

The rise of preemptive surveillance of children in England: Unintended social and ethical consequences

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14 Rise of pre-emptive surveillance

Unintended social and ethical consequences

AQ1

*Rosamunde Van Brakel*¹

Several authors (Beck, 1992; Feeley and Simon, 1992; Garland, 2001; Rose, 1998), in their own ways and with different nuances and emphases, have argued that a ‘risk society’ or a culture of control emerged at the end of the twentieth century. At the same time, there have been huge developments in information technologies, leading to what some term the ‘surveillance society’ (Wood, 2006). One of the results of these parallel developments is the emergence of the so-called pre-emptive or pre-crime turn in criminal justice (Donkin, 2014; Wall, 2010; Zedner, 2007). Inspired by Lyon’s (2001) definition of surveillance, pre-emptive surveillance can be defined as the systematic or targeted collection and processing of data of entities, which are used to make predictions about future harm on the basis of profiles, with the main goal of intervening before harm is done.

This chapter sets out to provide a socio-technical exploration of some of the main unintended social and ethical consequences of the implementation of pre-emptive surveillance practices in England and Wales in relation to children and youth. I focus on a case study from the RYOGENS (Reducing Youth Offending Generic Electronic National Solution) database and seek to (1) problematise the use of technological predictions from predictive interventions to big data approaches in relation to juvenile justice and social care; and (2) offer a more applied and empirical approach in comparison to somewhat disparate and broad theories in the area. I do so by bridging across surveillance studies, risk society and pre-emptive policy interventions in the broader sphere of criminal and social justice discourses. The chapter first explores the emergence of pre-emptive surveillance of children in England and, more specifically, the emergence of the RYOGENS database, before providing an overview of the main social and ethical consequences related to this database and pre-emptive surveillance in general.

‘Pre-emptive turn’

There has been little discussion of how visions of a pre-crime society, or the pre-emptive turn, are intertwined with the emergence of the surveillance society. Although several authors refer to surveillance (Garland, 2001; Zedner, 2010), the role of technology and (technological) agency has largely been ignored.

Moreover, the pre-crime society is explained in terms of uncertainty (Zedner, 2007). This chapter presents the converse argument that pre-emptive surveillance is not about controlling or taming uncertainty; instead, pre-emption ‘becomes a new (old) superstition, a courting of fates and furies in an attempt at one and the same time to know a determined future and to be able to reshape that determination in a god-like fashion’ (Elmer and Opel, 2008: 21). It can be seen as the imaginary of surveillant control, which is:

a fantastic dream of seeing everything capable of being seen, recording every fact capable of being recorded, and accomplishing these things, whenever and wherever possible, prior to the event itself ... it circulates as an effective mechanism in the technical evolution of control in postindustrial societies. (Bogard, 1996: 4–5)

It is about controlling not the present but the future.

In the pre-emptive surveillance logic, authorities can punish or intervene pre-emptively because they (think they) *know* the future and believe their prediction is always true (Bigo, 2010). The result is an unfettered and uncritical belief in the predictive powers of statistics and/or technology, which fails to recognise its limitations (Van Brakel and De Hert, 2011). This mind-set can be recognised in several criminal justice domains, including anti-terrorism strategies, policing and probation, as well as in youth justice and crime prevention in the form of early intervention strategies (Case and Haines, 2013; McCullough and Pickering, 2009; Van Brakel and De Hert, 2011; Zedner, 2007).

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The Emergence of ‘pre-emptive logic’ and the surveillance of children in England

According to Muncie and Goldson (2006), the most significant developments in the last decades in youth justice have been: the targeting of the non-criminal as well as the criminal within formal systems of justice; the persistent punitive incarceration of children, despite a ‘new’ rhetoric of youth-crime prevention, restoration and social inclusion; and finally, a concern with ‘what works’. This rhetoric can be traced back to the Audit Commission’s (1996) *Misspent Youth* report, in which the slogan ‘tough on crime, tough on causes of crime’ made its entrance. The report was empirically underpinned by the seminal longitudinal Cambridge Study of Delinquent Development (West and Farrington, 1973), which claimed to identify risk factors that increase the probability of offending and concluded that criminality can be prevented by implementing measures designed to counteract them. This is what Case and Haines (2008) have called the ‘Risk Factor Prevention Paradigm’.

Ten years after the *Misspent Youth* report, former prime minister Tony Blair asserted that there is ‘a very clear body of evidence that you can predict reasonably accurately the kids and the families that are going to be difficult in the future’.

It was clear to him that government policy should be directed at early intervention ‘pre-birth, even’. He also stated, in a clear illustration of pre-emptive logic:

If we are not prepared to predict and intervene far more early then there are children that are going to grow up in families that we know perfectly well are completely dysfunctional and the kids a few years down the line are going to be a menace to society and actually a threat to themselves. (Blair, 2006)

In parallel to this development in youth justice, child protection policy saw significant changes. The way in which information was shared between agencies and the provision of services for children in need became a high-profile issue in England following the death in 2000 of Victoria Climbié, a 9-year-old girl who died as a result of abuse and neglect, and similar cases. Several agencies involved knew the child was being abused, but no one took up the responsibility to intervene when the child was in danger. The public inquiry into the child’s death indicated that causes for this could be found in the chronic shortage of skilled staff and funding and bad coordination between the agencies involved (Laming, 2003).

The new Children Act of 2004 addressed this problem.² It emphasised even more strongly than its 1989 predecessor that there should be improved coordination between agencies involved in child protection and crime prevention (for further discussion, see Parton, 2008). So, while the Climbié case was not the direct driver, it served as a trigger to give an extra push to certain policy proposals (see Keymolen and Broeders, 2013, for similar developments in the Netherlands).

The new Children Act had two main goals. The first was to improve data sharing between agencies, so that local authorities could have easy access to information about the children in their area, what services they are in contact with and the contact details of the professionals involved. The main method suggested for doing this is the application of databases. The second goal was to identify and keep track of those at risk from abuse, neglect, school exclusion, offending and social exclusion and intervene before it is too late. In other words, the aim was to predict which children will become criminals or victims in the future. As a result of this new policy and developments in e-government, in 2002, a pilot project emerged, which claimed it could address some of the issues associated with a lack of inter-agency communication and data sharing. This signalled the birth of the RYOGENS database.

RYOGENS and its successor ShareCare are prime examples of the ‘electronic turn’ in children’s services (both child protection and youth justice) instigated by the Labour government (Garrett, 2009). The ideas that crime runs in certain families and that anti-social behaviour in childhood is a predictor of later criminality underpinned Labour’s policy and continued to be apparent in the subsequent government’s discourse (Cameron, 2011). Although the coalition government that came into power in 2010 criticised Labour’s deployment of surveillance technologies, a very similar discourse can be seen in the new social justice strategy it proposed in 2012 (Department for Work and Pensions, 2012). Meanwhile, new initiatives are emerging to explore the application of ‘big data’ solutions in

this area. For instance, London's council, in partnership with a technology firm Xantura, is developing a predictive risk model for young children to help social workers intervene early when they are in danger of being harmed and predict and identify potential and emerging troubled families (Xantura, n.d.).

RYOGENS

RYOGENS started out in 2003 as a national project funded by the Office of the Deputy Prime Minister (ODPM), as part of the e-Government program of the British government to enable all local authority services by 2005.³ The consulting firm Deloitte was appointed to design and implement the program, Esprit to build the technical solution and Attenda to provide the external hosting services to the RYOGENS partners. Warwickshire operated as Lead Authority from May 2003, originally with Tower Hamlets and Lewisham, which later withdrew. Coventry, West Berkshire, and Redcar and Cleveland joined as second wave authorities (Youth Offending Service, 2005).

After pilot phases, an evaluation was conducted by the University of Oxford (Hill *et al.*, 2004). The evaluation was quite positive; among the findings were that practitioners overwhelmingly felt that there was a need for something like RYOGENS and considered it an important step towards delivering both improved information sharing between agencies and the early identification of young people at risk. After funding ceased in 2005, the project migrated from the ODPM to Esprit Ltd and was renamed ShareCare, with a broader scope focusing on vulnerable children in general.⁴ The initial authorities using RYOGENS continued using the ShareCare tool, which was later taken over by OLM Group (OLM Group, 2012). The following provides an overview of the first incarnation of the RYOGENS database.

RYOGENS is an online database in which professionals from agencies, like Education, Police, Health Services, Social Services, the Youth Offending Team and Housing Services, can enter their concerns about a child or youth that they feel is at risk. After the professional has filled in personal details about the child, he/she can choose from a list of 40 factors (Table >) that they think characterises the child or youth. When concerns develop about a child and reach a certain threshold, the system generates an alert, which is sent to the RYOGENS management function.

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The factors are based on the Youth Justice Board's ONSET form, together with the Department of Health's Assessment Framework for children in need and their families.⁵ These two tools provide risk factors that have been identified in children who are in trouble. Specifying which risk factors apply to the child or youth in question is intended to enable prediction of whether the child is likely to become at risk of committing a crime (Anderson *et al.*, 2006, 2009). The ultimate goal is to reduce crime and anti-social behaviour by providing better support to children at risk and their families, through improving youth justice practices and overcoming poor communication and coordination between the disparate agencies involved.

Table 14.1 RYOGENS factors — Checkbox list designed to identify risk factors

Child: mental health	Absent from home	Child: substance abuse	Frequently moving house
Child: physical health	Involvement in crime/antisocial behaviour	Non-constructive leisure/easily bored	Caring for relatives at home
Child: sexual health	Denies involvement in crime/antisocial behaviour	No other agency support	Lack of family support
Child: mental well-being	Self-harm	Parent: physical health	Domestic conflict/violence
Missed medical appointment	Dangerous behaviour	Parent: mental health	Family and/or peers involved in crime/antisocial behaviour
Not registered with healthcare professional	Has harmed others	Parenting difficulties	Living in high-crime area
Bad behaviour in school	Has intent to harm others	Parental lack of awareness of child's needs	Animal cruelty
Exclusion from school	Suffering actual harm	Parent: substance misuse	Substance availability
Learning difficulties	Perpetrator of bullying/harassment	Lack of facilities/equipment	Social isolation
Poor school attendance/truanting	Victim of bullying/harassment	Financial and/or housing difficulties	Negative home influence on education

Social and ethical issues

The implementation of the RYOGENS database and similar case-management software has been subjected to little critical reflection or consideration of what social and ethical issues might emerge as a result. Previous research exploring the unintended consequences of such developments is of two types. The first includes policy reports and publications that focus on the human rights consequences of the use of databases in government policy (Anderson *et al.*, 2006, 2009; Dowty, 2008; Dowty and Korff, 2009). These publications have a clear focus on the use of the technology and the privacy and data protection risks accompanying it. The second type mainly focuses on questioning the effectiveness of risk assessment and the 'electronic turn' in children's services and youth justice (Case and Haines, 2013; Garrett, 2009; Warner and Sharland, 2010). The former pays little attention

to issues surrounding effectiveness and social consequences, while the latter pays little to the consequences of the use of these technologies, such as risks to privacy or other ethical questions. This section, therefore, aims to provide a more holistic overview of some of the main social and ethical issues, taking both technology and methodology seriously and highlighting some previously overlooked issues.

Privacy and Dignity

Privacy means the right to protect actions and thoughts that persons want to keep to themselves and it is closely related to intimacy (Dratwa, 2014). It is not an absolute right and, especially in the case of children, it needs to be balanced with the child's interest. For example, in cases of child abuse, it is sometimes necessary to override privacy for the safety of the child. However, as Munro (2006) argues:

the new policy extends this level of intrusion into families that are not even suspected of abusing their children, and to all concerns about children's development. It will also over-stretch scarce resources, damage parents' confidence and divert services from focusing on real cases of abuse.

Children need their own space, both literally and figuratively, to realise their capabilities and be able to flourish as human beings. Dignity means respect for the need to have one's own space and one's secrets (Dratwa, 2014). Before implementing such technologies, policymakers must consider the potential impacts. There are many questions that need addressing before the roll-out of data-gathering technologies (Rooney, 2010). How does the use of these technologies contribute to flourishing, well-being and the future of the child and to their life chances? More specifically, how will the retention of data affect their employment opportunities or their sense of well-being if they become stigmatised as a potential criminal? How does this affect the identity and self-image of these children? How might these technologies change the way children conduct their day-to-day activities, build relationships with others and come to an understanding of who they are and the world they live in? Dowty (2008: 120) makes an especially important observation that it 'is meaningless to tell a child that they have independence of thought and the private space to discover who they are, if we are habitually demonstrating through our actions that this is simply not true'. Privacy is important for a child's development as the gradual evolution of 'the capacity to be alone' is essential to imagination, play and the 'symbol-making' at the heart of the creative process and essential to the development of an authentic self (Dowty, 2008, citing Winnicott, 1971).

Trust

The information that is collected about children in such databases is often sensitive and usually that which the children in question mostly would want to keep private. Information that previously would only have been accessible to a social worker with whom the child had built up a rapport is now entered into a

centralised database without a clear sense of exactly who will be able to access the information now and in the future. Data retention is a problem because for children to be able to grow, there needs to be room for forgiveness and forgetfulness (Warnick, 2007). For social workers, gaining trust is the starting point of being able to work with vulnerable children; so, the fact that private information is now entered into a system that is beyond the control of that individual or agency can have a serious impact on trust relations between social worker and child.

This process could affect the level of trust that children place in government agencies in the future. For example, recent empirical research by Brayne (2014) found that individuals who have been stopped by the police, arrested, convicted or incarcerated are less likely to interact with institutions, including medical, financial, labour market and educational institutions, than their counterparts who have had no contact with the criminal justice system (CJS). As CJS contact is disproportionately distributed, the study suggests that avoidance is a potential mechanism through which the CJS contributes to social sorting and increased marginalisation. One could hypothesise that people who had been in contact with these kinds of data collection systems as a child had a negative experience, felt that their privacy was violated and/or felt stigmatised will try and avoid other institutions that use similar data collection mechanisms. In a 'big data' society where data collection is increasingly necessary to obtain rights, this will contribute to social exclusion of already marginalised social groups (Lerman, 2013), raising questions of justice and fairness.

Justice and fairness

Pre-emptive methodologies, such as RYOGENS, give rise to serious issues of justice. Individuals or groups may be stigmatised and discriminated against, based on simple prejudices of the professionals, faulty statistical methods or problems with the methodology. The risk that certain children will be systematically and disproportionately targeted as potential criminals is high, and the resulting stigma is almost impossible to 'shake off', potentially leading to a self-fulfilling prophecy (Jussim *et al.*, 2003) whereby the stigmatised child begins to engage in crime having internalised it as a *fait accompli*.

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Such stigmatisation has very serious consequences for flourishing and well-being in later life and the life chances of these children (see, for example, Farrington *et al.*, 1978; Goffman, 1963). Hence, it also contributes to normalisation processes and chilling effects (Raab and Goold, 2011; Wood and Webster, 2009). On the one hand, people might conform to certain habits or codes not because they want to or truly embrace them but because they do not want to be stigmatised as potential criminals; on the other hand, people might not speak out when witnessing injustice because they are afraid. Sorting people into categories of normal, abnormal, potential criminal, potential victim, and so on creates a climate of fear and distrust in which social cohesion deteriorates (Gandy, 1993; Lyon, 2003). Further, the increased aggregation of data from all areas of our lives in the context of big data, in combination with all other surveillance technologies, will increase both normalisation and chilling effects.

Transparency and accountability

It is important to distinguish between transparency of the work conducted through ICT systems and the transparency of the technology in general. Often, transparency is suggested as the key to solve the issues of privacy, data protection and other fundamental rights that are generated by new data collection systems. Social work ICT systems provide more transparency and, in turn, more accountability, since they provide a service trail relating to each child. When something goes wrong, it is easier to establish why and how. By entering information into standardised forms, work becomes more transparent and predictable and classification and processing of data becomes easier. However, the forms are also tools of control and surveillance, as Franko Aas (2005: 153) points out:

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They are the tools that enable a shift of discretion and power from professionals to administrators ... Managerial control in contemporary ... systems is based on limiting the access of certain groups to introduce alternative types of knowledge and language that do not correspond with closed-ended formats and classifications.

Paradoxically, increasing transparency by using ICT systems brings new risks to the privacy and safety of the children concerned. Databases, such as RYOGENS, have the potential to be interlinked with other systems, creating new ways in which to correlate and assemble information, creating profiles of individuals in a way previously impossible. It is not clear how the resulting 'data-doubles' (Poster, 1990) are governed nor who develops the code underlying definitions of risk and to what end. Thus, the systems become less transparent again, with consequences for accountability. Furthermore, power relations are not straightforward, top-down and panoptic, but diffuse; this has consequences for safety and justice in the sense that accountability, too, is diffused (Haggerty and Ericson, 2000; Rose, 2000). It becomes increasingly unclear who is responsible. Hence, the policy of improving data sharing and overcoming communication problems may actually exacerbate issues of transparency and accountability.

Efficacy of pre-emptive surveillance databases

The predictive utility and accuracy of the applied risk factors have been assumed and largely imputed from previous risk-factor research, such as West and Farrington's (1973) study, rather than established via evaluation of the actual tool. The existing evaluations of the ONSET tool have demonstrated a developmental bias and imputation of efficacy that have created a self-serving evidence-base for its use (Case and Haines, 2013) and, therefore, also for RYOGENS, which is based on the ONSET risk factors. The main issue here is that the major correlations of offending behaviour by young people, which was identified by risk-factor research, are neither sufficient for predicting nor indicating that the onset of exposure to risk factors predates the onset of offending. In addition, previous

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risk-factor research is characterised by numerous methodological flaws, such as over-simplification, imputation, determinism, psychosocial bias and a scant evidence base. As a consequence, ShareCare, which is based on RYOGENS, which is based on ONSET, which is based on ASSET, has ‘updated, broadened and further engrained the misapplication of risk factor research within the youth justice process’ (Case and Haines, 2013: 296).

These methodological problems mean that the number of false positives and false negatives will be high. On the one hand, there is the danger that children who are being abused or at risk of committing crimes are being ignored because they do not show the ‘typical’ risk factors, whereas on the other hand, there is the risk that parents are inappropriately scrutinised for potential child abuse and children for criminal behaviour. Apart from the false positives/negatives, the true positives also pose a problem. You can never test empirically what did not occur, so the system can be declared effective at diverting criminal activity, despite never knowing whether a crime would have indeed taken place without intervention.

AQ7 In evidence to the House of Commons Home Affairs Committees, the UK Information Commissioner stated:

Technology can take you a long way but it is not going to be 100% effective. When we raised concerns about profiling we raised concerns about social sorting. It is to signal the risks involved without the human intervention. Machines can do a lot to gather and to help you inform your decisions but without the human intervention I think there are grave dangers.

Simon Wessely’s evidence to the same committee explained: ‘The problem is that it is incredibly inaccurate. It is okay for a large group of people and so you can make predictions about large samples in populations, but when it comes to the individual, it is incredibly inaccurate’. Similarly, Carol Dezateux pointed out that ‘just because certain factors are associated with an increased likelihood of a behaviour, it does not mean that just because they are present in an individual that they are behaving in this way’ (House of Commons, 2008: 89–90).

AQ8 Apart from the methodological flaws explained above, errors can also result from technological problems, human error and resistance. Technological failings include glitches, bugs and malfunctions, design (user-friendliness, errors in design) of the software, software not being updated or problems with hardware (system crashes). Unintended human error includes was incorrectly input by practitioners, problems with inputting information and wrong information unintentionally provided by children and parents. Purposeful resistance can lead to deliberately entering incorrect information or children and parents intentionally providing the wrong information. These issues can lead to false accusations, wrong conclusions and interventions and discrimination. Existing evidence about child protection and social work points to the fact that the main problems lie in how social work practice is organised, working conditions and lack of expertise and budget – they will not be solved by technology (Anderson *et al.*, 2006; Munro, 2011).

Finally, although RYOGENS and similar systems were introduced to improve communication between agencies, according to practitioners, it has had no positive effect. In fact, according to some who participated in this research, it can actually reduce communication. Whereas prior to the implementation of RYOGENS, practitioners might have communicated by phone or email, now they presume that all information is in the system and does not need to be discussed further.

Conclusion

This chapter has shown how pre-emptive surveillance has emerged in England, focusing specifically on one manifestation, the RYOGENS database, to highlight some of the main social and ethical consequences that have accompanied this development. This more holistic overview of the possible unintended consequences reveals that these technologies are problematic for several reasons, including, in summary: (1) current regulation and policy do not provide safeguards to protect children from the impacts of being stigmatised as potential criminals or parents being falsely accused of abusing their children or to prevent discrimination; (2) the impact of these technologies, in combination with the whole array of surveillance technologies children are exposed to (see Chapter 1; Steeves and Jones, 2010), on child development and children's trust in government and public services urgently needs more attention; (3) the impact of technological issues on the effectiveness of the assessment is rarely taken into account and there is too much belief by policymakers that the technology works. To conclude, information technology should be seen as one of several tools for modern management, not as the solution to the problem (Anderson *et al.*, 2009); (4) the evidence base of risk-factor research needs critical assessment; and (5) despite all the criticism so far, new technologies are being developed and considered for implementation, such as the mentioned predictive analytics software, to identify troubled families without taking into account any of the existing research and evidence on this (Anderson *et al.*, 2006, 2009; Case and Haines, 2013; Munro, 2011). Overall, the investment in developing, implementing and managing new pre-emptive technologies takes money away from funding other resources, such as extra staff, training and improving practices.

In summary, I argue that the enthusiasm for being able to predict the future needs to be tempered by thorough critical evaluation of the evidence. Policymakers should adopt a much more critical stance towards these new technologies, as well as to the promises of risk-factor research. Furthermore, decades of criminological research informs us that potential labelling effects and stigmatisation are very hard to escape and so, the generation of risk profiles from these databases are potentially impeding the life chances of the most vulnerable in our society. The methods upon which they are based are ethically dubious and, as yet, there is no published evidence to suggest that systems, such as RYOGENS, are actually effective in what they set out to do.

Notes

- 1 I would like to thank Emmeline Taylor, Tonya Rooney, an anonymous reviewer and Paul De Hert for their comments and constructive feedback on a previous version of this chapter.
- 2 The Children Act implemented the main proposals outlined in the Green Paper, *Every Child Matters*, published by the Department for Children Families and Education in September 2003.
- 3 The information provided on RYOGENS comes from the RYOGENS website, www.rयोगens.org.uk, shortly after its launch. The website was later taken offline, but parts can still be consulted via a web archive: web.archive.org/web/20060110181231/http://www.localegovnp.org/default.asp?sID=1107187790130.
- 4 The majority of practitioners who were interviewed in the context of the PhD research on RYOGENS and ShareCare was less enthusiastic and sceptical that communication had improved as a result of using the system.
- 5 The ONSET framework is almost entirely based on ASSET (a profiling tool used to assess offenders and prepare pre-sentence reports for the courts). The tool lists a number of factors that suggest whether a young person is likely to become involved in crime. The risk factors used in these tools are based on West and Farrington (1973).

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