City Research Online

City, University of London Institutional Repository

Citation: Taylor, E. (2018). Recent developments in surveillance: An overview of body-worn cameras in schools. In: Deakin, J., Taylor, E. & Kupchik, A. (Eds.), The Palgrave International Handbook of School Discipline, Surveillance, and Social Control. (pp. 371-388). Palgrave Macmillan. ISBN 978-3-319-71558-2

This is the accepted version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/21564/

Link to published version:

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

City Research Online: http://openaccess.city.ac.uk/ publications@city.ac.uk

Do not cite. Full text found in: Deakin, J., Taylor, E. and Kupchik, A. (2018) *The Palgrave International Handbook of School Discipline, Surveillance, and Social Control*. pp.371-388.

Recent developments in surveillance: An overview of body-worn cameras in schools

Emmeline Taylor

Introduction: Background to school surveillance

The field of surveillance studies has grown exponentially as awareness of mass surveillance, prejudicial profiling, human rights abuses, data mining, and anti-democratic intrusions have materialised. Edward Snowden's revelations about the National Security Agency (NSA), persistent phone hacking scandals, violated credit card details, and the leaking of data from dating websites, have all contributed to revealing the huge amounts of sensitive information being compiled by large organisations, both public and private, the fragility of their claims to protect it, and the devastating consequences of breaches. Each, in turn, momentarily permits a glimpse through the veil of mundanity that drapes over surveillance practices, inviting us to question the immateriality of the vast networks of data flows we are increasingly enmeshed in. "If you have nothing to hide, you have nothing to fear" has become a tedious leitmotif in response to influxes of new surveillance technologies but the catalogue of cracks in the veneer of vapidity suggests otherwise. This chapter focuses on a population that arguably most would accept have nothing to hide – schoolchildren - in order to challenge the pervasive rhetoric that the sea of surveillance devices they are awash in are inconsequential and benign.

The scope and sophistication of new technologies and their impact on behaviour have generated an increased awareness of, and, somewhat paradoxically, scrutiny of surveillance practices. Much has now been written by scholars grappling with the rapidity of developments in the education sphere. Several books explore the amalgam of technologies now routinely used in schools (e.g. Monahan and Torres, 2010; Taylor and Rooney, 2017; Taylor, 2013). They look at the drivers, materiality, impacts and experiences of school-based surveillance. Other analyses examine the factors underpinning the emergence of school

surveillance locating it in broader socio-political contexts. For example, some perceive militarization and corporatisation of state schools to be key factors (e.g. Casella, 2006; Saltman and Gabbard, 2003), although recognising these processes are themselves embedded in broader sociocultural shifts, such as the neoliberalising of education policy (e.g. Hope, 2015; Lewis, 2003; Taylor, 2013).

Other analyses are more concerned with particular examples of surveillance technologies, and while more often than not they are located in an appreciation of a wider nexus of school based surveillance assemblages, they seek to expound upon a specific technology or practice and the concerns that they have ostensibly been introduced to assist with. Just some of these include exploration and analysis of surveillance cameras (e.g. McCahill and Finn, 2010; Taylor, 2010a; 2011; Warnick; 2010), digital fingerprint scanning (e.g. Leaton-Gray, *this collection*; Taylor, 2010b), geolocation tagging such as radio frequency identification (RFID) tagging (e.g. Ema and Fujigaki, 2011; Taylor, 2017a), dataveillance and learning analytics (e.g. Williamson, 2017), health surveillance (e.g. Gard and Lupton, 2017; Rich, 2017; Williamson, 2015), randomised suspicionless drug and alcohol testing (e.g. Taylor, 2017b), online 'anti-radicalisation' software (Taylor, *forthcoming*) and school-based internet usage and e-safety (e.g. Barnard-Wills, 2012; Hope, 2015; Steeves, Regana and Shade, *this collection*). This chapter focuses on the relatively recent phenomenon of body cameras being worn by school personnel in the US and the UK and, drawing on the expanding literature, uses it to propel discussion about the broader issues that surveillance introduces in to schools.

The chapter is divided into three main parts. The first section provides a brief overview of just some of the numerous surveillance technologies and techniques that are used in schools around the world. There are many, and too numerous to do justice in a single chapter. As indicated above, they include surveillance cameras, geotracking, random alcohol and drug testing, finger scans, dataveillance, and wearable technologies. In order to provide a little more than a cursory account of each, this chapter focuses on body-worn cameras (BWC), whilst recognising that they sit alongside many more apparatus and processes. Illustrations are international in scope, but largely drawn from the US and the UK as key consumers of school surveillance technologies. It should, therefore, not be presumed that all examples can be found in all locales; cultural specitivities and context are important when analysing the materiality of surveillance. Following on from this, the second half of the chapter examines what is thus far known about the impacts, effects and affects of school surveillance. There

have been surprisingly few empirical studies but those that have been conducted provide vital data to highlight that, far from inconsequential, the intensity of school surveillance has a huge impact on schoolchildren, schools and society. The contribution of the chapter is twofold. First, it harnesses what is currently known about surveillance practices in schools, highlighting a particularly new development in the form of BWC. There has been a lot written about school surveillance in recent years; as the techniques and technologies for monitoring in schools have multiplied and grown, so too has the scholarly research documenting and examining such developments, but school-based BWC has yet to attract much academic attention. Second, it serves to explicate the structural impacts of schools that are increasingly permeated by surveillance technologies, paying particular attention to the social sorting proclivity of school surveillance, and the potential for a school-to-prison-pipeline.

Developments in school surveillance

Multiple technologies, attending to the visual, biometric, spatial, online and algorithmic capturing and processing of data, have emerged in schools internationally. For example, digital fingerprinting, location tracking (including radiofrequency identification (RFID) and GPS), suspicionless drug and alcohol testing, police sniffer dogs, a range of surveillance cameras (including overt, covert, wall-mounted and wearable cameras), online monitoring, iris scanning, airport-style security arches and hand-held metal detector wands. Due to the constraints of space, the following section explicates one of the more recent developments that has not yet received much scholarly attention - representing expansion in visual surveillance, school body-worn cameras.

Wall-mounted and body-worn surveillance cameras

Beyond early observations that schools were one of several ‘enclosed institutions of discipline’ (Foucault, 1977: 215) (alongside hospitals, prisons, asylums) embedding the potentiality for human surveillance in their structural and architectural design, the school as a site of technological surveillance only really began to attract attention when closed circuit television (CCTV) appeared in school classrooms, corridors and canteens, as well as on school buses. A perfect exposition of ‘surveillance creep’, early camera systems were defended on the basis that they were being installed to protect staff and students from

intruders, but were soon being deployed for school discipline and teacher performance. For example, a survey conducted by the Association of Teachers and Lecturers (ATL, 2010) found that although 98 per cent of teachers claimed CCTV was installed for security purposes, 50 per cent reported it being used in other ways such as to monitor pupil behaviour. CCTV has continued to be installed in schools around the world.[1]

Since the emergence of CCTV seemingly eroded generalised resistance to visual monitoring in schools, there has been a continual deluge of new surveillance technologies flooding the now lucrative education market. Continuing with the focus on audiovisual surveillance technologies, a relatively recent development is body-worn cameras being deployed in schools with various school-based personnel beginning to wear them. For example, a school district in southeastern Iowa in the US has provided school principals at each of the district's eight school buildings with a body camera (Friedersdorf, 2015). Although, in the US, body-worn cameras (BWCs) are largely being introduced to school campuses by School Resource Officers (SROs), school-based police officers (see chapters by Brent and Wilson; Nolan; Brown *this collection*) to capture misdemeanours and record interactions with students, staff and parents. For example, it has been reported that the El Paso Independent School District in Texas has equipped all of its SROs with body cameras (Martinez, 2016). In the UK, it is not school administrators or police officers, but rather teachers that are pioneering the use of wearable audiovisual devices. The number of schools that are using the technology is unknown, as the Department for Education apathetically issued a statement to say that it was simply ‘a matter for the schools’ (cited in Pells, 2017: n.p.) but there has been media coverage of at least two schools trialling their use.

Given that it is a relatively recent phenomenon, there has been very little published research on body-worn cameras being worn by school personnel and the issues that this introduces to education. Furthermore, very little is known about how teachers and students feel about their use. A survey of 600 teachers, commissioned by the Times Education Supplement (TES) in the UK, found that more than a third (37.7 per cent) reported that they would be willing to wear a body camera in school, and two thirds (66.4 per cent) claimed that they would feel

---

[1] There are some notable examples where school-based surveillance cameras have met considerable resistance, such as in Australia, due to a belief that the cameras are symptomatic of hypersecuritisation that is not beneficial in educational settings (Rooney, 2010; Taylor, 2017c). Such examples of the culturally mediated reception of surveillance apparatus are important to understand the heterogeneous and uneven dispersal of school surveillance practices globally.

safer if they knew that there was a camera recording (cited in Bloom, 2017). Of note, the survey revealed that 35.1 per cent of teachers that were willing to wear a camera so that they could monitor and gain evidence of student (mis)behaviour, but just 19.5 per cent said that they would do so in order to improve their teaching. Similar disparities have been found in relation to wall-mounted surveillance cameras whereby teachers welcomed them to monitor students, but were less favourable if they believed the focus would be turned on them. As argued elsewhere, 'the legitimacy of surveillance is often premised on a shared understanding of who, what, where, and for what reason an individual or group is a valid target of surveillance' (Taylor, 2013: 11). Thus far there have been no published studies examining student perceptions of BWC.

Reasons for body-worn cameras in schools

In the absence of academic literature and official reports on how and why BWC is being used in schools, media reports reveal two recurrent reasons that appear to be offered for their introduction (e.g. Bloom, 2017; Pells, 2017; Sabur, 2017). These can be generalised into the following two justifications: (1) **Prevention** (to deter bad behaviour amongst the student body), and, (2) **Evidence** (to capture footage should any misbehaviours, illegal or otherwise, occur for the purposes of disciplinary action). These are both very similar to reasons that were put forth when CCTV was being rolled out to schools across England and Wales (Taylor, 2010a). It is important to unpack these explanations in order to provide an alternative narrative to the presumption of appropriateness and effectiveness that often accompanies the introduction of surveillance technologies in schools. The following section briefly examines each in turn, drawing on available findings from studies on visual surveillance in schools and the use of BWC in other contexts, such as policing, in order to understand whether they really are the best solution to the issue/s.

(1) ***Preventing bad behaviour***

The first, relating to prevention, calls forth long established debates relating to the deterrence capabilities of video recording. The premise is that a rational thinking individual will decide not to commit a violation if they know that they will be caught on camera, and therefore they perceive that there is a greater likelihood of being apprehended and someone ('a capable guardian') taking action against them. It is certainly possible that body-worn cameras could

discourage some behaviours, but research demonstrates that the deterrence capability of visual surveillance is only really pertinent for some instrumental and premeditated actions, such as motor vehicle theft in terms of crime (Gill et al, 2005; Welsh and Farrington, 2002). As Welsh & Farrington, 2009: 716) reported in their systematic review of 44 evaluations of CCTV:

> The results suggest that CCTV caused a modest (16%) but significant decrease in crime in experimental areas compared with control areas … largely driven by the effectiveness of CCTV schemes in car parks … Schemes in most other public settings had small and nonsignificant effects on crime'.

In the context of the classroom, if a student is intending to commit a premeditated violation such as a theft, they are likely to seek out a place where there are no teachers, SROs, and certainly no cameras. Research findings from the few empirical studies of school CCTV have reported that the cameras simply displace school misbehaviour to locations that are not under surveillance, technological or humanistic, rather than deter it altogether (e.g. Taylor, 2013), and this notion of displacement appears to be writ large in the evaluations of public CCTV (Welsh and Farrington, 2008). For example, in one study of CCTV in schools it was found that students reported that they would smoke and play truant in locations that they knew were not within the field of vision of the cameras (Taylor, 2013). In this respect, visual surveillance doesn't *prevent* misbehaviour but rather alters conduct by inviting transgressions that cannot be seen on a camera ('tactical displacement'), or by displacing it elsewhere ('spatial displacement'). In this respect the presence of surveillance, whether cameras, fingerprinting or something else, encourages heteronomous decision-making whereby behaviour is an outcome of perceived rewards or punishments rather than critical thinking or evaluation.

In relation to other types of prohibited behaviour, particularly expressive behaviours, such as aggression and violence, there are findings from the CCTV literature that can, again, be drawn upon to understand the potential capabilities of BWC. Expressive crimes, and particularly those involving drugs or alcohol, have been found to be far less impacted by the presence of cameras than other types of crime because, typically, they are not calculated and assailants are much less likely to be in a rational mind-set and therefore not responsive to the cameras (see Short and Ditton, 1998; see also Allard et al, 2008). Of course school violence

should be taken very seriously and all efforts made to prevent it. However, the evidence from CCTV in schools, and the use of BWC in other contexts such as policing[2], suggest that the cameras are not an effective solution to violence. In fact, there are reasons to believe that mainstreaming the occurrence of school personnel wearing cameras could actually exacerbate bad behaviour. For example, their introduction normalises the potentiality of student-teacher interactions becoming violent at any time which in itself can be counterproductive, sending a message to students that aggressive responses are expected from them. Furthermore, through a complex process of criminalisaing students and simultaneously eroding trust between teachers and students, school BWC is a risky development in school discipline. Of particular concern, is the way that surveillance technologies can usurp alternative strategies for addressing unruly behaviour. This could include strategies of restorative justice (see Deakin and Kupchik, *this collection*), using additional teaching assistants in particularly challenging classes and schools, and establishing methods to resolve conflict in a more sustainable and meaningful way.

(2) *Providing evidence*

The second reason that appears to be relatively common in response to the use of body-worn cameras in schools, is a need to capture footage of any incidents should they occur. This is also somewhat problematic as not only does it broadcast a message that transgressions are expected, but it also misunderstands the type of footage typically captured from body-worn cameras. There is a long established body of research illustrating an implicit ‘camera view bias’ whereby viewers are inclined to interpret footage from the perspective of the camera, or the person wearing the camera; ‘When video allows us to look through someone’s eyes, we tend to adopt an interpretation that favors that person’ (Stoughton cited in Williams et al. 2016). Lassiter et al. (2005: 28) have highlighted the ‘robust and pervasive’ biasing effect of camera perspective in studies of videotaped confessions. They point to the ‘reality’ gleaned from multiple studies that if a camera is focused solely on a suspect confessing during an interrogation it ‘influences not only judgements of voluntariness but also perceived likelihood of guilt and sentencing recommendations; perceived likelihood of guilt is greater and

[2] A meta-analysis of multi-site, multi-national randomized controlled trials of police BWC, including a total population of over 2 million officers, and 2.2 million police officer-hours, found that officers were 15% more likely to experience an assault when wearing the cameras. The results suggest that the cameras could potentially aggravate interpersonal conflict. This has largely been attributed to officer discretion on when to activate the camera, similar to what has been proposed in schools (Ariel et al, 2016; Taylor, 2016).

sentencing recommendations are more severe'. The positioning of the camera and its field of vision has been found to impact on the interpretation of events. In relation to BWC, this has been demonstrated through simulations of police-public encounters that highlight the degree to which footage is subjectively interpreted, and usually to the detriment of the person/s being filmed (Williams et al. 2016). In the simulations the body movements of the officer rendered footage jerky and irregular which made it look as though the person being filmed was becoming animated and aggressive. However, when viewed from another angle, it is clear that there is no aggression and the participant is, in fact, dancing. The fact that it is the police officer wearing the camera means that the viewer is most likely to be empathetic to their perspective, and so this is likely to be the case in schools too, irrespective of whether it is SROs, teachers or school principals. The issue with erratic and jumpy footage as a result of natural body movements has already been raised in court cases using BWC evidence. For example, as part of an evaluation of Arizona Police Department's implementation of BWC, one officer reported that lawyers had claimed that the officer's natural body movements had made a suspect appear to be swaying more than they actually were. While the officer refuted this by saying that the video footage is clear when someone is intoxicated, he acknowledged that such situations could prevent the use of video footage in future investigations (Roy, 2014). In relation to schools, the use of BWC by teachers or police introduces an inherent power imbalance that could translate into the (mis)interpretation of footage. Visual school surveillance has been 'actively sought out as a neutral observer to verify events and elicit the truth' (Taylor, 2012: 227) but research has shown that, far from objective, BWC footage is embedded with partiality and bias. A broader concern relating to the justification of the need to continuously compile evidence, is that students are turned into potential suspects – they are assailants in waiting – and this can have a very negative impact on classroom dynamics and student-teacher interactions.

Regulation of school BWC in the UK and US

It might be presumed that the sensitive nature of recording the everyday actions of schoolchildren would summon strict regulatory frameworks and protocols, but in fact these these appear to be relatively tolerant of school-based surveillance in many countries. In the UK for example, the Information Commissioner's Office (ICO), the independent authority responsible for the 'data privacy' of individuals, have confirmed that the use of body-worn cameras for teachers is compliant with the Data Protection Act's 1998 principles (which have

previously been problematized several years ago for their inability to adequately regulate the use of school CCTV cameras (Taylor, 2010a) and digital fingerprinting (Taylor, 2010b)). The main issue with the DPA 1998 is that for it to be operable in the vast array of scenarios it covers, the principles become somewhat hollow. For example, principle 3 of the Data Protection Act 1998 states that 'Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.' However, there is much room for subjective interpretation relating to what is considered to be 'excessive'. For the proponents of video surveillance, recording everyday interactions is not considered excessive, but rather it is required in order to capture those unpredictable events. This might be particularly the case for police officers who have normalised the wearing of a camera as part of their uniform alongside their radio, handcuffs, and even weaponry. However, this overlooks the unique settings and characteristics of schools. It could be argued that the use of body-worn cameras *is* excessive when the majority of interactions and behaviours captured will be of children and not involve any criminal activity. Another principle of the DPA 1998 outlines; 'Personal data shall be accurate and, where necessary, kept up to date'. This again is interesting in relation to police BWC, particularly in the light of camera view bias outlined above. Can the partiality of the images be considered accurate? In England and Wales there are various other articles and statutes that ostensibly govern the use of surveillance practices. The Protection of Freedom Act 2012 (PoFA) introduced a range of measures relating to surveillance (and notably in relation to schools by outlawing the fingerprinting of students without parental consent), including a surveillance camera code of practice. The PoFA also creates the statutory appointment of a Surveillance Camera Commissioner under section 34(1) and a Surveillance Camera Code of Practice (SCCP), published as guidance under section 32(1) of PoFA. The code has been built upon 12 guiding principles, which provide a framework of good practice that includes existing legal obligations (including the processing of personal data under the Data Protection Act 1998 and a public authority's current duty to adhere to the Human Rights Act 1998). The first principle is that a surveillance cameras system must be in 'in pursuit of a legitimate aim and necessary to meet an identified pressing need'. As with the DPA 1998 principles, there is clearly some ambiguity regarding what some would consider to be a legitimate aim and a *pressing* need when it comes to school personnel wearing BWC.

In the US, the regulation of surveillance cameras is somewhat different. Constitutional interpretation has evolved in the courts, materializing in a number of laws and executive

orders dealing specifically with the concept of data protection. However, two developments of significance, the Privacy Act 1974 and the Computer Matching and Privacy Act are only applicable to personal information held by the federal government and do not have any authority over the collection and use of personal information held by other private and public sector entities, including schools (for further discussion of the socio-legal aspects of US privacy statute see Rosen and Santesso, *this collection*). In relation to CCTV cameras, the American Civil Liberties Union (ACLU) has argued that schools using CCTV are 'unconstitutionally intruding on the legitimate expectation of privacy of students, faculty, staff, and visitors', and are in effect 'engaging in unreasonable search without a warrant and without probable cause or reasonable suspicion' (cited in Warnick, 2010: 320). However. irrespective of this declaration, it is unlikely that school BWC will be ruled as unconstitutional in the US courts. More specifically relating to BWC in schools, the American Civil Liberties (ACL) (Stanley, 2017: n.p.) outlined the following position:

> [B]ody cameras present a real threat to students' privacy and contribute to the creation of an environment in schools of pervasive surveillance, with all the bad lessons that creates for the future freedom-minded citizens that we want to mold.

Compounding the issue of regulation in the US is that, historically, under the Fourth Amendment, young people are denied liberty rights because these rights presuppose the capacity to make informed choices, whereas it is presumed that the limited cognitive and emotional capacities of young children do not provide for this – they are seen as as 'subjects in the making' (Best, 2007: 12). Furthermore, there has been a huge push for all frontline officers to be issued with body-worn cameras in the US, and since it is SROs in the US that are predominantly wearing the cameras this is likely to go unchallenged.[3] The temptation for police officers to use footage gained from body cameras to 'investigate' wrongdoings is clear, as happened with the introduction of CCTV. The main issue is that once captured, issues that would have once been resolved through internal disciplinary procedures can

[3] Following several high profile fatal shootings of unarmed African Americans by police in the US, demands were made for all frontline police officers to wear body cameras as a matter of course. In response, in 2015 President Barack Obama pledged funding to introduce BWCs in all US states.

become a criminal matter, inviting formal legal action. There is little discretion[4] if the cameras are used in concert with zero tolerance policies towards school behaviour. Forging a conduit between the school and criminal justice is examined in greater detail below.

Impacts and effects

It is difficult to pinpoint the precise impacts and effects of school-based surveillance. Its introduction is often part of a shift in the climate of the school, or society more broadly. As schools have become a repository for multiple wide ranging societal issues (from terrorism to drug use, obesity to bullying), they have increasingly become responsibilised to address them (Taylor, *forthcoming*). Finding themselves ill-equipped to respond unaided to the numerous requirements and demands, the private sector has increasingly been on hand to provide a range of sophisticated and high-tech 'solutions' often with surveillance attributes. For example, a growing anxiety that schoolchildren were becoming radicalised or exposed to extremist ideologies resulted in schools being tasked, legally in some countries[5], to prevent schoolchildren from being drawn into terrorism. As a result 'anti-radicalisation' software was introduced to monitor students' online activities. The impact of this specific scrutiny on individual children might be difficult to isolate and empirically measure. However, the more generalised outcome of conjuring up a climate of suspicion, fear and mistrust is not difficult to imagine. Similarly for school BWC. The harm arising from the intensification of neoteric technological surveillance in the school may be relatively imperceptible or inconsequential to (most) individuals, but cumulative and substantial in its impact on particular groups or society over time. It might, for example, contribute to intensifying social divisions, engender inequalities and worsen student outcomes, by increasing the number of exclusions from mainstream education, for example. The increasing blurring of boundaries between the

[4] Several studies have highlighted racial disparities in the application of "mandatory" punishments (Curran, 2016; Giroux, 2003; Hoffman, 2012; Johnston, 2000; Skiba et al., 2000) suggesting that discretion is still used in schools with zero tolerance policies, but that this is dependent upon the demographics of the student involved, particularly ethnicity. For example, drawing upon national data collected by the U.S. Department of Education, Curran (2016) found the increase in suspension rates for black students as a result of zero tolerance was approximately three times the size of that for white students. Similarly, Skiba et al. (2000) reported that African Americans received harsher punishments than their peers, often for subjectively defined offenses. Of note, is that research has shown that students are aware of this disparity. For example, Kupchik and Ellis (2008: 549) found that 'African American students perceive less fairness and consistency of school rules and their enforcement than do White students.'

[5] In the United Kingdom, under section 26 of the Counter-Terrorism and Security Act 2015, 'The Prevent duty'[5] was introduced which mandates that specified authorities (including schools) must, 'in the exercise of their functions, have due regard to the need to prevent people from being drawn into terrorism'.

criminal justice system and school disciplinary policies and practices ultimately deprives students of their human rights in relation to their right to education, the right to proportionality in punishment, and the right to freedom of expression.

Social sorting and the criminalisation of schoolchildren

School surveillance often papers over complex underlying social divisions and issues with crude techno-fixes that attempt to command conformity and compliance. However, such responses can result in unintended consequences, often alienating some children and creating an atmosphere of suspicion and mistrust in the classroom. When technologies typically associated with law enforcement are introduced into schools it is little wonder that research has found that some schoolchildren feel criminalised (McCahill and Finn, 2010; Rios, 2011; Taylor, 2010a; 2011). It is easy to imagine how attending school on a campus equipped with metal detectors and surveillance cameras, that is patrolled by police officers (even if they are renamed 'school resource officers'), and subscribes to school policies that involve randomised drug and alcohol screening with zero tolerance approaches to discipline, might result in schoolchildren wondering how they are perceived by society if such castigatory systems are deemed necessary. Howard Becker's labelling theory is well versed in the sociological understanding of deviance, and more recent research has found that the criminalisation process, augmented by school surveillance technologies, can result in a self-fulfilling prophecy, whereby students come to act in accordance with the way in which they believe they have been labelled or prejudged (Rios, 2011; Taylor, 2013).

The use of BWC in schools also places a certain preemptive responsibility on teachers and school staff to activate the cameras when they perceive something worthy of capture is going to materialise. This could summons 'the classifying drive of contemporary surveillance' known as 'social sorting' (Lyon, 2003: 13), whereby schoolchildren are placed into categories of risk based on abstracted and incomplete data. Their profile is then used as a proxy measure for likely views, values and intentions. Given the disparities in discipline and punishment along lines of ethnicity, surveillance can be seen to perpetuate inequalities. The activation of cameras could prompt a negative reaction since the subtext of their use is that the school personnel believes the student to be in some way problematic or dangerous. Cameras have been perceived as a 'symbol of mistrust' (Author/s, date) and so mobilizing power by activating the camera could potentially be considered to be an incendiary act.

School-to-prison pipeline

The more ephemeral impacts of school surveillance outlined above – an ambient climate of suspicion, and feeling criminalised – can have some very real and tangible structural consequences. The use of school surveillance technologies in concert with onsite criminal justice personnel and disciplinary regimes can set in motion serious, yet unintended, consequences such as the emergence of what Devine (1996) has termed the 'school to prison pipeline' (STPP) (see also Devlin and Gottfredson; King, Rusoja, and Peguero, *this collection*), a metaphoric conduit that has emerged between US schools and the criminal justice system. Scholars have argued that a range of policies and practices in the US education system increasingly filter students from the classroom to the prison. In other words, it is a process of criminalizing youth that is carried out by disciplinary policies and practices within schools, in which surveillance technologies such as CCTV and BWC are of course implicated, that put students into contact with law enforcement.

While the STPP is facilitated by multiple trends in contemporary education, it is most directly attributable to a trio of interrelated developments: the use of surveillance technologies associated with law enforcement; the delegation of school discipline to onsite criminal justice personnel such as SROs, and the expansion of zero tolerance policies which ultimately criminalises relatively minor, unintentional, or subjectively defined infractions. For example, the police handling of disciplinary issues escalates minor, non-violent infractions into violent, criminal incidents that have negative impacts on students. By way of example, The Gun-Free Schools Act 1994, mandated a 12 month suspension for any student caught bringing a weapon to school. However, the definition of 'weapon' was very loosely defined, yet broadly interpreted, resulting in some students being suspended for relatively minor acts. For example, a six year old was suspended for taking a camping utensil into school (Urbina, 2009). As patterns of discipline in schools begin to mirror law enforcement models, increased suspensions, expulsions, and elevated drop-out rates, have materialised, particularly amongst those from non-White backgrounds. Commenting on the STPP in the US, Kim, Losen and Hewitt (2010: 2) note that 'thirty years ago, Black students were approximately twice as likely to be suspended as their white counterparts; today, they are more than three times as likely to be suspended'.

Conclusion: Intensifying and normalising surveillance in schools

Addressing the seeming necessity to monitor schoolchildren in ever finer granularity, this chapter has explored the relatively recent use of body-worn surveillance cameras in schools, whilst recognising that there are many other technologies and practices currently being used. The majority of the examples stem from the USA and the UK, but it is important to recognise that other countries also have their own culturally-mediated examples of school-based surveillance practices. Ellis (cited in Bloom, 2017: n.p.) asserts:

> When you introduce new technology, if people haven't had experience of it already, people tend to regard it as negative, initially. But as they get used to it, people get less negative.

This may well be the case, but this sentiment ignores the power dynamics clearly evident when school teachers, principals and SROs are sanctioned to wear body-cameras for the general collection of visual data. Certainly, surveillance has an ability to appear ordinary and quickly fade into the background, quietly habituating new ways of thinking and being. But such habituation should be problematized, and the tacit compliance with regimes of surveillance should not be seen as a sign of endorsement by those that are subject to it. In following Walter Benjamin's (1996) observation that exceptions readily become the rule, the danger here is that the provisional and exceptional techniques that originate within the school become functionally indispensable in the surveillance age, and translated into modes of governance. Integrating neoteric surveillance technologies in concert with education habituates young people to accept increased monitoring and scrutiny whilst simultaneously concealing any pernicious effects. Exacerbating the issue, the impacts are structural and longitudinal which renders them relatively opaque.

There remains a need for further research on this topic, particularly empirical and in-depth analysis of the impacts, effects and affects on schoolchildren and teachers. Although it has been recognised that schoolchildren are the subjects of a disproportionate amount of surveillance, the materiality of their existence in the surveillance age and the transformations it engenders in schools have been marginalised comparative to the experiences of adults. A

handful of studies have examined the impact of surveillance technology in schools, particularly in relation to the use of surveillance cameras (McCahill and Finn, 2010; Taylor, 2010a; 2011) but the research is becoming perceptibly dated and, importantly, precedes some major developments in school surveillance technologies. Surveillance has an extraordinary ability to become the new normal. Thrift claims that 'much of the background of life is "second nature", the artificial equivalent of breathing' (Thrift, 2004: 584) and as surveillance technologies come to be regarded as 'mundane as the blackboard at the front of the classroom' (Taylor, 2013). They quietly rescript thoughts and behaviours, creating new school cultures. It is important to explore how students and teachers experience school-based surveillance, and what its impact on pedagogy and learning is. While the use of BWC might appeal as a novel techno-fix to school indiscipline, the projected outcomes of the subtle processes that it sets in motion; the criminalisation of minor infractions, the cultivation of mistrust and suspicion, and the impact on the privacy of students and staff, are too great to risk. Yet despite the evidence that alternative practices are likely to offer more positive outcomes in relation to school behaviour (see Kupchik and Deakin, *this collection*), the propagatory nature of surveillance means that in all likelihood, BWC will become increasingly commonplace in schools.

References

Allard, T.J., Wortley, R.K. and Stewart, A.L. (2008) 'The Effect of CCTV on Prisoner Misbehavior', *The Prison Journal* 88(3): 404-422.

Ariel, B., Sutherland, A., Henstock, D., Young, J., Drover, P., Sykes, J., Megicks, S. and Henderson, R. (2016) 'Report: increases in police use of force in the presence of body-worn cameras are driven by officer discretion: a protocol-based subgroup analysis of ten randomized experiments', *Journal of Experimental Criminology* [online first].

Barnard-Wills (2012) 'E-safety education: Young people, surveillance and responsibility', *Criminology & Criminal Justice*. 12(3): 239- 255.

Best, A.L. 2007. *Representing Youth: Methodological Issues in Critical Youth Studies*. NYU Press.

Big Brother Watch (2012) *Class of 1984; The extent of CCTV in secondary schools and academies*.

Bloom, A. (2017) 'Two-thirds of teachers would feel safer wearing a bodycam, TES survey shows', *Times Education Supplement (TES)*. Available at: https://www.tes.com/news/school-news/breaking-news/two-thirds-teachers-would-feel-safer-wearing-a-bodycam-tes-survey (accessed: 1 August 2017).

Casella, R. (2006) *Selling us the fortress*. London: Routledge.

Curran, F.C. (2016) 'Estimating the Effect of State Zero Tolerance Laws on Exclusionary Discipline, Racial Discipline Gaps, and Student Behavior', Educational Evaluation and Policy Analysis. 38(4): 647-648.

Devine, J. (1996) *Maximum Security: The Culture of Violence in Inner-City Schools*. University of Chicago Press.

Ema, A. and Fujigaki, (2011) 'How far can child surveillance go? Assessing the parental perceptions of an RFID child monitoring system in Japan', *Surveillance & Society* 9(1/2): 132-148.

Foucault, M. (1977) *Discipline and Punish: The Birth of a Prison*, London: Penguin Books.

Friedersdorf, C. (2015) 'Keep Body Cameras Off Public-School Educators', *The Atlantic*. 10 July 2015. Available at: https://www.theatlantic.com/education/archive/2015/07/keep-body-cameras-off-public-school-educators/398030/ (accessed: 9 July 2017).

Gard, M. and Lupton, D. 2017. 'Digital Health goes to School: Implications of Digitising Children's Bodies', In E. Taylor and T. Rooney (Eds) *Surveillance Futures: Social and ethical implications of new technologies for children and young people*. London: Routledge. 36-49.

Gill, M., Spriggs, A., Allen, J., Hemming, M., Jessiman, P., and Kara, D. (2005). *Control room operation: Findings form control room observations.* London: Home Office.

Giroux, H. (2003). Racial injustice and disposable youth in the age of zero tolerance. *Qualitative Studies in Education*, July-August 2003, Vol. 16, No. 4, 553-565.

Hoffman, S. (2012) ‘Zero Benefit: Estimating the Effect of Zero Tolerance Discipline Polices on Racial Disparities in School Discipline’, *Educational Policy*. 28(1): 69-95.

Hope, A. (2005) Panopticism, Play and the Resistance of Surveillance: case studies of the observation of student Internet use in UK schools. *The British Journal of Sociology of Education.* Volume 26, No. 3. pp 359-373.

Hope, A. (2015) ‘Governmentality and the ‘selling’ of school surveillance devices’, *The Sociological Review*, 63 (4): 840–857.

Kim, C.Y., Losen, D.J., and Hewitt, D.T. (2010) *The School-to-prison Pipeline*. NYU Press: New York.

Kupchik, A. and Ellis, N. (2008) ‘School Discipline and Security Fair for All Students? *Youth & Society*, 39(4): 549-574.

Lewis, T. (2003) ‘The surveillance economy of post-Columbine schools’, *Review of Education, Pedagogy, and Cultural Studies*, 25 (4): 335-55.

Lyon, D. 2003. *Surveillance as Social Sorting*, London: Routledge.

Martinez, A. (2016) ‘Privacy key as schools move to body cameras’, *El Paso Times*. 23 April 2016. Available at: http://www.elpasotimes.com/story/news/2016/04/23/privacy-key-schools-move-body-cameras/83446872/ (accessed 3 August 2017).

Mccahill, M. and Finn, R. (2010) 'The Social impact of Surveillance in Three UK Schools: “Angels”, “Devils” and “Teen Mums”, *Surveillance & Society* 7 (3/4): 273-89.

McMahon, S.D., Martinez, A., Espelage, D., Rose, C., Reddy, L.A., Lane, K., Anderman, E.M., Reynolds, C.R., Jones, A., and Brown, V. (2014) ‘Violence directed against teachers: results from a national survey’, *Psychology in the Schools*. 51 (7): 753–766.

Monahan, T. and Torres, R.D. (eds) (2010) *Schools under Surveillance: Cultures of Control in Public Education*. New Brunswick, NJ: Rutgers University Press.

Pells, R. (2017) ‘Teachers to start wearing body cameras to record pupils’ bad behaviour’, Independent. 8 February 2017. Available at: http://www.independent.co.uk/news/education/education-news/teachers-wear-body-cameras-record-pupils-bad-beaviour-video-trial-education-schools-a7568646.html (accessed: 9 July 2017).

Rich, E. (2017) ‘Childhood, Surveillance and mHealth surveillance’ In E. Taylor and T. Rooney (Eds) *Surveillance Futures: Social and Ethical Implications of New Technologies for Children and Young People*. Oxon: Routledge. 132-146.

Rios, V.M. (2011) *Punished: Policing the Lives of Black and Latino Boys*. NYU Press: New York.

Sabur, R. (2017) 'Teachers wearing body cameras to control students' behaviour in new trial', *The Telegraph* 8 Feb 2017. Available at: http://www.telegraph.co.uk/news/2017/02/08/teachers-wearing-body-cameras-control-students-behaviour-new/ (accessed: 3 August 2017).

Saltman, K.J. and Gabbard, D.A. (2003) *Education as Enforcement: The militarization & corporatization of schools.*

Short, E., and J. Ditton (1998). 'Seen and Now Heard - Talking to the Targets of Open Street CCTV.' *British Journal of Criminology* 38 (3), 404-428.

Stanley, J. (2017) 'Body Cameras on Police in Schools', American Civil Liberties Union. Available at: https://www.aclu.org/blog/free-future/body-cameras-police-schools (accessed: 19 July 2017).

Taylor, E. (2010a) 'I Spy with my Little Eye: The Use of CCTV in Schools and the Impact on Privacy', *The Sociological Review*. 58 (3): 381-405.

Taylor, E. (2010b). 'From finger-painting to fingerprinting: the use of biometric technology in schools', *Education Law Journal*. 4: 276-288.

Taylor, E. (2011) 'Awareness, understanding and experiences of CCTV amongst teachers and pupils in three UK schools'. *Information Polity; An International Journal of Government and Democracy in the Information Age*. 16 (4): 303-318.

Taylor, E. (2012) 'The Rise of the Surveillance School' In K. Ball, K. Haggerty and D. Lyon (Eds) *The Handbook of Surveillance Studies*. London: Routledge.

Taylor, E. (2013). *Surveillance Schools; Security Discipline and Control in Contemporary Education* Basingstoke: Palgrave Macmillan.

Taylor, E. (2016) 'Lights, Camera, Redaction… Police Body-Worn Cameras; Autonomy, Discretion and Accountability', *Surveillance & Society,* 14 (1)

Taylor, E. (2017a) 'Teaching us to be 'smart'? The use of RFID in schools and the habituation of young people to everyday surveillance' in E. Taylor and T. Rooney (Eds) *Surveillance Futures: Social and Ethical Implications of New Technologies for Children and Young People*. Oxon: Routledge. 67-78.

Taylor, E. (2017b) 'Drug testing in Australian Schools: A media discourse analysis', *Journal of Education Policy* [*online first*]

Taylor, E. (2017c). ''If I wanted to be on Big Brother, I would've auditioned'; Examining the affective impacts of CCTV in schools'. In E. Taylor and T. Rooney (Eds) *Surveillance Futures: the social and ethical impacts of new technologies for children and young people*. Oxon: Routledge. 19-35.

Taylor, E. and Rooney, T. (Eds) (2017) *Surveillance Futures: Social and Ethical Implications of ne technologies for children and young people*. Oxon: Routledge.

Thrift, N. 2004. "Movement-space: the changing domain of thinking resulting from the development of new kinds of spatial awareness", *Economy and Society*, 33 (4), 582-604.

Urbina, I. (2009) 'It's a Fork, It's a Spoon, It's a ... Weapon?', *The New York Times*. 11 October

Warnick, R. (2010) 'Surveillance cameras in schools: An Ethical Analysis,' *Harvard Educational Review*, 77(3): 317-343.

Welsh, B. C. and Farrington, D P. (2002) *Crime Prevention Effects of Closed Circuit Television: A Systematic Review*. Home Office Research Study 252. Home Office Research, Development and Statistics Directorate.

Welsh, B. C. and Farrington, D P. (2008) *Effects of closed Circuit Television Surveillance on Crime*, The Cambell Collaboration.

Welsh, B. C. and Farrington, D P. (2009) *Making Public Places Safer: Surveillance and Crime Prevention*. Oxford: Oxford University Press.

Williamson, B. (2015) 'Algorithmic skin: health-tracking technologies, personal analytics and the biopedagogies of digitized health and physical education', *Sport, Education and Society*: 20 (1). 133–151.

Williamson, B. (2017) 'Calculating children in the dataveillance school', In E. Taylor and T. Rooney (Eds) *Surveillance Futures: the social and ethical impacts of new technologies for children and young people*. Oxon: Routledge. 50-66.