia*' and:

'that's a paranoia that comes from the birth of this Big Brother – "you will be monitored constantly" way of working'.

References to Orwell were frequently invoked by participants; '*Big Brother*' has powerful negative connotations and has entered the lexicon to describe negative surveillance practices. However, the nature of Big Brother in Orwell's novel is more nuanced as it is never explicitly stated whether he is a real person or only a symbol for the totalitarian regime. The phrase 'Big Brother' might not always be used in an Orwellian way either; the name was utilised for a popular television series, based on the constant surveillance of participants, that has been aired in many countries. I was curious to know how Kevin was using these words. It emerged that Kevin had not read Orwell's book until earlier the previous year when it had been a set text in his school; when alluding to *'Big Brother'* in our interview, he was clear about the dominating and oppressive nature of the character

and the symbolic issues raised by this omnipresent face, paradoxically representing a face-less bureaucracy. When I commented that the words had powerfully negative connotations, there was a pause before Kevin said '*Yes - that's why I used it.*'

Marx questioned the 'practical, psychological and social implications of living in a society of uncertainty, fear, doubt, cynicism and paranoia' (Marx, 2016, p.312) and I feel we should equally question the long-term implications for school staff working within an environment they feel is making them '*paranoid.*' It is possible such a situation could help explain the difficulty with recruitment and retention in the profession. The 'emotional disturbances' and 'sense of danger' (Haynes & Macleod-Johnstone, 2017, p.3) emerging with the realisation and articulation that much of our behaviour during the working day is being recorded and tracked may lead us to wonder, with Marx, whether of the many possible responses open to us 'the paranoid (is) the one with the facts?' (Marx, 2016, p.312).

In her interview, Angela remarked on CCTV cameras and stated that '*I think they are useful in teaching spaces*'. She recounted two situations; in one, a student had vandalised equipment and was identified by CCTV and in the other, some students had behaved badly and then made a false accusation against a member of staff – this was disproved, as CCTV was in the classroom. However, for Angela:

> '*there is an element of trust required wherever there is CCTV because if we are to be recorded, we need to <u>know</u> we are being recorded. We need to <u>know</u> what purpose that is used for and it does feel a little bit "Big Brother", have we said something we shouldn't? Have we been a little unguarded in a conversation? Because in the past I have been called in to justify myself. . .*'

Angela then recounted this difficult conversation with management before stating:

'I think we are entitled to our opinions. That's an uneasy feeling. I don't like to have to be guarded. I like to have discussions. And as we don't have a staffroom we are left with corridors.'

Unfortunately, I did not query Angela's use of the phrase '*Big Brother*' during our interview and have been unable to contact her since. It was striking that this reference to Orwell appeared yet again, and from its context in a discussion around Angela feeling the need to be '*guarded*' and the requirement to '*justify*' her views to those in authority in her workplace, we can tentatively assume it was being used in an Orwellian sense. However, it would have been interesting to ascertain precisely how the phrase was intended to be understood and I regret missing the opportunity to raise this and explore exactly what she meant. The question of *'trust'* goes to the heart of this discussion. For surveillance to be as supportive and safe as those who install it frequently aver, then authentic trust must be at the centre of the discussion for all involved.

This lack of trust around fair treatment by management was clearly causing concern to Angela: '*When my brain is quiet, I have to think it through and put it to bed. It's not ideal.*' It was clear the presence of CCTV was a significant concern: '*If I did say something and I thought I'd been caught on tape and potentially it was troublesome it would come back and haunt me a little bit.*'

When asked to explain what she meant by this she said:

'I'm lying in bed, and just before I go to sleep, and I'll suddenly think 'goodness me – that happened.' And I'm back there (3 second pause). *I'm flushed. I feel uncomfortable. I feel self-conscious, I feel "what have you done?" "What are*

the consequences going to be?" "You've screwed up" – that sort of feeling. . .'

When I asked if Angela was comfortable discussing this with me and whether she wanted to pause the interview, she said it was helpful to talk and she felt better being '*able to put this into words*' to '*someone who will listen.*' We should note that these themes of guilt and disquiet, and frequent references to Orwell*,* are being made in reference to schools, rather than custodial settings.

Sketch included by Karim alongside comments (below) regarding CCTV.

CCTV *'people should be a bit more relaxed about it.'*

Several participants presented less negative viewpoints. Karim wrote that '*Surveillance within a school is beneficial to a point, the monitoring of vandalism and challenging*

behaviours can be supportive when dealing with such incidents.' However, he went on to state that:

> *'being aware of individual rights is vital. The unknown of being 'watched', 'checked' and 'followed' can be an unsettling feeling, creating an unsettled and disturbed environment for those involved.'*

Karim returned to this point again later stating, *'Not being aware of surveillance around the school creates uncertainty.'* Karim also included a sketch of a CCTV camera (above) because *'someone is always watching!'*

Jack wrote bluntly *'I think it is now the norm for CCTV, tracking etc within school. I do think that people should be a bit more relaxed about it all.'* Maureen recorded a situation where a student *'became frustrated and shouted a comment'.* When challenged, the *'student felt* (they) *had said the comment quietly'* however *'due to CCTV the student was able to view how* (they) *had spoken and was immediately apologetic.'* It is interesting to note that Maureen then states; *'technology here was helpful but on the other hand, I feel I do not want to speak* (in certain parts of the school) *due to wondering who will be listening?'* Not all participants felt undermined by CCTV and some could identify positive aspects of their role in the workplace. For Lyon, paranoia is a two-fold problem; it makes us blind to the more nuanced nature of surveillance that 'enables and empowers as well as constrains and limits action.' (Lyon, 1994, p.218). It would be all too easy to allow a sense of *paranoia* to restrict our ability to apprehend the many useful aspects of these approaches. However, regarding the participants in this study, the majority held deep suspicions regarding CCTV and email in schools.

When schools can only be accessed via a guarded entrance, those within are not permitted

to leave until set times, and use extensive surveillance equipment, we may question whether a place of learning is the most apposite metaphor for contemporary schools. Nils Christie warned that 'If an institution is built primarily for the purpose of storage and defines students as its lowest and formally speaking most powerless participants, a prison is the obvious analogy'; he suggested that we 'familiarize ourselves with the sociology of prisons rather than obscuring the similarities...' (Christie, 2020, p.133). Security is essential for the protection of the children (and staff) within, yet the growing similarities between schools and prisons should not be overlooked. Nor the sense of disquiet such similarities provokes.

Paranoia: Function creep, Trust & Mistrust

Perry-Hazan and Birnhak (2019) interviewed Israeli teachers regarding CCTV and identified an issue of *function creep* where cameras initially introduced to monitor who accessed the school site were later used to identify student misbehaviour, before then focussing on teachers, (Perry-Hazan& Birnhack 2019). Similar instances of function creep have been noted by other researchers including Hope (2009 & 2018), and Lyon (2018). This idea has strong echoes of Ellul's idea of technology 'perpetuating itself.' (Marx, 2016, p.133). The Israeli study concluded that these practices can 'demoralize teachers and induce practices of resistance.' (Perry-Hazan & Birnhack, 2019, p.202).

Marx (2016) identifies meaningful consent and a meaningful right of reply as central to any discussion of the valid use of surveillance technologies. Cameron was aware that CCTV cameras had been installed in his school and was unhappy as '*I feel we should be told if there is surveillance in our workplace.*' The sense of unease was noted again when I

asked about his specific concerns:

> *'I feel like if someone wanted to get rid of me – or make a case for putting me on capability – they would not have a problem because they could find something if they wanted to* (if all lessons and interactions are recorded) *which makes me feel very uncomfortable* (4 second pause) *quite negative and insecure and quite unconfident in my. . .'*

At this, Cameron trailed off and clearly did not want to continue discussing this theme. Technology was not the direct cause of concern for Cameron, but how the surveillance information gleaned may be used by a management that was not trusted to act fairly. Andre commented that:

> *'On reflection, I think this* (…) *makes me angry because we are not informed and because we can't know that the surveillance will be used to protect you and not for more underhand reasons.'*

It would be intriguing to explore whether surveillance technologies would be described in such negative terms in a workplace with a strong sense of trust between management and the staff; however, it may also be that workplaces with such a strong relationship between staff would not require these technologies to be installed in the first place. Trust works in two directions; 'we give trust to others, and we are said to be *trusting*, (or not), and we ourselves are the recipients of the trust of others, and are said to be *trustworthy*, (or not).' (Seldon, 2009, p.3). Perhaps in contemporary schools the reverse is taking place; staff are implicitly viewed as *untrustworthy* through the extensive use of surveillance and monitoring and, in turn, are developing a *distrust* of those behind the systems of surveillance and accountability.

Kevin wrote that CCTV on the school site was *'important'* but then adds:

> '. . . however, I sometimes feel spied upon when I am having a chat with colleagues. It is important that teachers feel they have a chance to get things off their chest / have a whinge and a moan etc! And they have SOUND!!'

The capitalisation of the last word, and two exclamation marks, highlight the incredulity felt by many schoolteachers that their workplaces now have cameras recording both images and sound. The additional uncertainty around how data is stored, who has access to it and how it may be used, provides further grounds for distrust. When asked how things could be improved, Kevin suggested, *'I think they should only have film ones in schools – I don't mind film cameras in school actually.'* For Kevin, as with Angela, the issue was not about being watched but listened to:

> 'If I am somewhere where I'm just having a chat, where I probably <u>am</u> whinging a bit or I'm just trying to off-load, or I feel stressed and think the way to deal with it is just to talk to other people – in the past it wouldn't have crossed my mind – I now taper and I curb what I say because I'm paranoid. . .'

This 'chilling effect' (Lyon, 2018, p.61) whereby the presence of potential surveillance gives rise to the *tapering* and *curbing* of normal behaviour, voiced by Kevin above, is another worrying example of the effect of such approaches. At this point, Kevin had been speaking increasing rapidly but now paused at the word '*paranoid*' and I queried whether he felt this was an accurate word to use; he replied: '*I didn't use to be paranoid when I started teaching but now* (3 second pause) *you don't know who is recording you*.' I noted Kevin had repeated the word '*paranoid*' on several occasions and went back once again to the diaries and recordings; I was surprised to note that seven of the participants had

used this term and that nine participants had expressed related feelings of unease that surveillance tools in their workplace could be used against them.

I found this disconcerting and feel it presents only two possibilities. Firstly, these may indeed be examples of paranoid concerns; if such feelings are experienced despite there being no real basis for them, significant questions arise regarding the health and capability of a member of staff. Alternatively, such fears and anxieties may be rooted in valid concerns around the behaviour of employers; this leads to important questions around the extent and impact of surveillance in schools. Surveillance approaches are inherently linked to questions of power and without some form of democratic accountability 'power becomes a source of great uncertainty.' (Bauman & Lyon, 2013, p.5). However else such approaches are managed in schools, I have found no evidence that it is democratic or transparent. Additional research is required in this key area.

Marx regards a sense of paranoia as occurring after 'the momentary shock of learning that personal borders have been crossed', and that following such a 'violation of trust and new uncertainties', it may be 'natural to wonder if it will happen again.' (Marx, 2016, p.237). For Holm, paranoia 'as a theme, an undefined noun, a vague proposition – haunts the academic study of surveillance.' (Holm, 2009, p.36). For a participant to suggest their concerns are grounded in *paranoia* is a strong statement, heavy with a sense their fears may be groundless, their conclusions mistaken and with clear links to psychological disturbance. Such statements are concerning but, in the light of the participants' experiences above, certainly not 'inexplicable.' (Lyon, 1994, p.219). Indeed, George Marcus suggested that, in certain circumstances, paranoia was not only appropriate, but an entirely rational response, (Marcus 1999) to social or political conditions. McQuillan (2016) used Illich's conception of convivial tools to explore the issue of paranoia around

algorithms. He believed that as Illich's work was around the nature of tools, 'his thinking speaks directly to the problems of algorithmic prediction' (McQuillan, 2016, p.9). Perhaps, post-Snowden, where we know our movements and communications are tracked by camera and smartphone, a degree of paranoia may be a rational response. Holm concludes that an engagement with paranoia as a 'theoretical construct allows us to understand how surveillance may lead to non-normal or resistant behaviours beyond the purview of expected social interaction and cultural expression (Holm, 2009, p.47). Whilst Marx wondered whether we are approaching a point where a division between 'paranoia and reality' ceases 'to be meaningful.' (Marx, 2016, p.312)

Writing about Panopticon surveillance, Lyon concluded that 'at best fear, at worst paranoia is engendered' yet 'paranoia will patently not do as a response to contemporary surveillance.' (Lyon,1994, p.218). Having looked at examples of paranoia, we will now look at a different response to surveillance practices identified by participants: *resistance*.
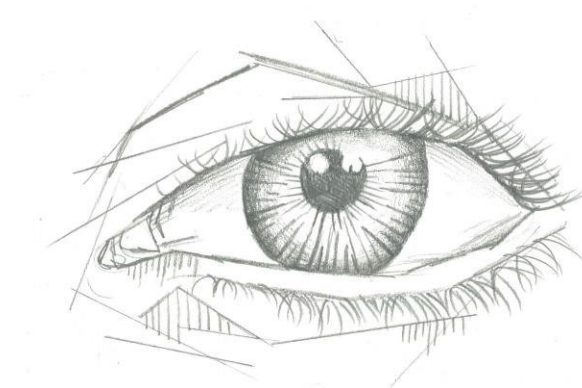
Sketch drawn by a colleague.

Theme 5: Resistance, subversion (& spoons)

For Anthony Seldon, 'factory schools' have become a normal part of the British school system and are characterised as institutions 'overseen by a tight inspection and regulation regime, with their principal objective being to ensure that the children who initially walked through the doors left at the end of the assembly line with target grades in public exams.' (Seldon, 2009, p.154). The surveillance practices participants described are not out of place in Seldon's description, yet a fifth theme began to emerge; small acts of resistance. Hope conducted research into student resistance to the surveillance curriculum and noted that surveillance could be seen as an act of control but also as an opportunity 'for empowerment' (Hope, 2010, p.331) as students 'forge their own identities through playful resistance,' (ibid. p.319). Taylor also noted many examples of student resistance to school surveillance practices, often aimed at revealing the 'absurdity of some school surveillance systems'; (Taylor, 2013, p.73). It was interesting to hear how participants had engaged in similar acts. Marx identifies different ways that people seek to neutralize surveillance, including deliberate avoidance and active resistance (Marx, 2016, p.144).

Avoidance: *'we always go this way.'*

We have already discussed that some participants ascertained the location, and limits, of CCTV in their workplace and took pains to avoid them. In my research diary I recorded a visit to a secondary school and being met by a participant in the car park. We proceeded to their classroom via a lengthy walk around the school perimeter, in order to avoid passing

CCTV cameras, ('*hope you don't mind - but we always go this way*'). I also noted a participant who had affixed a piece of blu-tak over the webcam of a laptop, ('*you can hack software, but nobody can hack through blu-tak!*'). Earlier researchers have noted students resisting surveillance by CCTV in similar fashion, through avoiding certain areas and restricting the cameras from recognising individuals (Weiss, 2010, p.221, Taylor, 2013, p.57); it was interesting to hear of adults adopting similar behaviours. Such examples may be small, but they are powerful and deliberate steps away from the culture of 'disciplined acquiescence' (Illich, 1978, p.21) Illich feared would overtake us. We need to remember that resisting perceived injustices in the workplace can come at a prohibitive cost. The need to pay the bills is paramount for most people. Losing a job following a disagreement with management may result in a poor reference that could, in turn, render the individual not simply unemployed but unemployable. Resistance can come at a high price.

In an early essay, Illich pondered whether we perhaps need to 'learn to laugh at accepted solutions in order to change the demands which make them necessary.' (Illich, 1970ii, p.174). Rather than engaging directly with the perceived problem or acquiescing to the *accepted solutions* offered by school management, some participants appeared to instigate acts of small, calculated playfulness. Illich wrote that only free people 'can change their minds and be surprised' and whilst acknowledging that no one is 'completely free, some are freer than others.' (Illich, 1970ii, p.174), it was interesting to note examples of teachers changing their minds and exercising small freedoms in surprising ways.

Resistance: *'learning to laugh'*

Some of the stories I heard could receive no other response than a surprised laugh. One participant, who I will not identify even by their pseudonym, related a story about a new Headteacher who had joined the school a few years previously. There were '*a lot of redundancies – I mean a __lot__*' and '*the decisions seemed very unfair. . .* (and the process) *. . .unnecessarily unpleasant'*. In one of the many consultation meetings, the participant noticed that tea and coffee was available in paper cups with plastic spoons but that the senior management team had cups, saucers and metal spoons.

They overheard the Headteacher explaining to their secretary '*I cannot stand plastic spoons',* and this was said in such a manner that the participant '*just couldn't take it – __so__ smug*.' The next morning, the participant was in school early and, (noticing that the crockery was still awaiting collection by the canteen staff), collected and pocketed all the metal spoons.

> '*It became a little challenge from then on; I would always have an eye open for metal spoons and made a point of popping into the meeting room at the end of the day, most days.'*

Soon it became clear that '*when the refreshments arrived for meetings there were hardly any metal spoons, and you could hear* (the Headteacher) *complaining about it.'* Eventually, the day came when the Headteacher was seen '*using a plastic spoon* - (and they) *looked really cross and was seriously playing-up about it!'*

I was curious to know the physical feelings associated with this situation and asked the

participant how they had felt at those times. A huge grin appeared on their face and I was told that:

> '*It's silly really – but sat in those meetings my feelings had changed from feeling small – on the backfoot – and worried, to feeling in control – at least of that one small thing.*'

I probed a little deeper and the participant looked away and was silent for a few moments before replaying, '*playing that little joke and seeing how cross* (the Headteacher) *would get over a spoon - <u>a spoon!</u> - made me see* (them) *as silly and small.*' Later in our conversation, the participant abruptly returned to this topic, as though they had still been mulling over it whilst we talked of other issues, and added '*actually, I think it helped me to get through those awful consultations and - let's face it – I didn't leave or accept redundancy and I still work here!*'

It is tempting to view such small jokes as trivial and unimportant, but they could also be seen as the beginning of resistance to perceived unfairness and an important way that individuals keep their sense of identity and dignity. As Stevenson has noted:

> 'Acts of resistance, individual or collective, high profile or barely visible, emerge from the cracks and contradictions of an education system in which complex human processes are reduced to numbers and engines that drive the machine of performativity and marketization.' (Stevenson, 2017i, p.553)

Illich frequently referred to the importance of a sense of 'playfulness' (Illich, 2002ii, p.235) and during a 'phone conversation during the pandemic, I discovered that the story of the spoons had a sequel. When the Headteacher retired, the participant collected up all

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the metal teaspoons, placed them in a gift-wrapped box and left them on the Headteacher's desk one morning alongside the leaving cards. '*I would have loved to have seen* (their) *face*'; when I asked how many spoons had been in the box there was a pause of several seconds before a slightly embarrassed, slightly triumphant, acknowledgement that there had been '*sixty-three of them - that's quite a lot really, isn't it. . .?*'

Other potential sources of data

When planning this study, I initially considered seeking the views and experiences of school students in addition to teachers. School students make up the majority of individuals within a school setting and are arguably the most observed and monitored group within that environment. Researching the experiences and opinions of school students would have undoubtedly provided rich and interesting data which could help to describe and explain the extent and impacts of surveillance approaches in English schools.

However, through discussions with my supervisors, reading the literature and lengthy personal reflections, I came to realise that my key interest was in the experience of schoolteachers and therefore my focus in this piece of research should be to listen to the voices of teachers.

Additionally, significant ethical questions arise when working with children, particularly when exploring difficult topics like surveillance. Whilst much rich data could have emerged from interviewing school students, I believe it was the correct decision to focus specifically on the experiences of teachers and to maintain a tight concentration on the views of that one specific group. However, follow up studies focussing on the physical experience of surveillance experienced by school students could provide a very fruitful line of enquiry.

Conclusion

When analysing the data, four main themes emerged: questions of privacy, the body and how people are made to feel physically, how we construct shared space and time, and questions around a sense of paranoia. In addition, I identified a fifth theme which surfaced in small examples from several participants and a lengthy anecdote from one individual: examples of resistance to surveillance approaches.

Within these five themes, two competing narratives have emerged with reference to surveillance practices in schools. One narrative relates these approaches to safety and effective monitoring. The second narrative situates surveillance techniques as part of a culture of suspicion and control.

Within the theme of questions of privacy, evidence emerged of concern from several participants regarding the extent of the surveillance they felt under and the perceived lack of relevance of this surveillance to the safety or effective monitoring of either themselves, or the children in their care. Specific examples included the lack of information about where CCTV cameras would be sited and the uncertainty of how such images were being stored and how, (and by whom), they could be accessed. Participants did not feel that such approaches related primarily to their safety but felt more akin to a culture of control.

Contributions explored under the theme of questions of privacy again related to feelings of suspicion and control rather than care and safety. The lack of opportunities for a moment of privacy in some contemporary schools, where teachers no longer have their own classrooms and the school does not have a Staffroom in the recognised sense, and the lack of privacy outside of working hours highlighted by Angela's concerns that email and Facebook communications were being actively monitored by senior staff, also support the second narrative.

The third theme I identified was the body and how people are made to feel physically; in this theme, it

emerged that Cameron's concerns that bodies are being re-made in relation to data, and his sense that this could feel '*overwhelming*' were again supportive of the second narrative. Kevin's comments about '*crushing the creativity*' out of schools were also indicative of the physical feelings resulting from such cultures of control.

Those statements I explored under the theme of how shared space and time are constructed included Judy's description of her workplace as a '*school with security cameras everywhere*'. Such a building may provide an additional feeling of security for the staff who work there, and Jack was clear that having such surveillance systems in place did indeed reduce their level of anxiety in comments which clearly supported the first narrative that such practices are primarily implemented for the safety and effective monitoring of staff and students. However, the majority of participants raised concerns relating to the second narrative; these included Andre's concern that even talking with colleagues made him feel nervous '*in case, inadvertently, I say anything that isn't positive or in case audio could be edited / cut to present a specific viewpoint if someone had a particular purpose in mind.*' Such views not only relate to the second narrative that posit surveillance techniques as tools of suspicion and control but also link strongly to the fourth theme which emerged during the research; questions around a sense of paranoia.

Here it was strongly apparent that several participants' experienced concerns around surveillance approaches in their workplace were of such intensity that they themselves labelled these feelings as 'paranoid.' Andre's statement that '*Thinking about this topic can be overwhelming*' and noting that the '*implications alarm me*' indicate a high level of concern generated by approaches ostensibly in place for his security. Angela talked of feeling '*overwhelmed*' and of having '*sleepless nights*' whilst Lucas warned of the '*additional strain / stress*' experienced by teachers and Kevin wrote of a feeling of '*drowning*'; each of these contributions are in opposition to the first narrative that surveillance technologies are in place for the improved security of staff and effective monitoring.

Instead, these experiences support the second narrative that such approached are instead inherently rooted in suspicion and control rather than care and security.

The fifth theme which emerged was centred on small acts of resistance regarding surveillance. Whilst this was not a prominent theme amongst the majority of participants, I felt that the comments which were made in this area were of particular significance. This theme suggests that surveillance technologies were viewed by some participants in such a negative light that some form of deliberate resistance was required; whether this was altering the route which teachers took when walking the school site, avoiding certain spaces in the corridor which were within the field of a CCTV camera, or even the systematic appropriation of cutlery, I felt that such small acts of resistance were important and should be highlighted. Acts of resistance clearly support the second narrative that surveillance techniques are inherently linked to cultures of suspicion and control.

Whilst several of the comments made by Jack suggested an agreement with the first narrative, most participants suggested a belief, (and fear), that such techniques are primarily intended as part of a culture of control. The lack of discussion, consent, or any meaningful ability to challenge these approaches, support these fears. Significant concerns were raised around privacy and how the physical structure of school buildings can support surveillant practices. Participants also spoke of the bodily experience of potential surveillance, their concerns about feeling *paranoid,* and shared examples of small acts of resistance. As a teacher working in similar environments, I am particularly interested in ways in which we can respond to surveillance approaches. These two competing narratives of care or control can be seen throughout the five identified themes. However, it may be that a third narrative is required which recognises the complexity of the issue. For surveillance tools to be supportive, equitable and trusted, all individuals and communities must be able to engage with them in a context of meaningful trust and transparency.

Chapter Six: Discussion

> *'...the often tacit assumptions and legitimating claims surrounding a new technology must be carefully examined in the light of the interests served, the normative and empirical claims made, and the questions not asked.'* (Marx, 2016, p.326)

> *'I hope nobody takes what I said for answers.'* (Illich & Cayley, 2005, p.229)

Beginning this EdD course I was clear about what I wished to explore and why. I was equally clear about what my research would uncover and the recommendations I expected to make. I was mistaken on both counts. My confidence was soon shown to have been misplaced and my thinking about surveillance in schools has developed as my knowledge has deepened. On a practical level too, my expectations proved false; I had expected to focus on what was said, (either in verbal or written speech) by participants. My initial analysis of the data consisted of precisely that. However, repeated reading and listening led me to focus not only on what the participants had said, but also what they had drawn and, most notably, what had not been said.

What the participants said

> *'Illich presents a unique and distinctive way of looking at technology. He starts from the concept of tools, and analyses what tools do to society.'* (Tijmes, 2002, p.207)

> *'all tools tend to be themselves powerful metaphors which affect the mind'*. (Illich, 1992i, pp. 202-203).

A central aim of this study was to investigate surveillance technologies in the light of Illich's writings and to explore the potential relevance of his work to contemporary issues. I believe this was successful to a degree greater than I had expected. I had intended to use Illich's later writings; however, issues raised by participants led me to realise those texts may not have been the most appropriate and I was compelled to a re-reading of his earlier work. Planning this research, I had not expected to rely on Illich's discussion about Dallas' lake water to analyse school buildings, nor to use his writings to potential missionaries.

Many aspects of surveillance were discussed by participants including their concerns at what was being recorded, who had access to it and how it might be used. A second order of questions was raised regarding the physical experience of being under potential surveillance and the sense of *paranoia* to which it gave rise. To illustrate how Illich's work can help explore contemporary issues, I have examined what the participants' said about surveillance technologies in the light of one of his central theoretical approaches; the Two Watersheds. As the question raised in the diaries referred to surveillance technology it was not surprising that most participants referred specifically to technological tools in school settings. In his 1973 essay '*Tools for Conviviality'*, Illich explored the deep structure of tools and suggested that all tools pass through two distinct watersheds; during the first they provide useful means toward a distinct end, but at the second they become counterproductive and become ends in, and of, themselves. I was interested to see whether the views of the participants regarding surveillance technologies reflected this conception of tools as 'it is sufficient to recognize the existence of these two watersheds in order to gain a fresh perspective on our present social crisis.' (Illich, 1973, p.8).

For Illich, tools that have passed into this second watershed can become dangerously counterproductive in a manner he termed social and cultural *iatrogenesis*; a situation arising when our approach to problems moves so far beyond use-values that it generates greater problems and difficulties than presented by the original issue the tool was developed to address. An example frequently raised by participants was the use by students of mobile telephones in schools. In his diary Kevin drew up a table regarding mobile 'phone use in schools:

Mobile phones in school

Pros	Cons
Can be used for research.	*Cyber bullying*
Can be used for looking up images, photos.	*Children can film and photograph each other and staff.*
Students have another way to communicate with each other.	*Gaming*
	Obsession!
	Students can contact their parent whenever!

Table included in diary by Kevin.

Reading this, student mobile 'phones could be seen, through an Illichean lens, as a tool that may be about to pass into the second watershed and become less a tool used to achieve a specified end than one whose use has now become an end in itself. The single noun ***'Obsession!',*** with the appended exclamation mark, eloquently expresses the view that the mobile 'phone as tool is being replaced with the mobile 'phone as end in itself, and Kevin's concomitant concern at the implications of such a transformation. When I visited Kevin, we flicked through his diary together over a cup of tea in his classroom. I queried some of the statements recorded on this table, seeking elaboration, and later recorded some

notes in my research diary. Regarding the statement *'Obsession!'*, I queried whether students really were obsessed with the 'phone and Kevin added; *'Oh yes! You know they are!'* before relating examples of teenage students being in tears when they mislaid their 'phone. This should not be a surprise, as Illich observed that tools can rapidly grow out of our control and can come to dominate people 'sooner than they expect,' (Illich, 1973, p.84).

I had expected participants to raise concerns around the presence of CCTV in the workplace as I already believed them to be a good example of increasingly counterproductive surveillance technology. However, I was surprised at the level of concern, fear and, to use a term raised by several participants, *'paranoia'* that was being generated by these devices. Five participants spoke with me prior to the interview, or when I arrived, to discuss their concern of being overheard by recording devices, and two gave me a tour of their workplace to show me the location and number of cameras. Whilst this was undertaken with wry smiles and comical asides, I felt there was a significant undercurrent of unease generated by these technologies.

Kevin commented angrily that *'A student should not be defined or pre-judged on a set of data on a screen!'* Yet he was aware that in his work he had no option but to engage with the child through this algorithmically generated data-double, as he graded work against pre-set targets, evaluated progress and discussed with the child and their parents / guardians. Cameron also experienced disquiet that children's data was becoming *'very influential'* and explained that it:

> *'becomes quite. . . (2 second pause) . . .overwhelming - it tends to take over the way I think about the students sometimes. . . how well they are doing in terms of their data and how that will look to other people.'*

I think Illich would be as uncomfortable as some of the participants, and increasingly appalled at how surveillant technology is mediating human interaction. Perhaps in the light of the 'mutant algorithm' (Coughlin 2020) Boris Johnson blamed for the 2020 summer exams incident, it is time to re-examine how we construct and use such data.

Illich identified two ranges in the growth of tools; 'the range within which machines are used to extend human capability and the range in which they are used to contract, eliminate, or replace human functions.' (Illich, 1973, p.85). Kevin's identification of students using mobile 'phones for research in lessons and for communication are clearly examples of the first range as they show situations where the students are using these tools to extend their ability to research lesson topics and share their ideas, whilst the use of the tools for bullying may be seen as a contraction of meaningful human functions.

It is important to state again that such tools can also present positive benefits when used within their appropriate limits. A mobile 'phone is a potentially surveillant technology; yet that is not all it is. There are many useful applications of this tool and even the surveillant aspect can have significant positive value. Illich's conception of the Two Watersheds is a useful metaphor to illustrate the complexities at play. The idea of a tool on the cusp of the second Watershed was emphasised clearly when Karim wrote that the use of such technology in:

> '*lessons has a lot of positives and negatives. Having access to the internet at the palm of a student's hand (!) when access to computers is limited. To be able to search something linked to the topic, extend their imagination beyond resources in the classroom*' (a smiley face was sketched at the end of this sentence but has not been included as I was unable to copy it without including part of the Karim's distinctive handwriting).

Karim also acknowledges some negative aspects indicative of mobile 'phones becoming

iatrogenic and their use as an end in itself:

> '*However, it also causes confrontation between students and staff as they become very attached to these devices. Being able to capture a photograph, having to be reminded about consent. . .*'

This example of technology being used to take photographs without consent shows the mobile 'phone changing from a useful tool to an example of surveillance technology that has the potential to disrupt the human interactions within the group. Karim felt there were many positive, and important, aspects to such technology including that:

> '*The use of mobile phones is <u>essential</u> for safety (if used appropriately), allowing students / parents / general individuals to communicate with one another. However, this privilege can be abused and is not always useful to support the learning of the student / individual.*'

Debate around student access to mobile 'phones is easily polarised; comments from Kevin and Karim indicate the subtle nature of tools described by Illich and the importance of ensuring they remain within their 'natural limits' (Illich, 1973, p.13) in order to be of value rather than becoming iatrogenic causes of disvalue. For Max, the issue of mobile 'phones went to the heart of how we care for children when he said, '*the kids don't need all these toys – they need our time.*'

During our interview, Kevin also stated that '*I worry that the children have 'phones and they can record and film'*. For me, this statement is heavy with meaning; with this potentially surveillant tool, students can engage fruitfully in their studies, but the tool is double-edged and can also be used cruelly and destructively. The mobile 'phone may be seen as a tool vacillating between the two watersheds; exploring it in this way could

provide a clearer understanding of the subtleties than often emerge when debating whether to ban mobile 'phones in schools. Whilst the concept of the two watersheds was central to Illich's conception of tools, his analysis was far deeper and more wide ranging; nevertheless, I feel it is useful to help move us away from the binary arguments between technophobes and technophiles (Marx, 2016, p.323) and accept the more nuanced nature of these tools.

What the participants drew

Several participants included images in their diaries; some were brief sketches whilst others were more detailed. I feel these drawings are important for three reasons; they seem to be included when words might have been insufficient to fully convey the desired meaning, they often highlight an element of the written response the participant wanted to emphasise and, finally, teachers usually have many calls upon their time and the decision to produce more complex illustrations suggests a desire to convey a particular thought or emotional response. These impressions were reinforced when I asked participants to explain what the sketches showed and why they had been included. In almost all cases the explanation given was cursory or even dismissive; I was told the idea behind the sketch was '*obvious*' or '*showed surveillance*' and this led me to conclude that the sketches were attempts to articulate thoughts that had been difficult to verbalise.

It was notable that many of the sketches included by participants involved an eye or camera lens. In his study on the work of Hugh of St Victor, Illich notes that Hugh 'always speaks from an intensely visual perspective' and always 'gives primacy to the eye.' (Illich, 1993i, p.25). The eye as a metaphor for surveillance is important, as too is the

nature of the eye being depicted. Whilst several of the sketches included clearly human eyes, others were more disembodied; I have chosen three discuss in more detail below.

Picture 1: An unblinking eye.
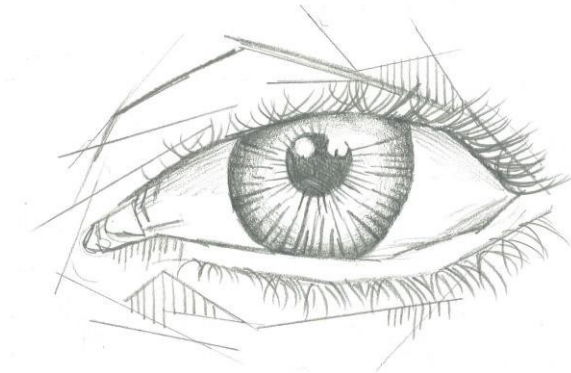
Whilst the eye pictured above is a well-executed and attractive image, the fact that it is a single, disembodied eye creates a slightly disturbing impression. The light reflecting in the iris suggests a liquid quality, and the eyelashes add to the gentle, human impression being conveyed, yet the fact that it is a single, unblinking eye drawn as though staring directly at the viewer is rather unsettling. The straight pencil lines and triangular shapes around the edges create an abstract, artificial setting and contrast with the otherwise liquid impression of the eye itself. This depiction of the watching eye is strangely ambiguous.

Picture 2: A lidless eye
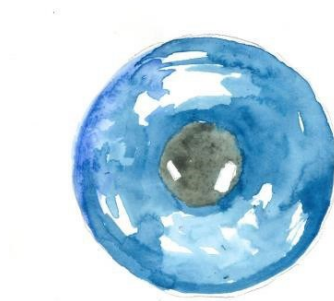
The watercolour sketch above is markedly different from the first picture. This eye is quite literally disembodied, consisting only of a pupil and iris. The blue of the iris and the white flashes in the pupil do not create a more human impression but rather highlight the unnatural and uncomfortable nature of this single, lidless watcher. Whilst surveillance in Orwell may be represented by the eyes of Big Brother, this sketch is reminiscent of Tolkien's depiction of the Dark Lord throughout his Middle Earth stories as a single, lidless eye. To represent the principal antagonist of the saga, and the title character of *The Lord of the Rings*, in such a (literally) disembodied form, highlights the power and complex nature of the eye as metaphor. Such an eye may see too deeply and too much.

Picture 3: Two eyes with an enigmatic gaze
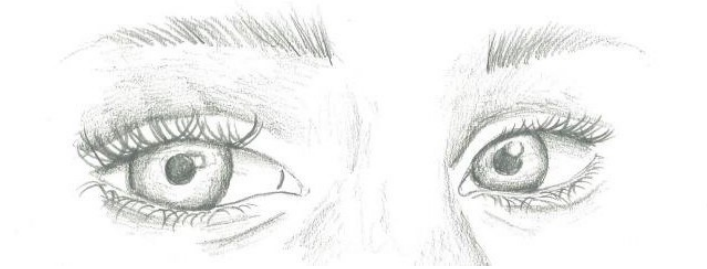
At first glance, I thought this an attractive sketch and spent little time considering it. I scanned the image as I felt it was a striking picture. However, as I initially used it on my title page, the image appeared each time I accessed the document, and as I looked upon it regularly, I considered it more deeply. I found the more I looked, the less I saw. I am now unsure of the age of the individual being depicted. I am unsure whether they are male or female. I am unsure whether their gaze is neutral, surveillant, beseeching or reproachful and have seen all these emotions at various times. I asked the participant directly about who was being depicted and the feeling behind their gaze; I was told, with a smile, that their point was about surveillance and that '*you don't **know** who is watching (…) or their intentions.*'

The Metaphor of the Eye: Ethics of the Gaze

'*When I think of the glazing which the screen brings out in the eyes of its user, my entrails rebel when somebody says that screen and eye are 'facing' each other*.' (Illich, 1992i, p.207).

For Illich, the aim of communication should be the seeking of the face of the other and engagement with them as a unique, embodied human being. Another person is a 'perceptually embodied self' and their 'utterances surge from the mass of flesh and blood, from the forest of feelings and meanings which engulf' (Illich, 1992i, p.206) everything they say. Such elements are lost, or at best obscured, when communication is mediated though a lens and screen.

Image 18: *Image from BBC Television serial of George Orwell's 1984 (1954) has been removed due to Copyright restrictions*.

From Orwell's depiction of Big Brother staring into every home, to Google's Street View software being described by journalists as watching like the 'eye of God,' (Lyon, 2014, p.21), the eye has been a powerful metaphor to explore surveillance. Gilman proposed 'root-metaphors' as ways to develop an understanding of continuities and variations around how we reflect upon common experiences over time (Gilman 1978, Leiss, 1990, pp.39-40). It was surprising how many of the participants used the words '*Big Brother*,' '*Orwell,*' or '*Orwellian*' in our discussions and reveals the extent to which that book is embedded in popular discourse. The eye as a metaphor for surveillance also appeared prominently from participants.

In one of his final essays Illich states that the 'Information Age incarnates itself in the eye,'

(Illich,2001i, p.6) and contrasted our contemporary instrumentalist paradigm of viewing with a scholastic metaphor of vision, he terms the 'ethical cultivation of the gaze.' (ibid). In a further late essay, he stated that 'Gazing, looking, facing, glancing are interpreted as fully human activities that can be morally good or bad, (Illich, 2001ii, p.9) and contended that such words have undergone 'radical semantic shifts' (Illich, 2001ii, p.13) that have resulted in a 'radical inversion of "natural" vision.' (ibid). Many current metaphors implicitly tell us to 'look at yourself and experience yourself in the perspective of the system-theories which we preach' (Illich, 1992iii, p.6). The choice of language and metaphors are important as we explore ways of understanding surveillance practices; Gallagher's investigation of how surveillance tools were used in schools noted that teachers would not respond to milder behavioural issues and would effectively turn 'a blind eye' to what was being viewed through the electronic optics, (Gallagher, 2010, p.271).

Hugh of St Victor proposed three pairs of eyes: the eyes of the flesh, the eyes of the mind and the eyes of the heart. The eyes of the flesh explore material things, those of the mind contemplate the self and those of the heart can see the light of Wisdom (Illich, 1993i, p.25-6). Each of these sets of human eyes are inherently rooted in the fleshly body and contrast starkly with the disembodied gaze of the CCTV camera. The essays shared with me by David Cayley comprised some of Illich's final, and formally unpublished, work which presented a historical study of ocular perception and including a discussion around the gaze and moral use of the eyes. Here Illich warns we are increasingly presented with virtual worlds purporting to represent real events, activities and individuals. He warns that 'the eye must be guarded from seeing the wrong things, from seeing not interior vision,' but 'dreams, apparitions, follies,' (Illich & Cayley, 2005, pp.108–109). Cameron wrestled with associated questions when he said: *I think sometimes we think of them*

(students) *more in terms of their data* (than as individual children)' and proposed that instead of viewing students as data we engaged with them through '*Conversations, doing, exploring, making, creating, building, playing* (as these) *are all alternatives to screen time!'*

The sketch below, from Karim, seems to make the same point; through an excessive use of surveillance technologies and data-driven practices, we are at risk of *seeing the wrong things* and viewing children merely as packets of data.
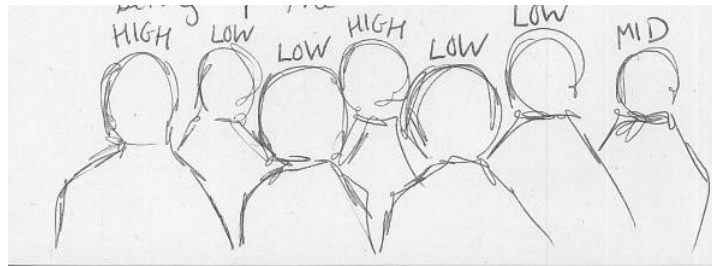
Contemporary society, filled with technology and information, 'incarnates itself in the eye. Speed reading, pattern recognition, symbol management are part of elite skills.' (Illich, 2000, p.6). Illich believed we had moved from a conception of the gaze as a means of understanding another unique individual, to an attempt to seek an objective reality that cannot be achieved in this way, (ibid p.21). Illich believed technological ways of seeing, (i.e., through screens, 'phones and CCTV), 'remove the picture of reality from the space within which the fingers can handle, the nose can smell and the tongue can taste it, and show it in a new "objective" isometric space into which no sentient being can enter.' (ibid. p.22). He contrasts 'experiences in the virtual realm' that 'lead me to see what is virtual and disembodied about others,' (Illich & Cayley, 2005, p.119) with the convivial gaze of

a human being who can 'see the misery of a slum', 'be present' (ibid) and meaningfully engage with another human being. Illich was clearly referring to optical means of viewing, but I feel his words apply equally to the viewing of another individual through their data set. Viewing a student by sole reference to their data is a radically different activity to looking upon that child and engaging with them as a unique and embodied person. This was what Illich warned about in his discussions around the ethics of the gaze and the choices we make. It is not an academic discussion rooted in abstract philosophical, theological and sociological questions. It is a decision made daily by all schoolteachers; the question of the methods we choose to view the individuals in our care and the consequences of the choices we make.

The sketches help to articulate this confusion; human, yet strangely unemotional, eyes watching us with unclear intentions. For Illich, 'computer-generated images shred the distinction between the imaginary and the real.' (Illich, 2000, p.28). In the case of surveillance tools, the image of technology observing us shreds the distinction between the imaginary and the real, between the human and the machine. The empty box designed to look like a CCTV camera, the *Santa-Cam*, which we looked at in the introduction, represents one type of gaze; a technologically assisted, disembodied, surveillant gaze mediated through camera and screen. As every child knows, Father Christmas, (and his elves), have no need of such artificial, and inhuman, technologies. Perhaps the sense of disquiet comes from a concern that there may be someone behind the technology and their intentions are unclear, or the sense that a vague, unknown and potentially unknowable power lies behind the technology. Either possibility is unnerving.

What the participants did *not* say: acknowledging the silences

'In modern society, silence has come into disrepute; this is a symptom of a serious, worrisome illness. The real questions of life are posed in silence.' (Sarah, 2017, p.27)

'(We can) … *easily forget that the most important messages perhaps aren't communicated by word of mouth, and definitely not by letters, but rather through body postures, facial expressions or actions, and life conduct. Poets know this and allow their protagonists to speak through actions. Yet social scientists struggle to interpret unspoken and unwritten communication.'* (Christie, 2020, p.35)

I initially feared my data felt rather thin; I was surprised when my supervisors suggested that I could also explore silences and recommended Lisa Mazzei's work. Several diaries were returned empty. Having initially discounted these blank diaries as having nothing to contribute, I was interested to read Crowther's view that 'a diary exists without a word ever being written in it' (Crowther, 1999, p.200) and reconsidered these empty notebooks. I was not previously aware of research in this area and would never have considered exploring what had *not* been said unless this had been proposed to me during this course.

Cohen et al (2007) caution that transcripts of interviews cannot 'tell everything that took place in the interview.' (Cohen et al, 2007, p.367). Mazzei seeks to reconsider silence 'not as a lack, an absence, or negation but rather as an important and even vital aspect of the fabric of discourse.' (Mazzei, 2007, p.xii). This was a new and intriguing notion for me and began to open fresh ways to explore my data. Mazzei suggests researchers learn to recognise and pay close attention to unspoken speech acts including pauses, silent breaths and those topics that are avoided or left out of discussions, (Mazzei, 2007, p.9).

Rather than viewing these lacunae as omissions, Mazzei maintains that researchers should engage with these moments as being both 'meaning full and purpose full,' (ibid p.9) and believes such silences are often indicators of unspoken feelings. Her aim is to problematize silence and create a methodology to enable these unspoken contributions to be accessible to research, (ibid p.14).

I attempted to engage in such an 'excessive reading' (Mazzei, 2007, p.19) of the data and to take note of silences as integral 'parts of the speech act' (ibid). This effort to focus as much on what was being communicated 'between words as with words,' (ibid p.34) opened new ways to explore the data. Revisiting the interviews and creating new transcriptions, I began noting participant's pauses during conversation. Timing these, I was surprised at the fresh insights gained and at how indicative the length of these pauses sometimes seemed. Listening again to my conversation with Cameron, (page 153 above), I was struck by the four second pause when discussing CCTV cameras before he said they made him '*feel very uncomfortable* (4 second pause)'. In my initial transcript I had simply typed the words spoken; listening again I realised that in my first attempt I had failed to notice this key information around Cameron's depth of feeling here. The pause I had initially ignored now felt lengthy and embodying more emotional resonance that the words surrounding it. When Cameron continued speaking and added the words '*...quite negative and insecure and quite unconfident in my. . .*' before pausing again and failing to complete the sentences, the initial pause now made the impossibility of this sentence being completed seem inevitable. The strangely mis-spoken utterance '*unconfident*' voiced by an articulate person, now appeared as a further indicator of the level of emotion being experienced by Cameron when trying to discuss this topic. Making fresh transcriptions, I felt I was tentatively beginning to take notice of the 'words between words'(Mazzei,

2007, p.35) in my interviews.

Mazzei suggests we consider our own silences as researchers and 'how / why we strategically employ such silences,' (Mazzei, 2007, p.51). Re-listening to my conversation with Cameron proved instructive and rather sobering. After the four second pause, Cameron continued speaking before trailing off. It is clear from the tape that I deliberately move the conversation onto a different topic. I remember this moment clearly; I was conscious that Cameron had agreed to discuss this to assist me in my research. He had not approached me to raise concerns about something which was bothering him. I was keenly aware that he had offered to help me, and I was now raising issues with which he was clearly uncomfortable. My decision to move the conversation on had been purely instinctive and my reading of Mazzei prompted me to consciously reflect upon it.

The data was clear that on some issues, participants felt they had been 'silenced,' (Mazzei, 2007, p.46). Far from choosing not to speak, they felt their views had not been listened to on key questions including the citing of CCTV. Angela recalled being told by students that a camera had been installed in a classroom she occasionally used and her initial inability to believe this as she was '*convinced that* (management) *would have had the decency to actually tell me*.' The lack of discussion, or even information, clearly made Angela angry and upset as her opportunity to speak had been removed and she had been denied a chance to express her view on whether, and where, a camera should be installed in her workplace and had been effectively 'silenced.' I took some time to ponder Mazzei's suggestion that researchers should be 'carefully attentive to what is not spoken, not discussed, not answered, not recited' because she feels that it is in these silent utterances that 'rich information is yet to be known and understood.' (ibid. p.66). I

considered the number of occasions where teachers were keen to share their views but vehemently opposed to having their words recorded. This was suggestive of a level of anxiety amongst some teachers around discussing these issues. Reading Mazzei, I began to recognise I had failed to consider significant elements of my data and to look afresh at what the participants had shared with me. However, I remained unclear how engaging with silence may be of practical use in further research or in my work in school. Looking to other researchers in this field I was delighted to come across the work of Helen Lees.

Exploring the Silences

> *'An objective study of the ways in which meanings are transmitted has shown that much more is relayed... through and in silence than in words.'* (Illich, 1970i, p.120)

> *'What are the ways in which our participants hide behind a mask or veil that permits them to speak without being heard, unless of course we recognize those veiled silences masking as words, speaking by keeping silent.'* (Mazzei, 2007, p.61)

Lees has explored ways that silence can be used in practice in schools. She distinguishes between two broad forms of silence practices in schools; weak silences (characterised by coercion, teacher dominance and the avoidance of certain conversational topics) and strong silences (that are non- coercive, reflective, autonomous and attentive), (Lees, 2012, p.68). I enjoyed Lees' work immensely and was pleased to have the opportunity to put some of these suggestions into practice during the smaller, less directed, classes I ran during the first lockdown. I feel these attempts to develop companionable silence in schools were akin to the search for convivial tools and practices explored by Illich.

In 1972, Illich provided a foreword to Carlo Carretto's book '*Letters from the Desert*.' In characteristically enigmatic style, Illich hoped that readers would engage with Carretto's words 'on a day of complete silence – to which they rarely treat themselves – or, more often, to which they are condemned.' (Illich, 1972ii, p.x). The book is a record of the decade Carretto spent in the Sahara, living a life of ascetic solitude, prayer and silence. For Carretto, such an eremitical life was centred on the 'joy of solitude – silence, true silence, which penetrates everywhere and invades one's whole being.' (Carretto, 1972, p.31). Carretto noted that '...living in perpetual silence, one learns to distinguish its different shades...' (ibid p.31).

In her work on silence in schools, Lees too identified different shades of silence noting that the 'nature of silence is beautifully unruly' (Lees, 2012, p.1) and identifying three specific benefits that may arise from engaging with silence in classroom practice. Firstly, the conscious engagement with silence in schools 'allows freedom from the ingrained oppositions of right and wrong which permeate everything from behaviour to exam results and enforce a testing-assessment mentality.'(ibid. p.105). In the second place, few schools are truly democratic structures; Lees contends that working with silences can enable us to introduce more democratic practices into schools. Finally, Lees writes that silence can help 'undo externalisation of the self.' (ibid. p.106). She suggests that many people today are 'in thrall' (ibid) to packages of information, entertainment and education that are industrially produced and supplied, whether this is through broadcasting, the internet or computer games. As images and ideas around how, and what, to think have been created for us and become increasingly dominant in society, Lees suggests that deliberate silence can help children recognise and engage with their own internality and the 'genuinely personal, devoid of means-end mentality.' (ibid. p.106)

Such an approach, and indeed the very phrases used, would surely have met the approval of Illich and Carretto. Recognising our growing reliance on externally produced and industrially packaged entertainments, images and mores, and proposing a re-focussing on the internal, would not be out of place in the writings of Illich, Carretto or Ellul. What is so appealing about Lees' work is that she proposes practical methods by which these aims may be employed in school settings. Indeed, Lees' third point is reminiscent of Carretto's experiences of the silence of the Sahara and the opportunity it gave to explore his internality. Carretto's life was marked by a sense of deep interiority characterised by his experiences of solitude in the desert and, whilst few of us may wish to go to the lengths he experienced, silences can provide a useful corrective in the modern world, or even the modern classroom, that is often characterised by noise, haste, and overconsumption. Carretto is discussed in Cayley's most recent work (Cayley 2021) but I am surprised that he is not referred to in either Hartch (2015) or Baldacchino's (2021) books on Illich, as I feel strongly that the friendship and correspondence with this renegade religious had a clear influence on Illich's later thought.

Interestingly, in a 1989 interview, I believe Illich's colleague Lee Hoinacki makes an implicit reference to Carretto when he said:

> 'The silence one feels coming to a new language and not being able to say something. And with Illich, he took off from this experience, in a sense, to live in a kind of silence before you might say what is, a kind of metaphysical silence, a kind of <u>spiritual silence</u>, a kind of silence that one sees, for example, <u>in the fathers of the desert</u>.'
> (Illich, 1989i,p.4) *Text underlined here for emphasis.*

Although certainly oblique, I draw attention to it here as there have been so few acknowledgements of the influence of Carretto on Illich's thought. I contend that his

friendship with Carretto was a major, yet seldom acknowledged, influence on Illich's thought and writings.

__Illich and silence__

Having started this research confident in my knowledge of the work of Illich and clear around the type of data I would obtain from participants, I was doubly surprised to find myself focussing on what the participants had *not* said and to discover that Illich had also written about silence, at some length, in essays with which I was less familiar. Whilst aware that Illich's apophatic style frequently meant he addressed issues obliquely, I was not well acquainted with his explicit writings on the nature of silence. I returned to my bookshelves and re-read Illich to begin to construct a framework of his work on silence.

In 1956 Illich became Vice Rector of the Catholic University of Puerto Rico, which presented an opportunity to work with young missionaries. Following these experiences, he gave an address entitled '*The Eloquence of Silence*' where he stated that 'words and sentences are composed of silences more meaningful than the sounds' (Illich, 1970, p.45). He exhorted young missionaries not only to speak less, and listen more, when working with Puerto Ricans, but also to listen to the silences between them as he maintained that 'language is as a cord of silence with sound the knots'(Illich, 1970, p.45). It is therefore not the other's words but their 'silences which we have to learn in order to understand,' (ibid). I was struck by these words as I listened again to the recordings of some of my interviews. The lengthy pauses of the interviewee were matched by my own silences, and scribbled notes in my journal recorded the body language of an averted gaze, a beseeching look or shrugged shoulders. Such unspoken communication seemed pregnant with

meaning.

Introducing Illich's first published collection, Morton realised that 'Illich constructs a grammar in which silence is the highest mode of communication.' (Morton, 1970, p.8). Illich aimed to classify distinct types of silence and distinguishes the 'silence of the pure listener' from the 'silence of indifference' that 'assumes there is nothing I want or can receive through the communication of the other.' (ibid). This reminds me of an occasion when I accompanied a pupil to a particularly distressing meeting with their Social Worker; we returned to school without speaking and, when they requested to stay with me for the rest of the afternoon, we sat together in companionable silence in my office.

At the end of the school day, I apologised for the silence between us, as I had simply not known what to say – I can recall very clearly them looking at me and saying there had been 'nothing *to* say' and what they had wanted had just been that 'right kind of silence' for a little while. I have not forgotten that moment and I feel that Illich was correct when he stated that 'it takes more time and effort and delicacy to learn (another person's) silence. . .than to learn their sounds' (ibid). I had known that student for four years and worked in safeguarding for more than ten; having that level of experience may have meant I knew there was nothing meaningful to say at the time and that silence was all that could be spoken or, indeed, was needed. Such a silence in a school is qualitatively different to the silent corridors enforced in some academy schools, (BBC 2018).

In an early essay focussing on missionary silence, Illich set out to develop a classification of silence and identified four distinct forms. The first type identified was the pure silence of the deeply interested listener which has its opposite in the silence 'of indifference, the silence of disinterest' (Illich, 1970i, p.121). As a teacher I recognise these opposing types of silence; Illich describes this silence rather beautifully as the 'silence of the city-priest

on a bus listening to a report on the sickness of a goat...' (ibid. p.121). Anyone who works

with people will recognise the many occasions when someone wants, needs, to talk to us,

to give voice to their experiences and feel that they are being listened to. In such cases,

teacher talk is not wanted; what is needed is that intense, interested silence that responded

to the news of a goat's ill health. Too often the increasingly hectic modern classroom has

few spaces where such a silent listening is even possible and, as a result, the opportunity

to develop that skill is diminished. I recognise in this form of silence an important skill I

have used many times in my working life, yet I do not recall it ever being mentioned in

the many hours of training I have attended; perhaps it is time we sought to be consciously

aware of such important silences and to actively engage with them when they are required.

The second category Illich creates is theologically rooted and refers to the meditative

silence of a worshipper communicating with God. This is contrasted by hurry,

unnecessary tasks that commandeer our time and attention and 'the habit of verbal

confection' (Illich, 1970i, p.122). This last phrase has stayed with me and I have tried to

be more conscious of how much of my own talk in school is empty and little more than

such *verbal confection*. As I have spoken less in class, that void has not always been filled

by student talk but frequently by moments of thoughtful silence as we consider the topic

under discussion; as such, these silences have indeed felt like the silences 'before words,

or between them' (ibid. p.122) than as absences. Illich's third class in his grammar of

silence is that which exists *beyond* words. This is the deeply theological silence 'beyond

a final yes or a final no,' (ibid. p.123) it is silence of wordless love or the emptiness of

Hell. The fourth form of silence identified by Illich is the final, eternal silence of an

ultimately unknowable God, the silence 'beyond the possibility of answer.' (ibid. p.125).

The first two categories of Illich's analysis could provide fruitful ground for engaging in

silence in schools.

Illich returned to this topic in a 1982 address in Tokyo where he suggested silence was the only possible response to controversial questions around nuclear war or eugenics, as such silence can 'present a provocative challenge,' (Illich, 1992, pp.27-28). Illich argued against taking part in debate or discussion around these issues as 'there are compelling reasons for refusing to be drawn into a direct argument on certain topics' (ibid. p.29) as engaging in such a debate could be seen as taking part in a meaningful discussion when the decisions have already been made. He said that '. . . other forms of expression can speak louder and more accurately than words' (ibid. p.30) and championed the adoption of an 'eloquent and rationally chosen silence' as the 'most intelligent and most experienced expert can use silence as his last word.' (ibid. p.30).

These comments link back to my research, as participants stated on innumerable occasions that they did not feel they had any control, that decisions were often made without their meaningful involvement, and the resulting feeling that this was simply the way the world was. A note from my own research diary records a conversation with a union representative; they had recently attended a consultation meeting at a school and now expressed their frustration that whilst the decision had clearly already been made, the fact that union members had attended the consultation allowed the Headteacher to state that there had been 'full consultation with staff'. They stated: '*to be honest, I wonder whether we would have been better to refuse to attend or engage in the process. (That may have been) more powerful*'; they questioned whether '*absence and silence may have said more*' than any words used during the '*consultation*.'

During my research, a senior member of staff at a school spoke with me at length about surveillance and commented on staff feedback forms. They explained that in previous

years, staff were asked to complete a paper feedback form around proposed changes to school policy. Most staff would complete and return these forms; some would write their name on them, but many would not and there was a reasonable level of anonymity possible. Correspondingly, senior staff were often able to gauge the views of staff with a reasonable level of accuracy. However, they explained that in recent years the school had changed to recording feedback using an online survey form emailed to staff. As a result, there was now only a minimal level of response (on one issue the number of responses matched the number of members of senior management precisely) and that those who responded invariably gave highly positive feedback to management decisions. With a cynical smile he then said that the low response rate was not a problem as it showed that people had 'engaged in the process' by attending the meeting and the replies would be shared as a pie chart showing the high level of agreement, (although not the number of respondents).

For Illich, those who remain silent are 'ungovernable' (Illich, 1992, p.31) and 'silence proliferates'(ibid.). In a 1983 statement regarding nuclear weapons, he stated that 'only my silence speaks clearly' (ibid p.32–33). Such a silence was what Illich now felt to be 'the only proper response to the horrors of our time.' (Illich, 1988, p.14). Illich himself stated, rather bluntly, that he 'did not want to take part in a conspiracy to gab about peace but claim the privilege to horrified silence in front of certain things, if I make my horror visible.' (ibid. p.14). The words, silences and body language of the participants frequently made visible their horror at the growing surveillance culture in schools.

Putting silence to work

'Silences and pauses must now be invited to step forward and take their rightful place in the pantheon of speech acts.' (Mazzei, 2007, p.18)

'Potential is released from the silence that can be translated into discourse and action.' (Lees, 2012, p.107)

Having completed union work and previous post-graduate research, I was genuinely surprised at the difficulty I found in gaining participants for this study. Previously, I had easily recruited colleagues willing to take part in small-scale research but here there appeared to be a reluctance bordering on fear when people were asked to express their views, on record, regarding technological surveillance devices in schools and how they were being used. I feel it is important to acknowledge the many individuals who wished me well with my research but refused to take an active part; their formal silence expressed deep and genuine concern around these questions.

Sarah (2017) considered busy modern lives and wondered 'how many people are obliged to work in a chaos that distresses and dehumanizes them?' (Sarah, 2017, p.33). However, even though 'Noise wearies us, and we get the feeling that silence has become an unreachable oasis.' (ibid. p.33), an engagement with meaningful silence may provide a way to respond, resist and subvert practices of surveillance and control. Having read Mazzei and Lees I was intrigued, but also concerned, around whether I could meaningfully engage with silence in my role in school and the explicit contribution it could make to my work in education. After lengthy reflection, I feel their work relates well to Illich's conception of convivial tools and his plea for counterfoil research to respond to contemporary issues regarding technological tools.

Convivial Tools and Counterfoil Research

In contrast with counterproductive tools, Illich proposed *convivial* tools and defines them as 'those which give each person who uses them the greatest opportunity to enrich the environment with the fruits of his or her vision' (Illich, 1973, p.21) and explains such tools would 'foster conviviality to the extent to which they can be easily used, by anybody, often or as seldom as desired, for the accomplishment of a purpose chosen by the user.' (ibid. p.22). He observed the implementation of convivial tools can 'rule out certain levels of power, compulsion and programming...' (ibid. pp.16-17) and I feel that the tool of silence could help in the recognition and re-evaluation of technological surveillance tools into more *convivial* forms. The experiences, and frustrating levels of stress, of the teachers who were checking work emails multiple times before leaving home each morning, or the individual sending work emails on their smart watch whilst in the shower, are pertinent here. When the effects can sometimes be seen so clearly, it is difficult to understand why anyone would prefer to invest substantial time and money in frustrating technological tools that display such counterproductive results.   I was interested to read Illich's 1973 comment that 'When maddening behaviour becomes the standard of a society, people learn to compete for the right to engage in it.' (ibid. p.79). In contrast, in a later essay Illich described the convivial atmosphere at Barbara Duden's house where she had 'created an ambience of austere playfulness' and concluded that 'learned and leisurely hospitality is the only antidote to the stance of deadly cleverness that is acquired in the professional pursuit of objectively secured knowledge.' (Illich, 2002ii, p.235). In later writings, Illich increasingly turned to the work of the twelfth century abbot, Hugh of St. Victor.   In conversation with Cayley, Illich stated that 'Hugh's book... deals with

technology, but I haven't found a single commentator, from his immediate successor in St. Victor in 1170 until modern times, who has recognized Hugh's brilliance in devising a way in which one can speak about technology as a theologian' (Cayley & Illich, 1992, p.223).   Illich explained that he preferred Hugh's manner of speaking to the alternatives as the 'overwhelming view of what tool-making means can be summed up in the phrase "making the world a better place to live in." But Hugh says – if I understand him correctly – that tools are an assistance to remedy a little bit of the damage we have done to the world. It's a humble view of tools.' (ibid. p.223).

We have seen that participants in this study shared many of the concerns raised by Illich around the impacts of technological tools being used outside of their natural limits and becoming surveillant. However, as members of such a society we retain some autonomy and can work to 'develop constitutive boundaries within which tools must be kept.   Such boundaries circumscribe the kind of power structures that can be kept under the control of people.' (Illich, 1973, p.77).   Rather than acquiesce to a situation where tools have escaped from political control and people are 'reduced to an indefinitely malleable resource of a corporate state' (ibid. p.77) individuals can work to retain their individuality and freedom from technological management.   He proposes an engagement in 'counterfoil research' that has two major tasks; to analyse the situation and thereby create a methodology to detect 'the incipient stages of murderous logic in a tool' and secondly to 'devise tools and tool systems that optimize the balance of life, thereby maximizing liberty for all.' (ibid. p.77). Such counterfoil research would be focussed on an analysis of disutility in a system, and the menace posed by growth of technological tools outside of politically controlled limits. It would also focus on those aspects of institutional structures that may help to 'optimize convivial production.' (ibid. p.82).

This study suggests several ways in which schools could change to optimize conviviality. These include the simple step of school managers informing staff, and students, when they propose to install CCTV cameras, explaining their reasons and being open to meaningful discussion. A major cause of anxiety amongst participants was the lack of clarity around where cameras were sited and how footage would be stored and used. It would be interesting to explore whether surveillance tools could undergo convivial reconstruction; this would involve a meaningful dialogue around where such tools would be placed but also an acknowledgement that the data recording of individuals must, in some sense, belong to that individual. If my lesson has been recorded, perhaps I should be able to access a copy and to use it for my own professional development or to submit extracts from it as part of the lesson observation schedule?

I hope that in a small way, this thesis can contribute to such counterfoil research.

<u>Conclusion</u>

I began this discussion chapter by quoting Gary Marx's statement that our 'often tacit assumptions' around technologies should be examined from many standpoints, including in the light of the 'questions not asked.' (Marx, 2016, p.326). My aim was to respond to Marx's challenge, and I have examined the participants' written, spoken and drawn contributions, and tried to explore what was *not* said and the silences that repeatedly emerged in my research. It was clear from the contributions participants wrote, spoke and drew, that the eye remains a powerful, yet enigmatic, metaphor for surveillance and indicated the extent to which individuals felt that they were being watched.

The exploration of the silences in my data unexpectedly brought me back to some of Illich's earliest published work and the pressing need to respond to the negative effects of

surveillance technologies through engaging in counterfoil research to oppose counterproductive surveillance and foster a greater degree of conviviality.

In this chapter I have continued to draw on a deep reading of Illich work. In order to fully engage with Illich's concepts and approaches it is important to have a deep familiarity with writings from all stages of his work and the different strands of his life. A better awareness and understanding of Illich's work as priest, academic and historian all help to form a more coherent picture of the man himself, but also a greater appreciation of the nature of the concepts he developed and how they relate to each other, and the philosophical traditions from which they arose.

In this chapter I have presented a novel way in which we can explore individuals' experiences of surveillance approaches; through using the work of Ivan Illich to explore what the participants drew, what they said and, more unusually, what they did not say. Illich's work on the significance of silence has not been widely recognised. The importance of his work in this field should be acknowledged not solely for the greater understanding it gives us regarding Illich and how we can construct a better understanding of his theoretical approaches, but also through the new knowledge we may gain by applying these approaches to contemporary questions.

Chapter Seven: Conclusions

'We must not, however, be overzealous in our endeavour to find a solution. A single good question is worth more than a hundred shoddy answers.' (Christie, 2020, p.45)

'(setting self-imposed limits) . . . *is for many people who suffer from great fears and a sense of impotence and depersonalization, a very simple way back to a self which stands above the constraints of the world.'* (Illich, 2000, p.48)

My purpose in this research was to explore the question: *how do school staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools?* To respond to this main question, I developed three subsidiary questions. Firstly, what effect do surveillance technologies in schools have upon relationships between colleagues and with students? Secondly, what is lost by the application of such surveillance technologies in schools? Thirdly, how can Illich's work show us a way to respond? To investigate these questions, I carefully explored schoolteachers' experiences of surveillance technologies through diaries, interviews and my own observations and reflections. The research data was then examined in the light of surveillance studies and Illich's writings. This chapter discusses the extent to which my main question has been answered. It reviews the research process and considers the contribution to knowledge and the implications of my study.

What effect do surveillance technologies in schools have upon relationships between colleagues and with students?

The data I collected indicates that surveillance technologies in schools may have a significantly negative impact upon relationships between colleagues and with students. Implementation of surveillant approaches without meaningful information, consent or right of reply, left the participants feeling uncomfortable, anxious and angry about this element of their workplace. A chilling effect was also apparent as participants felt uncomfortable in talking in physical spaces where they could potentially be recorded. Surveillance approaches were shown to interfere with normal interactions between the participants and their students and led to a rigidity and artificiality which participants found uncomfortable. A wide range of surveillance approaches exist in UK schools including lesson observations, data bases (ostensibly) tracking the behaviour, engagement and progress of students (and, in turn, of staff) and the potential monitoring of email communications. The main surveillance technology referred to by participants in this study was CCTV. There was a link here with email communication; the fact that emails could potentially be surveilled caused concern to some participants irregardless of whether they were being monitored or not. Equally, CCTV cameras in schools were shown to create a sense of unease amongst the participants and this too was not related to evidence that the cameras were being actively watched or the footage used in disciplinary ways; despite the levels of concern voiced by participants around CCTV it is interesting to note that no examples of footage being used in disciplinary processes were raised. It is possible that actual surveillance may not always be taking place; yet the potential for it

is sufficient to create a deep sense of unease and distrust.

That surveillance technologies were present and had the *potential* for surveillance generated a significant level of concern amongst participants. Many felt there had been neither information given, nor consent sought, around the installation of CCTV in their workplace. Only Jack and Karim made positive points regarding cameras but qualified this later in our discussion.

Without discussion or consent it is questionable whether these surveillance practices could be viewed as proportionate. Additionally, it was unclear to participants whether CCTV was placed in certain areas due to specific concerns, so it was not possible for them to meaningfully consider whether they were being used in a proportionate manner. Much of the concern expressed around CCTV and potential monitoring of emails seemed to centre around inaccurate conclusions being drawn from such surveillance techniques and the lack of opportunity to challenge resulting judgements. Unfortunately, this study found no evidence that school surveillance tools are being used in consensual, proportionate or balanced ways.

Surveillance technologies and approaches were also shown to be having an impact on relationships between staff. Changing behaviour and altering routes to avoid CCTV cameras in corridors, highlighted the shifting power relationships in schools: when experienced teachers feel such a lack of trust toward senior staff as a result of the installation of surveillance technologies, (ostensibly provided for their safety), we must question whether these approaches have moved between Illich's Two Watersheds. I was uncomfortable at the level of anxiety and uncertainty voiced to me by participants regarding their lack of trust in other colleagues and unfocussed fears about how data, CCTV recordings and files may be used at an unspecified point in the future.

Surveillance tools were shown to impact on relationships between participants and students. Concerns expressed included the increasing tendency to view students as packets of data rather than as individual children, surveillance technologies creating a distancing effect between student and teacher, and a growing disquiet at the level of recording, and reporting, of minor misdemeanours to parents. Children in schools are increasingly being viewed in relation to data collected regarding them – their data-doubles – despite the discomfort of some teachers. Disquiet was also evident at the way behaviour tracking software is used to record low-level behavioural issues and then makes this data available to parents. The way the system recorded a greater number of 'points' for a negative event than a positive one, and the presentation of this unequally weighted data in a red / green pie chart was felt to be questionable and unhelpful to the relationship between teacher and student. Here, it is the surveillant technology itself that removes, or at least severely diminishes, the freedom of choice to the teacher around how misdemeanours are recorded and presented to parents. The allocation of points is determined by the software programme, or senior management, and the recording of incidents using this system is mandated by the school. Once this programme is set, there is little human moderation of the data presentation, and the system becomes increasingly distanced and disembodied. When student behaviour is presented as a pie chart of two colours, the opportunity for meaningful nuance in any discussion is significantly hampered. Data in this format is not able to be edited but simply accumulates over time, and is continually accessible to staff, students and parents, causing concern to the participants and making them question how well they would have been able to manage such a situation when they had themselves been children at school.

The use of surveillance technologies, without meaningful opportunity to respond, was

shown to lead to a sense of suspicion and mistrust between staff. Whilst we refer to distinct levels of management in schools, it is important to remember that in most schools, senior staff are also classroom teachers and work under the same systems of surveillance, monitoring and accountability. In such a system of shared working practices, elevated levels of suspicion and mistrust should not exist; yet clearly, they do.

If the relationship between staff at distinct levels of seniority is soured it is likely that relationships between staff of a similar status are also affected. Here we must return to questions of what was *not* said by the participants and what may have been communicated by their silences. I have known few colleagues to openly question or voice concern at the growth of surveillance technologies; even when the question has been raised specifically at trade union meetings, this issue is rarely prioritised by members. That participants voiced such deep-seated concerns during an individual interview shows that they may not be comfortable sharing such views with colleagues or even fully acknowledging their own concerns. The lengthy pauses recorded indicate these concerns had not always been consciously considered and thoroughly thought through by participants prior to the interview. Expressing such views to colleagues may not be prudent and again shows a lack of trust. The sketches showing amorphous students identifiable only by their data, disembodied eyes and a camera lens, also indicate a distinct level of unease in the workplace around these technologies and their implications. This study has found evidence suggesting surveillance technologies in schools may have a negative impact on relationships between colleagues and with students.

What is lost by the application of surveillance technologies in schools?

Data generated in this study suggests clear boundaries between work and home, a sense of professional autonomy, and a sense of security may be lost, or significantly weakened, by the use of surveillance technologies in schools. Surveillance technologies in schools can be positive; increased security of the school site and the opportunity to record events can be hugely important. The accurate recording and tracking of data are also helpful when planning and delivering a curriculum. However, the use of these tools may incur loss in several areas.

Loss of clear boundaries between home and work was identified in this study and this clearly gave rise to increased levels of workload, stress and frustration amongst participants.   Lack of clarity regarding when to read, and respond to, work emails was also shown, with the sheer volume of such communication becoming a significant source of stress. The teacher who spoke of a smartwatch they had been given as a present being used to check, and respond to, work emails whilst in the shower highlights the growing sense of pressure and the increasingly blurred boundaries between home and work, public and private, that have been created by how we choose to introduce such surveillance technologies.

Another area that emerged was the changing relationship between present and past; data and recordings can be made, yet not referred to for a considerable time. Routine events from the past are no longer confined to that past but may re-emerge and be used in unexpected ways. A frequently voiced concern was that such data could be reviewed at

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a much later date and '*taken out of context*'. The concern that data used for target setting could be arbitrarily altered by management created a sense of distrust and insecurity. The increasing use of surveillance approaches have led to a feeling of reduced professional autonomy.

There is a marked alteration in the power structures in a classroom when we move from a teacher working with a class of students, to a teacher and their students being observed and recorded by software systems recording each individual key stroke, identifying how long each PowerPoint slide is presented, and where CCTV cameras may be present. When movement through the corridors is also recorded on camera and there is no Staffroom where teachers can talk openly, such inappropriate use of surveillance tools and practices are contributing to staff stress and insecurity and may be a factor in the problem of recruitment and retention. It is clear that systems exist which give significant potential for surveillance, whether or not it is being used, and staff anxiety seems proportionate to that potential. This study showed the use of surveillance technologies in schools may be linked to a loss of professional autonomy, self-confidence, and security regarding their position and future.

The loss of a security; the problematic of *Potential* surveillance

The definition of surveillance presented in the introduction included explicit reference to the *potential* ability to surveil being as important as actual surveillance to those who experience it. This emerged as a clear theme from the participants. This study shows that systems exist which have the potential for surveillance and whether they are being used or not, staff anxiety is proportionate to that potential.

If we use Lyon's definition that surveillance is 'collecting information in order to manage

or control' (Lyon, 2015, p.3), then meaningful surveillance is not taking place in many schools. However, it is clear from the participants that many are experiencing disquiet, unease and even a sense of '*paranoia*' around the *potential* of being surveilled. This experience of surveillance is real, even if it were shown that the actual surveillance being feared was not. I contend that greater focus in surveillance studies be placed on environments and practices which suggest *potential* surveillance even if actual surveillance does not take place.

For participants in this study, the lack of certainty regarding whether they were, or were not, being surveilled caused anxiety and concern. Another loss resulting from the use of such surveillance technologies was the certainty regarding whether surveillant observation is taking place or not, whether agreed targets will remain or change without discussion and whether emails are being read, or not, and for what potential purposes. Such a loss of confidence in knowing whether or not you are being observed and recorded whilst at work was shown to have significant impact on participants' self-confidence and the way in which they interacted with colleagues.

The student in my class knew instinctively that it did not matter whether the elves are watching or not – the fact that they *may* be doing so is sufficient to affect the way we feel and behave. The change from *traditional* to *new* surveillance approaches (Marx 2016) leads to a distinct shift in relationships and interactions between colleagues, and with students, as there is a significant difference between a conversation held with, or lesson observed by, an embodied person, and such activities being (potentially) recorded for (potential, yet unspecified) future use. The *SantaCam* did not make my student uncomfortable because it suggested the possibility of observation but because of the change between being (potentially) watched by Santa Claus using *traditional* surveillance

and being surveilled by Santa Claus using *new* surveillance technology. Similarly, teachers are continually watched and observed by colleagues and students throughout the day; it is an accepted part of the role. Yet these accord with Marx's *traditional* approaches and have little in common with the *new* surveillance technologies. It is not simply a case of whether or not the elves are watching, but the tools they may be using to do so, who has access to that data, how it is stored and how it may be used in the future.

How can Illich's work show us a way to respond?

A key aim of this study was to explore surveillance issues in the light of Illich's writings and to explore the potential relevance of his work to contemporary issues. I believe this was successful to a degree greater than I had expected. I had intended to use Illich's later writings; however, issues raised by participants led me to realise that those texts may not have been the most appropriate and I was compelled to a re-reading of his earlier work. When I began this research, I did not expect to rely upon Illich's dissertation on lake water to explore the physical design of school buildings, or to use his work with potential missionaries to explore perceptions of surveillance technology in schools.

Illich's conception of the Two Watersheds allows us to avoid simplistic arguments around whether surveillance technologies are good or bad but above all, Illich enables us to move from description and analysis of the situation toward a practical stance. Illich was a teacher, a university lecturer and a priest. He knew from personal experience that active resistance can be both exhausting and unlikely to succeed. Illich looked instead for methods to subvert systems of control, took a moral stance by refusing to even discuss the possibility of implementing inhumane practices like nuclear warfare, and sought

approaches to re-engage with individual people and find meaningful ways to live within a difficult system. Both in his writing and his life he reminds us that we need to engage with the other as a unique and embodied individual, that our opportunity to interact with them is a gift and should be enjoyed and cherished. The transformation of the other into a data set, something to be evaluated, graded and managed, should be seen as unhealthy, unhelpful and something we need to become aware of and reject. It was clear from the participants that the aspect of their role they most enjoyed was engaging with the children in their care. Many of the concerns expressed regarding surveillance technologies in school related to the way in which they impact directly on the children and the harmful effect on the relationship between teacher and student.

A greater appreciation of the fullness of Illich's life and work is called for. One element of this study has been to engage in this project; I have tried to use less familiar works by Illich and a number of unpublished later essays were shared with me by his colleagues, (see Appendix V). An appreciation of the depth of his writing and the debts they owe to Ellul and Carretto would be hugely beneficial to a better understanding of his work and relevance to contemporary issues. Illich's work on silence, his refusal to engage in debate on inhuman practices and his striving to engage with other people on a direct, personal level are highly relevant to the developing role of the classroom teacher.

My three subsidiary questions aimed to answer the overarching question of: *how do staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools?* On reflection, the three subsidiary questions have allowed me to answer my main research question to an extent and to identify significant negative impacts of the current system and propose ways in which school staff could

respond. The views of school students and senior management are absent here due to my research focus on the experiences of teachers. Nevertheless, their experiences are important factors in the discussion around surveillance practices in schools and need to be meaningfully explored in order that we can gain a wider, and deeper, understanding of these complex issues.

How do school staff feel that the atmosphere and culture of school are influenced by the use of technology and technologized surveillance tools?

What was found and its implications

This study found a high degree of anxiety, unease and distrust amongst participants regarding the use of surveillance technologies. A central motivation for undertaking this study was my own experience of expanding surveillance technologies in schools, my unease at this and a frustration at the seeming acceptance of colleagues regarding this issue. I do not feel my belief that teacher colleagues were either indifferent or apathetic regarding this issue to have been unreasonable as I am unaware of any examples of organised opposition to the installation of surveillance technologies either on an individual school basis or through agreed union action. This made the research diaries and interviews surprising to me; whilst support for such technologies were often stated initially, a deep disquiet soon emerged from below those calm surfaces. I found these results genuinely unexpected and surprising, and feel they are worth detailed exploration in a further study. A key element here is the fact that whilst many school management structures are based on cultures of discipline and control, for the individual classroom teacher supporting the educational and pastoral needs of a group of children, the core focus is on care. Marx has stated that an element common to all systems of total control is for

the 'authority to deny individuals the right to control information about themselves while maintaining full control over information about the authority itself.' (Marx, 2016, p.320). Unfortunately, the lack of information, control and meaningful right of reply regarding surveillance technologies in schools described by participants, sounds dispiritingly like the system Marx describes.

Lyon has stated that 'one key problem with contemporary surveillance is its myopic focus on control, which quickly excludes any concern with care.' (Bauman & Lyon, 2013, p.37). This seems to make a nice connection back to the work of Ivan Illich and his focus on care, friendship and the development of convivial practices. One implication of this study is that an increasing prevalence of surveillance tools in schools may be causing significant distress amongst staff and contributing to increasing difficulties with recruitment and retention. We have seen that the tools themselves are often not the primary cause of concern; the lack of understanding and control around who can use them, in which situations, and the lack of a meaningful right to respond, all appeared as significant issues.

Reviewing the research process

It is difficult to make meaningful generalisations from such a small sample size and it would have been helpful to have worked with a greater number of participants. Another difficulty faced was an anxious participant wishing to withdraw having completed and submitted a diary; I resolved this by destroying the material in question. I could have tried to persuade them otherwise and offer reassurances, as I certainly wished to include their relevant and useful contribution, however I believe this was the ethical position to take. Negotiating the fear felt by some participants became an unexpected,

yet highly significant, factor in this project.

However, the aim of this study was not to generalize but to explore and interpret, generating new ideas and understandings. Whilst my study had a small sample, it generated rich and interesting data. I feel that the focus on a complicated issue, through an equally complex theoretical framework, has been a strength. Illich's work is challenging, secondary literature is sparse, and there is no clear consensus around how to use his work. Whilst the process has been far from straightforward, I believe there was value in engaging with such nuanced questions and material.

When initially planning this project, I had hoped to identify possible solutions to issues around surveillance in schools. However, through my reading, reflection and engagement with the data from my study, I have come to realise that seeking solutions is out of the reach of individuals living and working within such surveillant environments. Instead, the practical question is around how we can respond to the difficulties of life within such a situation. In such a situation, I believe that Illich in his dual roles as both a philosopher and a working teacher, can help offer may forward.

How this thesis contributes to knowledge

This study makes a theoretical contribution to knowledge by offering a new definition of surveillance. I defined surveillance here as the situation where an individual or organisation is known to possess the *potential* to collect, create and retain information on an individual or group using technical or systematic means and regarding which the

individual or group has no clear right of access or challenge. It was not always clear whether actual surveillance was taking place, but the knowledge that an individual was *potentially* being surveilled was shown to generate significant stress.   The experiences of participants demonstrated that the *potential* to be surveilled was felt keenly, and with significant negative consequences.

By exploring surveillance in schools through a careful listening to schoolteachers, a clearer picture has emerged of the extent of surveillance practices in English schools and the distinctly negative impact on the individuals working there. New empirical knowledge has been generated regarding how teachers feel about surveillance in schools which helps to fill a gap in the literature regarding the physical experience of surveillance practices in contemporary English schools and the impact of teacher's feelings about their contemporary role. This study focussed on the experience of classroom teachers. Future research could build upon this by exploring the experience of surveillance practices amongst students and senior management. It would also be instructive to compare the views and experiences of individuals at different stages of their career.   An exploration of gendered issues around surveillance may also prove fruitful.

It would also be interesting to investigate the extent of observation and monitoring taking place within a specific environment (i.e., whether CCTV cameras are in working order, emails are indeed monitored and tracked etc.) and to compare this with how the system is *perceived* by those who work there.

This study contributes to Illich scholarship by applying his theoretical tools to exploring a contemporary issue and through a wider engagement with his writings. By exploring some of the challenges Illich set his readers, and applying his theoretical frameworks to a contemporary question, new ways of looking at surveillance schools have emerged here.

Illich has much to offer contemporary thinking and his work has been undeservedly neglected. By using Illich we can explore and understand complex questions in new ways and obtain fresh perspectives. In addition to undertaking an empirical study, I have engaged with Illich's less familiar work including unpublished essays, interview transcripts and speeches. In this way I hope to have contributed to Illich scholarship. Future research could build upon this by applying Illich's work to other contemporary questions and engaging with a wider range of his publications, broadcasts and uncollected material. Illich's work on establishing a grammar of silence needs to be explored in more detail and this approach could be used profitably in exploring other contemporary issues. Pennsylvania State University have recently released a collection of Illich's work, making many early essays accessible. It is to be hoped that they continue this programme and make Illich's later writings available in a similar format.

Furthermore, my research has significantly altered the way I teach, support students in my classes and view my role. I had not expected my thesis to make a direct contribution to the classroom practice of myself or my colleagues, yet it has done so in my own case. Illich's focus on rebuilding convivial space, and Lees' practical suggestions for using silence in schools, have opened fresh avenues of inquiry for me as a teacher. Additionally, the process of conducting the research has changed my view of the teacher's role and my own practice. I was surprised, and shocked, at the level of anxiety which lay just beneath the surface for my colleagues regarding the issue of surveillance in schools. Whilst I was cognitively aware of the issues and my own views, I had not considered my own feelings about them. This course had prompted me to consider my views andexperiences at a significantly deeper level.

During the pandemic I remained working in school with smaller groups of children and

this presented the opportunity to begin implementing Lees' suggestions around silence. These were tentative, yet well received by students and I would be keen to continue to explore and develop a practical methodology which could be shared with colleagues. The students were receptive, and I had positive feedback from them regarding these sessions. In conversations with colleagues, the possibility of developing classrooms imbued with the contented silences described by Lees has excited some interest. I hope that this study may provide a small contribution in this area by exploring ways in which we can link silence and conviviality in schools. This would be an example of the counterfoil research Illich hoped others would undertake.

Dangerous Knowledge

One theme to emerge as this project developed was the idea of dangerous knowledge. I gradually became aware of this as several colleagues, (initially keen to take part), started to drop away. Whilst interested in discussing surveillance in schools, and concerned at this growing trend, they were fearful that any contributions would somehow '*get back*' to their employers. Later, when reading the participants' concerns, listening to recorded statements about their worries and typing them into this document, I have been forced to engage with these issues in a manner more intense than anticipated. These fears permeate down into my own experience. Having started this project feeling secure in my professional role, I have begun to question whether certain forms of knowledge can indeed be dangerous.

Writing in 1978, Johnstone considered ideas of dangerous knowledge. For him 'schools maintain the hegemony of the dominant class and its ideology through selecting out the dominant meanings and excluding counter-ideologies.' (Johnstone, 1978, p.112). When children attend schools where CCTV is present in every corridor and, increasingly, where lessons are filmed and recorded, the ideology that such continuous surveillance is proportionate and normal is being implicitly taught. For Johnstone, it is in this way that the world view of the dominant class is 'presented as the natural, the normal, the taken-for-granted.' (ibid). Engaging with 'anomalous knowledge' (ibid) can therefore give rise to serious difficulties.

However, Meylakhs (2011) contrasts the notion of dangerous knowledge with a warning against 'dangerous ignorance' (Meylakhs, 2011, p.243). Whilst he was writing about sex education, his warning is equally relevant here; exploring questions of surveillance in schools is uncomfortable and risky, yet there is a far greater risk in a *dangerous ignorance*

if we ignore these growing trends. For Ball, sociological 'knowledge can be 'dangerous' in two quite distinct senses' (Ball, 1980, p.375). Firstly, knowledge of power, and how power structures are maintained, can be inherently dangerous. Secondly, some sociological knowledge 'undermines or subverts *itself*,' (ibid). The issues raised in undertaking this study are largely in the former category, yet there are suggestions of the second too; having started this EdD with the aim of developing my work as a teacher, I have had to consider issues which make me question continuing within the role and, indeed, the profession.

Conflicting expectations have also arisen around the nature of this professional doctorate. Czerniawski identifies the tensions existing between values of doctoral research and the 'marketability' of EdD courses (Czerniawski, 2017, p.151); I am unclear regarding the marketability and professional advantage to a classroom teacher in researching dangerous knowledge. Yet there are certainly other rewards to be gained, including a more nuanced understanding of a complex situation and the opportunity to explore a single issue in significant depth. The situation is probably different for me as an established teacher rather than for someone at an earlier stage in their career and seeking to increase their level of employability.

Conclusion

In this chapter I have discussed the extent to which my main research question has been answered, reviewed the research process and considered the contribution to knowledge and implications of this study. The unexpected emergence of the idea of *dangerous knowledge* has also been noted and considered.

In addition, I should acknowledge that completing this EdD thesis has influenced my own

beliefs and practice as a schoolteacher. Spending such a significant amount of time reading Illich and educational research, and reflecting upon my own values, experiences and beliefs has had a significant impact on my own positionality and professional practice.

Schools are extremely busy places with few opportunities to pause and reflect. Completing this EdD has necessitated finding time to read and consider educational writings and to reflect upon my own views and experiences over a period of several years. In turn, this has resulted in an acknowledgement that the key element of the teaching role which I have enjoyed has reduced as I have advanced in the profession and gained promotions; namely, the opportunity to work with individual children and small groups. When I began this course, my role meant that I spent less time with children than ever before as my daily work focussed on management and included significant numbers of meetings with parents, staff and outside agencies. It became increasingly difficult to balance this management role with the requirements of the doctorate and I stood down from my position and took a job as a teacher designing and implementing literacy interventions for children with identified needs.   Whilst the main reason for this move was in order to focus on completing this thesis, other benefits emerged.

Moving to spend more time working with individual children has enabled me to identify and focus on the individual learning needs of specific children, devise and implement an appropriate strategy, and note the improvement in their engagement and attainment. Ironically, such a demotion has led to my being far more useful and productive in supporting the children in my care and created a significantly more enjoyable working life. One of the major elements to result from this EdD for me personally, has been the sustained opportunity to reflect and to then act upon those reflections.

Chapter 8: Final Remarks

Illich declined to give specific recommendations around how we should respond to questions posed by our increasingly technologized world. The last line of his final published book states clearly his hope that 'nobody takes what I said for answers.' (Illich & Cayley, 2005, p.229). When Cayley suggested that such comments could be heard as a counsel of despair, Illich replied:

> *'No! Of hedonism. I know only one way to transform us – us meaning always those whom I can touch and come close to – and that's deep enjoyment of being here alive at this moment, and a mutual admonition to do it. . . Let's celebrate, really celebrate! Enjoy consciously, ritually, openly, the permission to be alive at this moment – with all our pains, and with all our miseries.'* (Cayley, 1992, p.282)

This powerful statement connects with the views expressed by participants around what they wanted to achieve and experience in their work with children. It was clear that many participants felt frustrated at the ways they were expected to engage with children in their care; approaches which seemed more akin to a Fordist factory than the 'austere playfulness' of Barbara Duden's house, (Illich, 2002ii, p.235). For Ellul, whilst there may potentially be responses to these issues, currently 'there is not even a beginning of a solution, no breach in the system of technical necessity. Any solutions I might propose would be idealistic and fanciful,' (Ellul, 1964, p.xxxi). The task of correctly understanding the nature and scope of the technological world we inhabit is essential for Ellul for as 'long as the first stage of analysis is incomplete, as long as the problems are not correctly stated, it is useless to proffer solutions.' (Ellul, 1964, p.xxxii).

Shortly before his death, a very frail Jacques Ellul, speaking at a conference with Illich, stated that he had learned that he needed to:

> '*leave the intellectual sphere in order to grasp the importance of life, for each of us*, (and to) *grasp that each life is essential, so that I had to be close to each "neighbor" with humility*,' (Ellul & Illich, 1995, p.232)

Interestingly, the pandemic provided an unexpected corrective to many of the practices described here. Whilst schools remained open throughout, they offered stand-alone sessions for students, as it was difficult to predict which students and staff would be attending on different days. Technology in schools increasingly came back under the control of the classroom teacher with the use of visualisers in classrooms, documents shared online, and lessons conducted via zoom becoming standard practice. Lesson observations by senior staff and formal inspections by Ofsted were severely curtailed.

In recent years there has been some evidence of increasing resistance to CCTV and surveillance technologies in schools (Carlisle 2018), alternative approaches to punitive disciplinary policies being explored (Parsons 2018) and indications that a growing number of schools are rejecting such behavioural monitoring systems and adopting a more 'trauma-informed' approach (Miller 2020). Personally, my sessions during the pandemic included collecting and planting tree seeds, weaving corn dollies, reading books aloud and making and flying kites, (with mixed aeronautical success). These activities engaged the children, and the usual classroom noise was replaced by companionable silence - frequently giving way to interesting class discussions on a wide variety of topics. In 1990, Illich wrote that 'Sadly, but without nostalgia, we must acknowledge the pastness of the past.' (Illich, 1990, p.1). There is no room for nostalgic musing on the schools where I first worked. Whilst this is certainly not the conclusion to my thesis I had envisioned when starting this course, I rather feel that Illich and Ellul would have approved.

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<u>Appendix I: Seven Questions Burton et al recommend researchers consider before undertaking research.</u>

Burton et al's (2009) seven questions allowed me to consider these methodological questions within a clear structure and were extremely helpful in supporting me to develop a reasonably coherent piece of research.

#	*Question*	*Interpretive*	*Positivist*	*Response*
1	How is reality defined? (Ontology)	In this paradigm reality is seen as a construct, it is 'multi-dimensional and ever changing.'	In a positivist approach reality is independent from the observer and an 'objective, rational' reality that is 'to be discovered.'	The multitude of ways in which surveillance technology has been explored, described, constructed and re-constructed, led me to conclude that I would adopt an interpretive paradigm.
2	How does the researcher perceive themselves in relation to the research setting? (Positionality)	Within this approach, the process of research is '*underpinned by democratic principles*.' It is also acknowledged that the researcher is part '*of the research*	A positivist position on this question is that the researcher is both '*objective and independent*.'	As I am a full-time schoolteacher, I am inherently part of the research setting I wish to explore. I am unable to make any claims of true objectivity or independence.

		setting and is affected by it.'		
3	What is the purpose and aim of the research?	The purpose is to explore '*different perspectives*' that may lead to '*deeper knowledge and understanding of human behaviour and relationships*.' As such, qualitative research methods should be employed.	The focus is on the generation of a hypothesis and the subsequent search to prove or disprove that hypothesis. Such hypotheses are '*derived from theories*' and '*submitted to empirical tests for verification or rejection*.'	As my research will effectively consist of two teachers (myself and the participant) discussing technology in school, there is a sense in which we will be co-constructing the data. As such, I cannot claim any objective stance and my rationale is clearly interpretivist as I work to gain a deeper understanding of the situation.
4	How is knowledge created? (Epistemology)	'*Knowledge is constructed from multiple perspectives*.' In an interpretive approach '*subjectivity and bias is*		As a schoolteacher with more than 20 years' experience, I cannot but acknowledge my own subjectivity and unavoidable bias.

		acknowledged and declared.'		
5	What role does theory play?	In an interpretive paradigm theory is viewed as continually developing. Theory is '*central to the research process'* and develops from an interaction between '*professional perspectives and the data gathered*.'	From a positivist paradigm, the conceptual framework in which the research is rooted is the deductive method.	There will undoubtedly be epistemic uncertainty in my conclusions as it is not possible to know the full range of experiences and opinions of school staff around technologized surveillance. An interpretive paradigm is again indicated as the being the most appropriate.
6	What are the criteria for 'good' research?	Burton et al describe good research in this paradigm as being characterised by '*credibility and trustworthiness*,' as having '*internal validity*' and for the findings to be	In contrast, under a positivist paradigm, good research is characterised as being '*reliable'*, able to be generalised and as having statistical significance.	Clearly, my research will not be best analysed using quantitative methods and as such will not have statistical significance. I will aim to produce findings which will have credibility and a sense of internal consistency and validity.

		translatable '*across similar settings.*'		
7	What ethical issues need to be considered?	Research must be underpinned by key ethical considerations of voluntary participation, informed consent, anonymity of participants and a focus on protection from potential harm.	Research must be underpinned by key ethical considerations of voluntary participation, informed consent, anonymity of participants and a focus on protection from potential harm.	Whilst both paradigms require a high ethical standard, Burton et al suggest that an interpretive paradigm gives '*voice and ownership to the research participants.*' I am unsure of the extent to which it would be meaningfully true for my study for give ownership to the participants, however it is certainly my aim to allow the voice of classroom teachers to be sought, listened to and placed on record.

Adapted from Burton et al (2009) p.61–62.

Appendix II: Interview Schedule

- What incidents and people intimately connected with the experience stand out for you?

- How did the experience affect you? What changes do you associate with the experience?

- What feelings were generated by the experience?

- What thoughts stood out for you?

- What bodily changes or states were you aware of at the time?

- Have you shared all that is significant with reference to the experience?

Adapted from Moustakas (Moustakas, 1994, p. 116)

Appendix III: Ethics Protocol

<table>
<tr><td rowspan="5"></td><td colspan="2">(For EdRESC use only)

Application No:</td></tr>
<tr><td>Chairs action (expedited)</td><td>Yes/ No</td></tr>
<tr><td>Risk level

-if high refer to UREC chair immediately

Cont. Review Date</td><td>High/ low

/ /</td></tr>
<tr><td>Outcome (delete as necessary)</td><td>Approved/ Declined/ Amend/ Withdrawn</td></tr>
</table>

FACULTY OF ARTS AND HUMANITIES

Education Research Ethics Sub-committee

APPLICATION FOR ETHICAL APPROVAL OF RESEARCH

ALL PARTS OF THIS FORM MUST BE COMPLETED IN FULL IN ORDER TO GAIN APPROVAL. Please refer to the guidance notes.
Part A: PROJECT INFORMATION

1.	Investigator *Note1*	If Student, please name your Director of Studies or Project Advisor: Professor J Quinn
	Martin Edmonds	Course / programme: EdD Thesis Stage School/directorate (if not PIoE):
	Contact Address: Tel: E mail: martin.edmonds@plymouth.ac.uk	
2.	Title of research: **How is the atmosphere and culture of school influenced by the use of surveillance tools and behaviour management systems?**	
3.	Nature of approval sought (Please tick relevant boxes) *Note 2* a) PROJECT:☐ b) TAUGHT PROGRAMME (max. 3 years):☒ *If a,) please indicate which category:*	

	Funded/unfunded Research (staff)☐	*Undergraduate* ☐	
	MPhil/PhD, ResM, BClin Sci, EdD☒	*Or Other (please state)* ☐	
	Taught Masters ☐		
4.	1. Funding body (if any): 2. If funded, please state any ethical implications of the source of funding, including any reputational risks for the university and how they have been addressed. *Note 3*		
5.	a) Duration of project/programme: *Note 4*	b) Dates:	
6.	Has this project received ethical approval from another Ethics Committee? Yes ☐ No ☒ 4. Committee name: 5. Are you therefore only applying for Chair's action now? Yes☐No ☒		
7.	Attachments (if required): • Application/Clearance (if you answered Yes to question 6)Yes☐No ☐ • Information sheets for participants Yes☒No ☐ • Consent forms Yes☐No ☐ • Sample questionnaire(s)Yes☐No ☐ • Sample set(s) of interview questionsYes☐No ☐		

- Continuing review approval (if requested) Yes☐No ☐
- Other, please state:

---

*1. Principal Investigators are responsible for ensuring that all staff employed on projects (including research assistants, technicians and clerical staff) act in accordance with the University's ethical principles, the design of the research described in this proposal and any conditions attached to its approval.

*2. In most cases, approval should be sought individually for each project. Programme approval is granted for research which comprises an ongoing set of studies or investigations utilising the same methods and methodology and where the precise number and timing of such studies cannot be specified in advance. Such approval is normally appropriate only for ongoing, and typically unfunded, scholarly research activity.

*3. If there is a difference in ethical standards between the University's policy and those of the relevant professional body or research sponsor, Committees shall apply whichever is considered the highest standard of ethical practice.

*4. Approval is granted for the duration of projects or for a maximum of three years in the case of programmes. Further approval is necessary for any extension of programmes.

8	**If you are staff**, are there any other researchers involved in your project? Please list who they are, their roles on the project and if/how they are associated with the University. Please include their email addresses. (*Please indicate School of each named individual, including collaborators external to the Faculty/University)*:
	If you are a student, who are your other supervisors? Professor Jocey Quinn & Dr Cath Gristy Have you discussed all ethical aspects of your research with your Director of Studies prior to submitting this application? Yes☒No ☐
9	Type of application: Initial application☒ Resubmission with amendments ☐ Version Number:Amendment to approved application *☐ Renewal☐

	* For full details of the amendments procedure, please see the guidance notes
10	Summary of aims, objectives and methods (max 250 words)

| | Aim: To seek the views of education workers in respect to my thesis that technologized school behaviour management and surveillance systems influence the atmosphere and culture of a school. These issues will be explored through the conceptual framework developed by Ivan Illich in his critique of tools.My aim is to explore the influence of these surveillance tools and behaviour management systems and to inquire into how staff and students navigate and negotiate such environments.

Methods: Potential participants will be given a diary in which to record their reflections. Participants will be asked to use the diary, (an unlined notebook), to record any thoughts, views or particular examples of their experiences of school surveillance and behaviour systems over a period of 6 weeks before returning to me. The diaries will contain prompts to support participants in structuring responses i.e. 'If you have encountered or recalled an incident relevant to this study, consider the following questions: What have I seen / experienced? How does it make me feel? What do I think about it? What may be its impact on staff, students or the school environment?'

Participants will be asked to refrain from including identifying details in order to keep the responses in the diary as anonymous as possible. However, if participants choose to return the diaries there is a request for them to include contact details if they are willing to engage in a follow up interview. |
|---|---|
| 11. | When do you need/expect to begin the research methods for which ethical approval is sought?

September 2018

How long will this research take and/or for how long are you applying for this ethical approval?

10 years in order to provide opportunities for follow-up research using this data. |
| 12 | What will be the outcomes of this project?

The research findings will be used to support my EdD thesis. |

13	Is the project subject to an **external** funding bid?	☐Yes *(please complete questions 14- 18)*
		☒No *(please go to Part B)*

14	Bid amount:

15	Bid status:
	➢ Not yet submittedSubmission deadline:
	➢ Submitted, decision pending
	➢ Bid granted

16	University Project Finance Team costing approved with Dean's signature?
	Yes:☐. No: ☐(Please contact the University Project Finance Team as soon as possible)

17	Has the funding bid undergone peer review?	☐ Yes ☐ No

18	Partners & Institutions:		
	Name (including title)	School:	Institute / Organisation:

Part B: ETHICAL REVIEW STATEMENT

The purpose of this statement is to clarify whether the proposed research requires ethical clearance through an Ethics Protocol. Please read the relevant section of the guidance notes before you completeyour statement.

Please indicate all the categories into which your proposed research fits:

	Data collection / analysis involved:	**Action required:**	
1	This study does not involve data collection from or about human participants.	• *Complete this Ethical Review Statement and add a brief (one page) description of your research and intended data*	☐
		collection methods. *Part C not required.*	

2	This study involves the analysis or synthesis of data obtained from/about human subjects where such data are in the public domain (i.e. available in public archives and/or previously published)	• *Complete this Ethical Review Statement and add a brief (one page) description of your research, the nature of the data and intended data collection methods. Part C not required.*	☐
3	This study involves the analysis of data obtained from/about human participants where the data has been previously collected but is not in the public domain	➢ *Complete this Ethical Review Statement* ➢ *Please complete Part C – Ethical Protocol*	☐
4	This study draws upon data already collected under a previous ethical review but involves utilising the data in ways not cleared with the research participants	• *Complete this Ethical Review Statement* • *Please complete Part C – Ethical Protocol* • *Submit copy of original ethics protocol and additional consent materials (if relevant) attached.*	☐
5	This study involves new data collection from/about human participants	• *Complete this Ethical Review Statement* • *Please complete Part C – Ethical Protocol* • *Submit copies of all information for participants AND consent forms in style and format appropriate to the participants together with your research instruments.*	☒

Please Note: Should the applicant wish to alter in any significant regard the nature of their research following ethical approval, an application for amendment should be submitted to the committee together with a covering letter setting out the reasons for the amendment. The application should be made with reference to one or more of the categories laid out in this document. 'Significant' should beinterpreted as meaning changing in some fundamental way the research purposes and processes in whole or part.

Please indicate how you will ensure that this research conforms to Plymouth University's Research Ethics Policy - *The Integrity of Research involving Human Participants.* Please complete each sectionwith a statement that addresses each of the ethical principles set out below. Please note that you should provide the degree of detail suggested. Each section will expand to accommodate this information.

Please refer to Guidance Notes when completing this section.

1	**Informed consent**
	Please attach copies of all draft information / documents, consent forms, questionnaires, interview schedules, etc intended for the participants, and list below. When it is not possible to submit research instruments (e.g. use of action research methods) the instruments should be listed together with the reason for the non-submission. Please also indicate the attachments in Question A7.
	- Diary insert #1: context of the study - Diary Insert # 2: first page - Diary Insert # 3: final page
2	**Openness and honesty**
	It is generally accepted that research with human participants would not involve deception. However if this is not the case, deception is permissible only where it can be shown that all three of the following conditions have been met in full.
	☐ *Deception is completely unavoidable if the purpose of the research is to be achieved.* ☐ *The research objective has strong scientific merit.* ☐ *Any potential harm arising from the proposed deception can be effectively neutralised or reversed by the proposed debriefing procedures.*

1	*If deception is involved, applicants are required to provide a detailed justification and to supply the names of two independent assessors whom the Committee can approach for advice. Please attach relevant documentation and list below.*

3	**Right to withdraw** *Please provide a clear statement regarding what information has been provided to participants regarding their right to withdraw from the research.*

	Below is an extract from the first insert (also attached) that will be included in the diaries. This highlights the participants right to withdraw:
	
	The Right to Withdraw
	
	   ➤ **Accepting this diary does not commit you to taking part in the study. If you decide that you no longer wish to record your views or, having done so, do not wish to share your views with me, you are entirely free to do so. Please only return the diary if you consent to the contents being used in my thesis report. Please use the stamped, addressed envelope provided to return the diary.**
	
	   ➤ **You are under no obligation to complete the diary or to return it to me**
	
	   ➤ **If you choose to return the diary to me as part of my research, you have the right to withdraw up until the point where I start to analyse the submitted data.**
	  • **If you have any questions please contact me directly at martin.edmonds@plymouth.ac.uk or contact my supervisors at Plymouth University: Professor Jocey Quinn jocey.quinn@plymouth.ac.uk and Dr Cath Gristy cath.gristy@plymouth.ac.uk**

4	**Protection from Harm** *Indicate here any vulnerability that may be present because of the:* • *participants e.g. children or vulnerable adults.*

- *nature of the research process.*

If you tick any box below, please indicate in "further information" how you will ensure protection from harm.

Does this research involve:

Children	☐
Vulnerable adults	☐
Sensitive topics	☐
Permission of a gatekeeper in place of consent from individuals	☐
Subjects being academically assessed by the researcher	☐
Research that is conducted without full and informed consent	☐
Research that could induce psychological stress and anxiety	☒
Intrusive intervention (eg, vigorous physical exercise)	☐

Further information:

It is possible that asking school staff to explicitly consider the surveillance tools used in their place of work may provoke anxiety. I have therefore included details of the Education Support Partnership who offer a 24-hour counselling service to school employees.

There is also the likelihood that participants may worry that their responses may be traced back to them and create difficulties in their place of work.

In the diary inserts I have encouraged participants to be mindful not to include any details that may help to identify them or their place or work. Additionally, I have stated that any such details that are included in the diary will be anonymised in my research.

Do ALL researchers in contact with children and vulnerable adults have current DBS clearance? *If Yes, Please give disclosure number(s)*	Yes:☒. No: ☐ N/A: ☐

Name	*Number*
Martin Edmonds	

	If No, please explain:

5	External Clearance
	I undertake to obtain written permission from the Head of any external institutions (school, social service, prison, etc) in which research will be conducted. (please check box)
	☐
	I do not feel it would be ethical to seek the written permission of Head teachers / Principals for their employees to take part in this research as it may put those staff at significant risk if their responses are seen to be in any way critical of current policy or encourage participants to simply record responses in line with school policy. Additionally, as I am not seeking school-specific information and am asking participants to engage in their own time, I do not feel it is appropriate to seek the permission of their employer.

6	**Participant/Subject Involvement**
	Has this group of participants/subjects already been the subject of research in the current academic year? Yes ☐ No ☒

7	**Payment**
	Please provide details of any payments, either financial or in kind, made to participants for participation, compensation for time given, etc.
	No payment will be offered.

8	**Debriefing**
	Please provide a clear statement regarding debriefing of participants following their involvement in the study. This should include:
	• *when debriefing will take place,*
	• *who will debrief the participants,*

	a. *how the debriefing will take place, and*
	b. *what information has been provided to participants regarding debriefing.*
	The back page of the diary will include the statement below:

Thank you for taking part in my research. If you consent to the information you have recorded in this diary being used in my research, please post the diary to me at the address below.

By returning the diary to me, you are consenting for me to use the information you have provided in my research. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way.

If you would like to receive details of the results of my research, please include a contact address, telephone number or email address.

Contact details:_____.

I would appreciate the opportunity to conduct a follow-up interview to discuss the comments you have made in this diary.

If you consent to being contacted to arrange an interview, please indicate below:

I consent to be contacted to arrange an interview about the information I have recorded in this diary:

Name: (please print)

_____.

Signed:_____. |

	Date:_____.
9	**Dissemination of Research** *Please provide a clear statement regarding what information has been provided to participants regarding dissemination of this research.*
	Both the introductory insert and the final diary insert refer to how the information provided may be disseminated: Diary insert 1: **Diary insert 1:** There has been a significant increase in technological surveillance approaches in our schools under including CCTV, widespread collection of children's biometric data and close monitoring of personal IT devices. As part of a doctoral course with Plymouth University, I am exploring the extent of these approaches in schools, their aims and their potential impact on staff and students. I would greatly appreciate your views and experiences and would like to include your ideas in my research. Please use this diary to record any thoughts, ideas or experiences you have about the benefits or problems of the use and extend of school surveillance and behaviour systems. The pages are unlined in case you wish to include sketches or diagrams as well as writing. Informed Consent and the Right to Withdraw • Try not to include any details (i.e. names, dates or locations), which may make you, other individuals or a specific school able to be identified. In the event that any such details are included, I will ensure that the information is either unused or anonymised in my final report. As these issues are relevant to many schools, it is unlikely that you would be able to be identified from your comments. • Please keep this diary safe whilst you are using; consider the comments you have written and how it should be kept to avoid others reading it without your agreement. If you choose to return the diary to me, I confirm that it will be stored in a lockable cabinet and safely destroyed after a period of ten years. • Accepting this diary does not commit you to taking part in the study. If you decide that you no longer wish to record your views or, having done so, do not wish to share your views with me, you are entirely free to do so. Please only return the diary if you consent to the contents being used in my thesis report. Please use the stamped, addressed envelope provided to return the diary. • You are under no obligation to complete the diary or to return it to me. • My final thesis report may include some of the information you have provided. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way. • If you choose to return the diary to me as part of my research, you have the right to withdraw up until the point where I start to analyse the submitted data. • If you have any questions please contact me directly at martin.edmonds@plymouth.ac.uk or contact my supervisors at Plymouth University: Professor Jocey Quinn jocey.quinn@plymouth.ac.uk and Dr Cath Gristy cath.gristy@plymouth.ac.uk

Diary insert 3:

The back page of the diary will include the statement below:

Thank you for taking part in my research. If you consent to the information you have recorded in this diary being used in my research, please post the diary to me at the address below.

By returning the diary to me, you are consenting for me to use the information you have provided in my research. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way.

If you would like to receive details of the results of my research, please include a contact address, telephone number or email address.

Contact details: _____.

I would appreciate the opportunity to conduct a follow-up interview to discuss the comments you have made in this diary.

If you consent to being contacted to arrange an interview, please indicate below:

I consent to be contacted to arrange an interview about the information I have recorded in this diary:

Name: (please print)

_____.

Signed: _____.

Date: _____.

10	**Confidentiality**
	Please provide a clear statement regarding what information has been provided to participants regarding confidentiality issues.
	The diary inserts contain clear information and advice regarding the need for confidentiality:

There has been a significant increase in technological surveillance approaches in our schools under including CCTV, widespread collection of children's biometric data and close monitoring of personal IT devices. As part of a doctoral course with Plymouth University, I am exploring the extent of these approaches in schools, their aims and their potential impact on staff and students.

I would greatly appreciate your views and experiences and would like to include your ideas in my research.

Please use this diary to record any thoughts, ideas or experiences you have about the benefits or problems of the use and extend of school surveillance and behaviour systems. The pages are unlined in case you wish to include sketches or diagrams as well as writing.

Informed Consent and the Right to Withdraw

- Try not to include any details (i.e. names, dates or locations), which may make you, other individuals or a specific school able to be identified. In the event that any such details are included, I will ensure that the information is either unused or anonymised in my final report. As these issues are relevant to many schools, it is unlikely that you would be able to be identified from your comments.

- Please keep this diary safe whilst you are using; consider the comments you have written and how it should be kept to avoid others reading it without your agreement. If you choose to return the diary to me, I confirm that it will be stored in a lockable cabinet and safely destroyed after a period of ten years.

- Accepting this diary does not commit you to taking part in the study. If you decide that you no longer wish to record your views or, having done so, do not wish to share your views with me, you are entirely free to do so. Please only return the diary if you consent to the contents being used in my thesis report. Please use the stamped, addressed envelope provided to return the diary.

- You are under no obligation to complete the diary or to return it to me.

- My final thesis report may include some of the information you have provided. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way.

- If you choose to return the diary to me as part of my research, you have the right to withdraw up until the point where I start to analyse the submitted data.

- If you have any questions please contact me directly at martin.edmonds@plymouth.ac.uk or contact my supervisors at Plymouth University: Professor Jocey Quinn jocey.quinn@plymouth.ac.uk and Dr Cath Gristy cath.gristy@plymouth.ac.uk

| 11 | **Ethical principles of professional bodies** |

| *Where relevant professional bodies have published their own guidelines and principles, these must be followed and the current University principles interpreted and extended as necessary in this context. Please state which (if any) professional bodies' guidelines are being utilised.* |
| |

12	**Declarations:**

For all applicants, your signature below indicates that, to the best of your knowledge and belief, this research conforms to the ethical principles laid down by Plymouth University and by the professional body specified in C.11 above.

For supervisors of PGR students:

As Director of Studies, your signature confirms that you believe this project is methodologically sound and conforms to university ethical procedures.

	Name(s)	Signature (electronic is acceptable)	Date
Applicant	Martin Edmonds	Martin Edmonds	03/06/2018
Other staff investigators:			
Director of Studies (if applicant is a postgraduate research student):			

Completed Forms should be forwarded by email to Faculty Research Ethics Administrator (artsresearchethics@plymouth.ac.uk).

Meetings dates are published on the intranet (Information for the Education Research Ethics Sub- Committee). In order to be considered at the next available meeting, applications must be receivedno later than the last day of the preceding month.

You will receive approval and/or feedback on your application within 2 weeks of the meeting date atwhich the committee discussed this application.

Appendix IV: Diary inserts

Diary Insert 1:

There has been a significant increase in technological surveillance approaches in our schools under including CCTV, widespread collection of children's biometric data and close monitoring of personal IT devices. As part of a doctoral course with Plymouth University, I am exploring the extent of these approaches in schools, their aims and their potential impact on staff and students.

I would greatly appreciate your views and experiences and would like to include your ideas in my research.

Please use this diary to record any thoughts, ideas or experiences you have about the benefits or problems of the use and extend of school surveillance and behaviour systems. The pages are unlined in case you wish to include sketches or diagrams as well as writing.

Informed Consent and the Right to Withdraw

- Try not to include any details (i.e. names, dates or locations), which may make you, other individuals or a specific school able to be identified. In the event that any such details are included, I will ensure that the information is either unused or anonymised in my final report. As these issues are relevant to many schools, it is unlikely that you would be able to be identified from your comments.

- Please keep this diary safe whilst you are using; consider the comments you have written and how it should be kept to avoid others reading it without your agreement. If you choose to return the diary to me, I confirm that it will be stored in a lockable cabinet and safely destroyed after a period of ten years.

- Accepting this diary does not commit you to taking part in the study. If you decide that you no longer wish to record your views or, having done so, do not wish to share your views with me, you are entirely free to do so. Please only return the diary if you consent to the contents being used in my thesis report. Please use the stamped, addressed envelope provided to return the diary.

- You are under no obligation to complete the diary or to return it to me.

- My final thesis report may include some of the information you have provided. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way.

- If you choose to return the diary to me as part of my research, you have the right to withdraw up until the point where I start to analyse the submitted data.

- If you have any questions please contact me directly at martin.edmonds@plymouth.ac.uk or contact my supervisors at Plymouth University: Professor Jocey Quinn jocey.quinn@plymouth.ac.uk and Dr Cath Gristy cath.gristy@plymouth.ac.uk

Diary insert # 2:

Information at the top of the first page where participants are encouraged to record their views and experiences:

Recording your experiences and views:

If you have encountered or recalled an incident relevant to this study, consider the following questions:

* What have I seen / experienced?
* How does it make me feel?
* What do I think about it?
* What may be its impact on staff, students or the school environment?

Diary insert # 3: Insert for the back of the diary:

Thank you for taking part in my research. If you consent to the information you have recorded in this diary being used in my research, please post the diary to me at the address below.

By returning the diary to me, you are consenting for me to use the information you have provided in my research. This will be used as work submitted toward a doctoral degree and may subsequently be used in articles submitted for publication. Please only return the completed diary to me if you give consent for the information you provide being used in this way.

If you would like to receive details of the results of my research, please include a contact address, telephone number or email address.

Contact details: _____.

I would appreciate the opportunity to conduct a follow-up interview to discuss the comments you have made in this diary.

If you consent to being contacted to arrange an interview, please indicate below:

I consent to be contacted to arrange an interview about the information I have recorded in this diary:

Name: (please print)
_____.

Signed: _____.

Date: _____.

Appendix V: *Acknowledging Hospitality*: Engaging with Illich's friends and colleagues.

Text has been removed due to Copyright restrictions.

Appendix VI: Examples of two approaches to coding and an extract from a transcript

Appendix VI: Example of Initial attempt at coding

The diagram above shows my initial attempt at creating all three coding levels (modelled on the approach recommended by King, Horrocks & Brooks 2019 p.210). In this first attempt at coding, I followed King et al's recommendation to construct the descriptive codes by describing 'what is of interest in your participants' accounts, rather than seeking to interpret its meaning.' (ibid. p.203). Listening to the interview transcripts and reading the diaries, I identified several topics raised by participants and recorded them as the descriptive code above.

The second stage was to create an interpretive code by 'grouping together descriptive codes that seem to share some common meaning, and creating an interpretive code that captures it.' (ibid. p.205). It seemed clear that the examples raised by participants could be grouped as examples of either email communication or social media, so I used these two categories as my interpretive code.

The third stage of coding was to identify 'the overarching themes that characterise key concerns in your analysis.' These should be 'built upon the interpretive themes' but be 'at a higher level of abstraction than them.' (ibid. p.209). Both emails and social media could be classed as electronic communication, so this became my overarching theme.

However, when I began to use this model to analyse the participant's words, it became clear that this first attempt at coding was far too simplistic. Following discussion with my supervisors, and a re-reading of King et al., I completed a second analysis as detailed below.

Overarching Theme

Interpretive Code

Descriptive Code

Privacy

Actual Surveillance taking place

Potential for surveillance taking place

Emails

Workload

Staffroom

Facebook and parents

Facebook and social media

Appendix VI: Second attempt at coding

As I re-read the diaries, and listened afresh to the interviews, it became clear that the issues raised by participants were far more distinct and nuanced than a discussion around electronic communication. Participants did speak of being concerned about surveillance via emails or social media, but expressed similar concerns about CCTV in the staffroom and corridors. These issues went to the heart of my own researches into surveillance studies and the questions around real and potential surveillance.

With real and potential surveillance as the interpretive code, it became clear that the overarching theme was the question of privacy rather than electronic communication.

I felt that this second attempt at coding was more effective in capturing the subtleties of the participants' words and allowing a more detailed analysis of what had been shared.

Whilst my initial attempt at coding had been unsuccessful, it was a useful process to have undertaken as it highlighted to me the many different ways in which material can potentially be analysed.

Example of Descriptive Coding Stage

Interview extract	Comments	Descriptive codes
'*that back story isn't recorded on the* ==*progress data base*== *– their data looks very poor because of that and I find myself worrying a lot of the time that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the results are going to be like and what I need to do to make it look like I've done interventions that actually may not be that helpful to the child ultimately.*'	Student progress recorded on searchable databases, and these are referred to rather than the individual students' exercise book or exam paper.	Progress data
'*I find myself* ==*worrying a lot of the time*== *that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because* ==*I'm worrying*== *what the results are going to be like and what I need to do to make it look like I've done interventions that actually may not be that helpful to the child ultimately.*'	Level of anxiety demonstrated by use of the words 'worrying a lot of the time' and later 'I' worrying.'	Worry
'*I find myself worrying a lot of the time that those students aren't going to pass and* ==*that's going to be a problem*== *– not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the results are going to be like and what I need to do to make it look like I've done interventions that actually may not be that helpful to the child ultimately.*'	Whether the student passes or fails an assessment is not seen as an accurate evaluation of that students' work or ability but as a 'problem' for the teacher.	Problem

'I find myself worrying a lot of the time that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the ==results== are going to be like and what I need to do to make it look like I've done interventions that actually may not be that helpful to the child ultimately.'	As the individual students' results directly affect the league tables and Ofsted inspections, they are significant to that child's teacher and the whole school.	Results / League Tables
'I find myself worrying a lot of the time that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the results are going to be like and what I need to do to ==make it look like I've done interventions== that actually may not be that helpful to the child ultimately.'	Suggestion of activity undertaken not to benefit the individual student but to meet the requirements of an audit culture.	Audit culture
'I find myself worrying a lot of the time that those students aren't going to pass and that's going to be a problem – not just because that child's not going to do well and fulfil their potential but also because I'm worrying what the results are going to be like and what I need to do to make it look like I've done interventions that actually ==may not be that helpful to the child ultimately.'==	Concerns that the steps to be taken to comply with the audit culture may not only be of little practical use but may be unhelpful to the individual child.	Counterproductivity