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Children, Public Sector Data-Driven Decision-Making
and Article 12 UNCRC

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Abstract

Concerns are increasingly being raised about the routine collection and analysis of children's data, about commercial data mining and digital profiling and about the datafication of children. To date, however, little attention has been given to how public sector bodies are using children's data to make decisions that affect them, or to exploring children's views about public sector collection, analysis and disclosure of children's data.

This article commences by outlining the findings of a small-scale study which sought children's views about governmental use of data in response to the Covid-19 pandemic. Seventeen children, aged between eleven and eighteen years, participated in this research. These children wanted and expected the UK Government to consider their views about matters affecting them, including how their data is used. Although the UK Government is now proposing to build on its data-driven pandemic response, arguing that the success of its data-driven approach obliges it to do still more with data held by the public sector, no-one has considered how such proposals will impact upon children. These proposals, outlined in 'Data: A New Direction' pay scant regard to children's rights or interests. Children's views regarding these proposals have not been sought. It is argued, that with the UK Government considering how best to reform data protection legislation, there is a pressing need to consider how children's views can now be fed into UK data policy.

The datafication of children, is, however, an issue affecting children not only in the UK but worldwide. At European and global levels academics and policy makers have begun to ask how children can be supported to understand how their data is used and to express their views and opinions about its use. The Council of Europe and the United Nations Committee on the Rights of the Child have both recommended that children should be actively

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involved in the design, implementation and evaluation of legislation and policy. This article argues that to comply with international obligations under the United Nations Convention on the Rights of the Child, and to meet the expectations of children themselves, governments must give more thought to ensuring data policy is informed by children's views and that children's best interests are treated as a primary consideration. This article explains how this can be achieved.

Keywords: Datafication, datafied child, public sector data-driven decision-making, Article 12 UNCRC, participation

1.   Introduction

On 11 March 2020, the Director-General of the World Health Organization announced that more than 118,000 cases of Covid-19 had been identified across 114 countries with 4,291 people having died of the disease. He declared, 'COVID-19 can be characterized as a pandemic' (WHO, 2020). Less than two weeks later, the UK Prime Minister, pronouncing COVID-19 'the biggest threat this country has faced for decades,' announced a national lockdown (Prime Minister's Office, 2020). The UK, as well as many other countries, has since experienced further lockdowns and numerous restrictions on movement and behaviour. Data (particularly data on Covid-19 prevalence, vaccine deployment and health system capacity) has been key to determining the nature and severity of restrictions (Cabinet Office, 2021). The use of 'data not dates' (a phrase used by the Prime Minister to signal that restrictions would be relaxed only when epidemiological conditions allowed) has been central to UK Government messaging (Prime Minister's Office, 2021). A data-driven approach has been at the heart of the UK Government's pandemic response (DCMS, 2021).

Much has been written about the impact of the pandemic upon children's health, education, and wellbeing (Barnardo's, 2021; Children's Commissioner, 2020). This article begins by exploring another, largely overlooked issue: how data-driven pandemic responses involving information sharing, the use of information to justify policy decisions, as well as more sophisticated or automated data processing and profiling, have impacted upon children and their privacy. This article is not, however, about the pandemic. Discussion of the UK Government's pandemic response is used primarily to illustrate how data-driven approaches are increasingly becoming the norm, and to illustrate that even where such approaches may impact significantly upon children, it is rare for policy makers to consider children's rights, or views. These data-driven approaches are detailed to provide context for discussion of a small-scale study conducted with children in 2021 which explored children's views about the government's data-driven approach.

Many of the children involved in this study suggested that they would have liked to receive more information from the government about its data-driven approach and about how

their data was being used. These children wanted to be asked what they thought about the decisions which would inevitably affect them: decisions to close schools, to cancel exams and to use algorithms to determine grades. They had views about how their information was being used and wanted to have those views and interests taken into consideration. These children made clear, as indeed have many other children whose views have been sought during the pandemic (Lundy et al., 2021; Barnardo's, 2021), that they wanted policy makers to listen to them, and for their rights and interests to be considered.

Lauding the 'success' of its data-driven Covid response, the government now plans to extend its data-driven approach, asserting that data is key to 'building back better' (DCMS, 2021). Attention must accordingly now be given to how the further extension of such a data-driven approach may potentially impact upon children, recognising that even pre-pandemic concerns were being expressed about the collection and analysis of children's data, of data mining, of digital profiling, and thus about 'datafication' of children (Lupton and Williamson, 2017; Mascheroni, 2018; Barassi, 2020). Given children's expressed wishes to be heard, it is argued that children's views should be sought both about public data-driven decision-making and about public sector use of their data more generally.

The United Nations Convention on the Rights of the Child (UNCRC) imposes significant obligations upon the UK, including requirements to treat the child's best interests as a primary consideration (Article 3), to ensure no child suffers arbitrary or unlawful interference with their privacy (Article 16), and to afford children who are capable of forming their own views 'the right to express those views freely in all matters affecting them' with their views 'being given due weight in accordance with the age and maturity of the child' (Article 12). Caglar, describing the UNCRC as 'a shield to protect children and their rights in the physical and virtual world,' argues that 'the UNCRC should be used to interpret regulations in a way that protects children in the collecting, processing and use of their data and that its principles and pillars should guide the stakeholders when implementing relevant laws' (2021). As Livingstone and O'Neill highlight, however, '[w]hile protecting children's rights is frequently interpreted as 'protecting' children from harm, the UNCRC – uniquely within international treaties – also places equal emphasis on provision … and on children's rights to social, cultural and political participation' (2014, 27). The child's right to express views is equally important, including at the pre-legislative stage, when governments are formulating data policy.

Despite the obligations imposed upon signatory states by the UNCRC, there is no evidence, of children's views having been sought or fed into the recently published UK Data Strategy (DCMS, 2020b), the UK Government's 'ambitious, pro-growth strategy' for 'building a world-leading data economy.' The government's 2021 consultation, 'Data: A New Direction', which details the government's proposals for data protection reform, makes few references to children; neither children nor anyone representing their interests are mentioned amongst those whom the government proposes to consult (DCMS, 2021).

It is argued that the UK Government should now develop a strategy for ensuring data policy incorporates children's views. Given the Council of Europe's recommendation that 'stakeholders … actively engage children to participate meaningfully in designing, implementing, and evaluating legislation, policies, mechanisms, practices, technologies

and resources' (CoE, 2018, p4), and the very similar recommendations made by the United Nations Committee on the Rights of the Child ('the Committee': UN, 2014; UN, 2021a), the suggestions made in this article will also undoubtedly have resonance beyond the UK. This article accordingly explores what effective participation entails, discussing key child participation theories and how they can be used to facilitate children's engagement, before offering practical suggestions for developing a strategy to facilitate children's participation in data policy both in the UK, and in other jurisdictions.

The term 'children' used throughout this article encompasses all children and young people under eighteen, reflecting the terminology used in Article 1 UNCRC.

2.   Data-driven decision-making during the pandemic

Public, private, and commercial organisations all now use personal data to take data-driven decisions which affect our lives (Barassi, 2020; Robertson and Tisdall, 2020). The UK Government's use of personal data in data-driven decision-making has been particularly evident during the Covid-19 pandemic. The government asserts that '[r]esponsible use of data … was a cornerstone of the nation's fight against Coronavirus,' suggesting its data-driven response 'showcased how the government and organisations can share and use personal data responsibly to develop vital services that keep people safe and save lives' (Cabinet Office, 2020).

The data-driven approaches used in responding to Covid-19 fall into three broad categories: (a) the use of information and statistics to justify decisions or policy; (b) information sharing activity involving human input; and (c) more sophisticated or automated data processing using artificial intelligence and machine learning (Allsopp et al., 2021). Statistical data, including the R (reproduction) number and infection rates, have been used in predictive modelling to anticipate and understand transmission, to inform policy, and to determine alert levels (UK Health Security Agency, 2021a). The sharing of personal data from multiple sources (NHS Test and Trace datasets, the NHS shielding patients list, general practitioner records, and local authority records regarding school attendance and free school meal eligibility) has been crucial to identifying and supporting vulnerable individuals and delivering localised pandemic responses (Unattributed, 2020; Allsopp et al., 2021). Free school meals data has been used to determine the allocation of free computers to disadvantaged children (Gov.uk, undated). Novel approaches to data sharing have been illustrated in public-private collaborations, resulting in prioritisation of supermarket delivery slots for vulnerable people, and disclosures of visitor details to health authorities where restaurant and pubs have had confirmed infections (DCMS, 2021). New technological data-driven innovations include the QCovid algorithm, which uses data to profile and identify people at high risk of hospitalisation, and the NHS Covid-19 app, a digital proximity app which identifies and notifies people who have been in close contact with someone who has contracted Covid-19.

Children's privacy has been affected by requirements for those testing Covid-positive to provide information to NHS Test and Trace about recent contacts (UK Health Security Agency, 2020). Many schools have asked pupils to inform them if they test positive so that other pupils can be notified, and to enable Directors of Public Health to implement appropriate measures (Cumbria County Council, 2021). Whilst others have written about the privacy implications of manual and contact tracing (Pila, 2020), the government's data-driven response has, of course, impacted on more than children's privacy. Between April and August 2021, many school pupils who were close contacts of individuals who tested Covid-positive were required to self-isolate; significant numbers accordingly missed school (Gov.uk, 2021). Although children are at less risk of becoming seriously ill from Covid-19, 'the secondary impacts of the pandemic,' namely government decisions to impose restrictions and lockdowns and to close schools, have significantly affected children's mental health and education and have left children more vulnerable and at risk of harm because schools, often the first to identify problems, had limited contact with many pupils (Streetgames, 2020; Children's Commissioner, 2020, 15; Barnardo's, 2021; Young Minds, undated).

The use of algorithms to determine students' grades in August 2020, however, most clearly illustrates how data-driven decision-making negatively affected children across the UK. Subject to lockdowns and prevented from attending school, children were unable to sit key examinations.[1] The UK's qualification regulators[2] were directed to develop an alternative approach to awarding grades (OSR, 2021). In England, for example, OFQUAL advised schools to provide exam boards with the grade they thought each student would have received in each of their subjects had exams taken place, based upon students' performance in homework, mock exams and other assessments. Schools were required to rank each student, ordering the candidates from the most likely to the least likely student in that school to achieve a particular grade in each subject. OFQUAL then used a 'direct centre-level performance approach,' considering the previous distribution of grades achieved in each school, adjusted to reflect changes in the prior attainment of candidates in the current cohort compared with previous cohorts (OSR, 2021 p23). A set of grades was provided for each school, which were allocated to students using the rank order supplied by the school, save where there were too few students in a class to do so. In that case, a national level standardisation was applied. Even before results were released, concerns were raised about the potential impact of these models on disadvantaged groups (House of Commons Education Committee, 2020). Qualification regulators themselves recognised that the proposed grading would lead to the replication of inequalities inherent in previous patterns of attainment (OSR, 2021).

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[1] In the UK, children ordinarily complete examinations at the end of year 11 (aged 15–16) and at the end of year 13 (aged 17–18).
[2] In England, the Office of Qualifications and Examinations Regulation (OFQUAL); In Scotland, Scottish Qualifications authority (SQA); in Wales, Qualifications Wales; in Northern Ireland, Council for the Curriculum, Examinations & Assessment (CCEA).

When results were published, 40 per cent of the grades that schools judged a pupil would have achieved had been moderated down by OFQUAL's algorithm (Children's Commissioner, 2020). Many children unsurprisingly expressed discontent over how their grades had been calculated, the impact it had upon their ability to attend their chosen university, and thus upon their futures (OSR, 2021; Busby, 2020). Some attempts were made to consult the wider public about the grading process; OFQUAL, for example, consulted with exam boards, groups representing teachers, school and college leaders, and groups representing students (OFQUAL, 2020). Consultations do not appear, however, to have been designed to meet children's needs, providing little detail of the actual process (OSR, 2021). Many children were unaware of the proposed approach to awarding grades (Priestley et al., 2020).

This lack of discussion and engagement with children about an issue affecting thousands could be said to be symptomatic of wider failures to consult children during the pandemic (Observatory of Children's Human Rights Scotland and CYPCS, 2020, 5,). Children have not been the UK Government's priority during the pandemic; rather the government's 'overriding goal' has been to protect lives and livelihoods (Cabinet Office, 2021). Children's needs have been 'side-lined and ignored' and their rights 'downgraded' (Children's Commissioner, 2020, 27). Children have not felt heard; they have felt forgotten (Lundy et al., 2021; Barnardo's, 2021).

3.   Children's views about the government's data-driven response

In early 2021, the AHRC-funded Observatory for Monitoring Data-Driven Approaches to Covid-19 (OMDDAC) commissioned Investing in Children (IiC) to help it explore children's views about the government's data-driven approach to Covid-19. Established in 1995 as a partnership between the County Council and Strategic Health Authority, for over twenty years IiC have been working to enable children to enter into dialogue with adult decision-makers, with their work underpinned by the belief 'that children are knowledgeable about the world in which they live, and can be powerful participants in political dialogue and persuasive advocates on their own behalf' (IiC, undateda). This section outlines how children's views were obtained by IiC and details the views expressed by the children who took part in this study.

3.1 Methodology and methods

Initiatives designed to engage children usually fall into one of two categories: those that work with a small group who 'represent' the wider population, and those that create opportunities for children to 'participate' themselves (Cairns, 2006). IiC adopts the latter approach, not creating opportunities for children to take part as representatives, but, supporting all children, 'of all ages and living in all circumstances', to become active, effective participants in dialogue (IiC, undatedb). It must be stressed, therefore, that this small-scale study did not aim to achieve representativeness but sought to gain 'unique insights' (Silverman, 2014, p72). Its aim was to investigate whether any children knew how their data had been used in response to the pandemic and to explore children's views about how data was used.

IiC uses an innovative agenda day™ approach to engage children in discussion (Stalford et al., 2017). An agenda day is an adult-free space, where children (facilitators) lead conversations about an issue affecting children, encouraging other children to express their views. The facilitators take primary responsibility for notetaking and report writing. An IiC project worker assists the facilitators, discussing the issues for exploration with them prior to the agenda day, providing support where needed. Facilitators are paid a small fee. The attendees also receive a nominal sum of £5, to thank them for their time. Whilst ordinarily

agenda days would involve numerous children meeting face‑to‑face, arranging a face-to-face event proved impossible for this project due to social distancing restrictions. IiC, therefore, proposed that a virtual agenda day be hosted on zoom, scheduled for early evening, lasting an hour and a half, a timescale that, in hindsight, was perhaps overly short.

For this research, IiC also suggested using a second method for engaging with children. Conscious that many children were becoming 'zoomed out', IiC suggested additionally offering children the opportunity to contribute their views via online survey. This survey provided children with the questions provided to the facilitators. Respondents typed free-form answers into response boxes.

The brief to facilitators included a mix of closed and open questions offering children the opportunity to respond to specific queries and comment on what they would like to have seen happen. Several broad questions were explored both at the agenda day and via the survey: what children know about how the government is trying to tackle Covid; what they know about how information and technology has been used to stop Covid; from where they obtained their information; whether they wanted more information about the government's approach; whether they feel there has been enough discussion with them about these issues; whether they would like their views to have been sought before decisions were made; how they thought the government could find out their views.

The brief also included three scenarios with short accompanying questions which incorporated data-driven approaches used during the pandemic: wastewater testing;

police monitoring of self-isolation requirements; and computer grading. Questions and scenarios were designed to be accessible and of interest to children from primary school age upwards, yet also relevant to policy makers. Wastewater testing has been used during the pandemic to identify where fragments of viral genetic material are present, to detect outbreaks and inform local and national pandemic responses (UK Health Security Agency, 2021b). Wastewater testing is expected to continue post-pandemic, being used, for example, to monitor various viruses of public health concern but also to detect the presence of illegal substances related to drug production (Ott, 2020; Van der Sloot, 2021). Some academics are already raising concerns about such wastewater testing, suggesting 'sewage monitoring might become one of the most common and invasive forms of surveillance in the coming years' (Van der Sloot, 2021, p1). Wastewater testing was accordingly considered a good scenario for the children to consider, even though it was recognised some might be unaware of it. Self-isolation requirements (requirements to stay at home either due to having been infected with or having been in close contact with someone infected with Covid-19) have, as noted above, affected many children (including some participants). Many self-isolating children have been unable to attend school (Gov.uk, 2021). The use of algorithms to determine grades, already discussed above, affected thousands of children.

Before the agenda day, OMDDAC discussed the brief with an IiC project worker and two children who volunteered to act as facilitators. The children advised subsequently that they would prefer to focus upon two scenarios, considering it too difficult to explore all three online. The second scenario (police monitoring) was not, therefore, discussed at the agenda day, although it was included in the survey.

Participants were recruited using posts on IiC's Twitter account and emails sent to children on IiC's database on or about 23 June 2021. Recruitment was timed to ensure the agenda day took place before the school holidays, and that children's views were incorporated into OMDDAC's final report and shared with policy makers. The survey was open from 23 June to 16 July. The agenda day took place on 7 July. In accordance with university ethics requirements and IiC procedures, consent was obtained from participants or their parents, depending upon age, using a consent form IiC co-produced with children.

Seventeen children participated. The agenda day was attended by five children aged 15–18, including two facilitators. The survey was completed by twelve children, two aged 11–13, five aged 14–16 and five aged 17–18. These children lived in areas ranked in deciles 3, 4, 5, 7 and 8 of the English Index of Multiple Deprivation (IMD), decile 1 being the most deprived areas and decile 10 the least deprived (Ministry of Housing, Communities and Local Government, 2019).

Using two different data collection methods posed challenges. Whilst individualised responses were provided for survey respondents, the agenda day report provided a broader overview of conclusions drawn from discussion. The agenda day also only covered two scenarios, whilst survey respondents considered all three. Despite the small scale and the recognised limitations of this study, it is suggested that the children's clear, often detailed, comments merit further consideration. The challenges of recruiting children as participants have long been recognised (Cree et al., 2002) and discussions with a large

research consultancy suggest the challenges have been exacerbated during the pandemic. It is nonetheless evident that even small samples such as this can afford valuable insights into children's perspectives and be useful in developing practical recommendations (Millward and Senker, 2012).

3.2 Findings

Several themes emerged from this research. These children wanted to receive reliable information about matters affecting them, they wanted to express their views and for the government to consider them. Similar points have been voiced repeatedly during the pandemic (Lundy et al., 2021; Barnardo's, 2021; Girlguiding, 2021). This research indicates, specifically, that some children wish to know how their data is used and have and want to express views about how it is used.

3.2.1 Children's awareness of the government's data-driven approach

All the agenda day attendees plus nine survey respondents were aware of key measures introduced to address Covid-19 mentioning: lockdowns; social distancing; mandatory mask wearing; vaccinations; the tiered travel system; school closures; funded tutoring; monitoring of data relating to infection, hospitalisation, and mortality rates; track and trace; and the NHS app.

Gaps in the children's knowledge were, however, evident. When asked 'what have the government done to tackle Covid-19', one survey respondent did not know, two did not answer. The agenda day report noted some attendees knew wastewater was tested but indicated 'others were absolutely clueless'. Seven survey respondents were unaware of wastewater testing. Although the agenda day participants knew of the government's 2020 plan for grading GCSEs and A levels, seven survey respondents, including five aged 14–18, did not. This did not mean, however, that the children had no opinion about this proposal; all agenda day attendees and four survey respondents disliked the idea.

The children gained information by various means: schools; social media; parents; family; friends; and televised and reported news; similar sources to those other children report using (Children's Commissioner for Wales, 2020; Children's Parliament, 2020b). The agenda day group expressed concern about the reliability of some information, commenting upon biased news reporting and suggesting social media 'was a very untrustworthy source.' Similar concerns about social media have been expressed by other children (Lundy et al., 2021). Despite being able to access some information, the children did not all believe they had received sufficient, trustworthy information from government. Five survey respondents said children had not been given enough information about government's decisions during Covid; one commenting that government polices 'aren't

broadcasted well-enough.' Whilst agenda day attendees had seen government adverts about Covid restrictions on social media, they suggested:

> the government has not used their website effectively as it was very difficult to read and understand. The young people were rather critical of the government website as it was difficult to navigate.

Responses suggest even children with a good level of digital literacy who wish to keep themselves informed may not always be able to effectively access government messaging, and that the government could do more to ensure children can access information about policies affecting them (something also suggested by other children (Children's Parliament, 2020b)). Where children do not know how their data is used or how decisions affecting them are made, it potentially impacts upon their ability to exercise their Article 12 UNCRC right to express a view upon matters affecting them. The importance of ensuring that information is presented to children in child-friendly, understandable language is widely recognised (CoE, 2018; UN, 2009; ICO, 2020; Data Protection Commission, 2021). In the context of data-driven decision-making the transparency requirements of UK General Data Protection Regulation (UKGDPR) Article 12, which include a right to receive information about the collection and processing of one's personal data, are also pertinent. Article 12 and Recital 58 UKGDPR specifically highlight that information addressed to a child should be intelligible, easily accessible, and in clear, plain language.

3.2.2 Children's views about the government's data-driven approach

Some children commented positively upon the government's data-driven approach. The agenda day report, for example, described wastewater testing as 'innovative,' explaining:

> they believed that if it was going to protect people that it shouldn't matter if they felt that it was a little invasive as it is for the greater good. They said that it was a good way of identifying the Covid-19 hotpots. The young people didn't believe it to be an invasion of privacy because it could help prevent the spread of Covid-19 by recognising where most cases were and putting certain restrictions in place, such as a local lockdown.

Survey respondents' views were, however, more mixed. Six considered wastewater testing acceptable. Two were unsure. Four opposed it, one suggesting 'people need to be aware and consenting'. When asked whether information derived from such testing could be shared with others, again views varied. The agenda day attendees thought it 'okay to share

the information with everyone, except for the police' suggesting 'the police had no business in knowing this information', asking 'what they would do in protecting the public with this information'. Several survey respondents suggested information could be widely shared, two suggesting it might even be shared with the public. A preference was, however, again exhibited for sharing with health professionals and the local authority over the police. Nine survey respondents supported information sharing with health professionals and the local council; five agreed to information sharing with the police. OMDDAC's public perceptions survey identified that adults were similarly less prepared to share information with the police than with health professionals or local authorities (Sutton et al., 2021). Both this study and the public perceptions survey found also that participants were more willing to share anonymised than non-anonymised information.

The agenda day attendees did not consider police monitoring. Survey respondents' views about the police being told when individuals are required to self-isolate were divided: some considered disclosure acceptable (five); some were unsure (four); some objected to disclosure (three). More respondents (eight) expressed concern, however, when asked specifically how they would feel if *their* family were monitored to ensure they were self-isolating. Two children raised specific concerns about the police, one suggesting 'police are corrupt and have biases which could lead to unequal fines', the other commenting 'they'll dish out fines, and fines only mean things are ok for rich people'. These comments suggest there may be merit in further research exploring children's views about public sector data sharing with the police. Furthermore, whilst this study is too small to draw substantive conclusions about how children want their data to be used, the diversity of these children's views indicates a potential need for wider scale, representative, research exploring children's views about data-driven decision-making. Whilst academic attention is increasingly being given to exploring children's views about how their data is used (Coleman et al., 2017; Livingstone et al., 2019), limited attention has been given to children's views about governmental use of their data (Stoilova et al., 2021; Milkaite et al., 2021). Only one study appears to have considered children and data-driven decision-making, and that study focuses more upon developing children's data literacy than children's views about governmental use of their data (Robertson and Tisdall, 2020).

3.2.3   Children want their views to be considered

A key message articulated by participants was that the Government must consider their views and interests, suggesting it is not only academics who should investigate children's views about use of their data. Seven survey respondents said there had been insufficient discussion with children. Seven survey respondents also said young people should have been asked before decisions were made about matters such as school closures, Covid testing at school and mask wearing at school. The agenda day report similarly illustrates the children's desire to feed into data-driven decision-making:

> Without any hesitation, definitely the young people would have wanted to be asked about the decisions being made, as it was their future so they should have a say. They said that if they were asked about wearing masks they would have agreed in a heartbeat as they would rather wear a mask than work on a laptop virtually at home.

The agenda day report makes clear that this group thought the government could have done more to consider children's interests, advising:

> young people are not considered enough, especially when the pandemic has affected them massively. People doing exams this year and last year, such as GCSEs weren't even considered when forming a plan and making big decisions about their futures.
>
> … The young people seem frustrated as their futures have not been considered at all, they believe that Covid-19 is going to impact future employment and the government has simply ignored this.

That children want their interests and views to be considered are not new findings. In Girlguiding's survey of 2000 girls, 85 per cent of respondents, aged 11 to 21, said they wanted young peoples' concerns to be 'central to government decisions about the future' (Girlguiding, 2021, 5). This study indicates, however, that some children hold and want to express views about *how their data is used*. These children suggested various means by which the government could seek their views; via schools, youth organisations, and social media, and via surveys, including surveys disseminated through schools. This article argues that, given children's comments, and considering the government's expressed intention to continue its data-driven approach post-pandemic, there is now a pressing need for government engagement with children on data policy issues.

4.   A need for governmental engagement with children on data policy

The government contends that '[r]esponsible use of data' is 'a key enabler of the government's work to build back better' post-pandemic' (DCMS, 2021). It lauds the 'success' of its data-driven response, a response which it argues imposes 'a duty to do more' with government-held data 'for the benefit of society' (DCMS, 2020a), and suggests we should build 'on the high watermark of data use' during the pandemic 'to deliver public services in more agile, innovative, effective and efficient ways' (DCMS, 2021, 6, 103). Relevant to children are comments that lessons learnt during the pandemic may be used

'to inform approaches to other governmental priorities, such as improving outcomes in education' (DCMS, 2021, 103).

This emphasis on data raises significant concerns. Whilst such a data-driven approach will perpetuate the datafication of children (Barassi, 2020), neither the government's data strategy (DCMS, 2020a) nor its consultation paper, 'Data: A New Direction' (DCMS, 2021) consider how expanded data use may affect children. Furthermore, there is no evidence of children's views having been sought or fed into the government's data strategy (DCMS, 2020b). Data: A New Direction (DCMS, 2021) is available only on the government's website, which children describe as 'difficult to navigate'. Neither children nor organisations representing children's interests are listed amongst those whom the government seeks to consult (DCMS, 2021). This is notwithstanding that Government Consultation Principles suggests consultations are 'targeted', with consultation authors to consider the full range of people affected, ensuring they are aware of and can access consultations, and that consultations are tailored 'to the needs and preferences' of groups *such as young people* that may not respond to traditional consultation methods' (Gov.UK, 2018). The government appears to have forgotten that children's data merits special protection (UKGDPR Recital 38), that children have rights: to privacy, to be informed, to express an opinion, to have their views listened to and given due weight, and to have their best interests treated as a primary consideration (UNCRC Articles 16, 13, 17, 12, 3). These rights apply offline and online (UN, 2021a).

4.1   The datafied child

Children are the first generation to be datafied from before birth (Barassi, 2020). Much of this datafication results from commercial data mining and digital profiling, and from mobile phones, wearable devices, and social media, all of which generate data which may be used to monitor and evaluate children, and their health, development, moods, and achievements (Lupton and Williamson, 2017; Barassi, 2020). Children are also datafied because the public institutions with which they and their families must engage (schools, doctors, local authorities) are all data driven (Barassi, 2020). At school, children's data is routinely collected and analysed, to monitor educational progress, to evaluate behaviour, to track movements, to analyse canteen purchases, to make assumptions, to predict progress, and to determine interventions (Lupton and Williamson, 2017; Barassi, 2020). Children are becoming 'configured as "digital data assemblages"' (Lupton and Williamson, 2017, 783), constructed as 'data subjects' (Barassi, 2020, 31–2). Children's data, once 'part of the digital data economy,' may potentially be used by unknown actors in ways unknown to children and their parents (Lupton and Williamson, 2017).

Barassi suggests datafication processes are intensifying post-pandemic, and that 'understanding these processes … and investigating our society's attitudes to personal data' should 'be the top priority of our times' (Barassi, 2020, 18). With schools increasingly reliant upon educational technologies, concerns are certainly being raised about how such technologies, provided by private sector entities on the state's behalf, may impact upon

children's privacy and security, and facilitate the exploitation of children's data (Stockman and Nottingham, 2022, Defend Digital Me, 2020; Privacy International, 2020; Williamson and Hogan, 2020). During the pandemic many children have relied upon online platforms such as Tiktok, Instagram and Snapchat, raising concerns about privacy and the illegal collection of children's information (TikTok Data Claim UK, undated). Nobody, however, appears to be considering how the government's pandemic response or its data reform proposals may accelerate children's datafication. Little attention is being given to large-scale governmental data collection initiatives such as the 2021–2 Scottish Health and Wellbeing (HWB) Census, being implemented to help Scottish Local Authorities 'identify and drive forward local improvements' (Scottish Government, 2020).

4.2   The child's Article 12 UNCRC right

This paper has identified that some children want to express views about how their data is used and about data-driven decisions that affect them. For more than 30 years, since the adoption of the UNCRC, the world has recognised the importance of allowing children to speak for themselves, through Article 12. UNCRC Article 12 requires states to 'assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child'. Whilst Article 12 UNCRC does not define 'matters that affect children,' it is accepted that the term encompasses matters affecting children's everyday lives and 'broader political matters' (Henaghan, 2017, 540). The government's data reform proposals, which will impact upon children's ability to control how their information is used, and upon their rights to privacy and to respect for private life (UNCRC Article 16, European Convention, Article 8), are clearly 'matters which affect children', upon which children should be able to provide a view.

It has been suggested that listening to and involving children can produce 'more relevant and more informed decision making' (Observatory of Children's Human Rights Scotland and CYPCS, 2020, 13), that decision making is improved where policy makers understand children's views and perspectives (UN, 2009; Henaghan, 2017). Children themselves argue compellingly that policymakers 'have to feel, speak, think and hear like a child to take the right decisions for children;' that children's voices can provide useful insights into situations or sectors that adults 'may have forgotten or have not given much importance' (SRSG, 2021). When children's views have not been sought, where, for example, laws and regulations have been drafted 'on the assumption that only adults use the internet' such laws have proved inadequate to protect under-eighteens (Caglar, 2021). The UN's 2030 Agenda for Sustainable Development reiterates that children should be listened to, making explicit children's role as 'critical agents of change' (UN, 2015, para 51).

4.3   Children and data policy: Time for a new approach

In practice, children are dependent upon adults to exercise their Article 12 UNCRC right. Whilst progress has been made in facilitating children's participation in decision-making, numerous barriers still prevent children from being heard (Joining Forces for all Children, 2021). The UNCRC applies first and foremost to the governments of State Parties to the Convention. Nonetheless, a 'recognised gap' between the UK Government's legal obligations under Article 12 UNCRC and actual practice had been identified long before the pandemic (Lundy, 2007).

The way adults view children undoubtedly influences their willingness to support children's involvement in decision-making (Borland et al., 2001). In the UK 'the idea of providing services and institutions *for* children' prevails; a top-down approach is led by adult understandings of what they think children need (James and James, 2012). A 'deficit model' of childhood predominates; children are understood as 'human becomings' with 'underdeveloped cognitive, emotional and social faculties', unable to become 'full human beings' until they turn eighteen (Cassidy and Lone, 2020, 17). Many adults remain sceptical about children's capacity to express an opinion, viewing children as inexperienced, immature, lacking in competence, judgment, knowledge authority and status (Lundy, 2007; Joining Forces for all Children, 2021). This is notwithstanding suggestions that both children and adults are 'in the state of both being and becoming', that we should all be viewed as 'active social agents … constantly developing and changing' (Cassidy and Lone, 2020, 18).

Such perspectives are evident in 'everyday discourse' on privacy (Milkaite et al., 2021), and in data protection legislation; notably UKGDPR Article 8 views under-thirteens as incapable of consenting to use of their data by information society services. Livingstone and Third (2017, 415) suggest that because children are constructed as 'developmentally inferior and more vulnerable' they are denied 'rights that go beyond vulnerability, notably the right to participate in society as agents, let alone citizens'. Children's views are not considered relevant or important; children are excluded from discussions, it being assumed that they lack the ability to offer meaningful contributions (Barassi, 2019). Children are accordingly frequently represented in data policy as criminals or victims or are simply missing from the discussion (Defend Digital Me, 2021). Children's needs are also rarely considered by those formulating digital policy (UN, 2014; UNICEF, 2020). Policy debates about children's engagement with the digital world are limited in two respects; they are dominated by 'a discourse of fear' underpinned by a desire to protect children and by the voice of adults who claim to understand what children need (Coleman et al., 2017). As Lupton and Williamson (2017) highlight, however, one of the UNCRC's central concerns is that children should be able to 'speak for themselves', because adults cannot be relied upon to speak for all children and because adults' interests may not coincide with children's interests.

The Committee in its 2014 report on Digital Media and Children's Rights recommended explicitly that, when developing laws and policies, states should 'promote and facilitate regular public debates and the active involvement of all stakeholders, in particular children', and that children should be 'consulted in order to take into account their views and experiences' (p19, p21). Little progress appears to have since been made in the UK. Not only have children not been asked to express a view on UK Government data policy, in 2022 the Office for Statistics Regulation expressed concern about the visibility of children in the official statistics which inform policy, suggesting 'official statistics need to give children and young people a voice, including a voice in how their data are used' (OSR, 2022).

Whilst the devolved jurisdictions appear committed to considering children's views (Children's Commissioner for Wales, undated; Scottish Parliament, 2020), concerns continue to be expressed about children's ability to engage with government. It is suggested that governmental decision-making processes need redesigning to ensure children's views feed into policy; it is argued that to ensure the effective implementation of Article 12 governments should stop treating children as 'passive objects in need of adult protection' and recognise them as 'active participants' in decision-making (Observatory of Children's Human Rights Scotland and CYPCS, 2020).

5. Involving children in data policy

This article proposes a model for supporting children to become active agents and participants in data policy. Whilst designed to respond to an identified need to ensure children's views and experiences are reflected in the UK's developing data policy, this model or strategy could, however, be used in other jurisdictions. Such a model accords with the views of the UN Special Rapporteur on the Right to Privacy, who argues that in order to promote children's privacy and foster autonomy states must 'incorporate children's views, children's strategies for privacy' and the 'findings of child-focused research' in public policy (2021b, para 126). It reflects the Committee's perspective that when developing legislation and policies in relation to the digital environment, states 'should involve all children, listen to their needs' and 'ensure that their views are considered seriously' (UN, 2021a, paras 17–18).

The Committee's General Comment No 20 also explicitly calls upon states to ensure *adolescents* are involved in developing, implementing, and monitoring legislation and policies affecting them (UN, 2016) Whilst adolescents will have important views and experiences to share, the Committee elsewhere, of course, suggests states should presume every child has capacity to form their own views; capacity does not require the child to have 'comprehensive knowledge' of the matter affecting them, simply that they have 'sufficient understanding to be capable of appropriately forming her or his own views on the matter' (UN, 2009, para 21). In suggesting how the UK Government could engage with children, it is recognised that younger children may also provide valuable views provided

engagement methods are adapted to recognise their interests, routines, levels of understanding and preferred communications methods (UN, 2005; Borland et al., 2001).

5.1   What participation entails

Article 12 is viewed as a particularly important right for children, because of the status it affords children as rights holders entitled to participate in decision making (Cuevas-Parra, 2020, 83). Recognising that understanding of what effective participation entails is key to ensuring data policy is truly informed by children's views, this sub-section provides an overview of the key child participation theories which have informed this paper.

Sinclair (2004) suggests participation is best understood by considering four dimensions; the level of participation (to what extent children are actively engaged and in control of the process); the focus of the decision-making in which children are involved (e.g. in private at home or publicly, in the context of policy making); the nature of the participation activity (consultation forum, survey etc.); and the type of children involved. Sub-section 5.1 discusses the participation level, considering how to ensure children's participation meets, or exceeds, the requirements of Article 12. Sub-sections 5.2 and 5.3 address dimensions three and four.

Hart's Ladder of Participation (1992) is one of the most influential models for considering children's level of participation (Shier, 2001). Hart defines participation as 'the process of sharing decisions which affect one's life and the life of the community in which one lives.' Arguing that participation should not be 'tokenistic', he suggests participation only begins when children volunteer for a project with full understanding of the intentions of the project they are involved in and awareness of who and why someone has decided to involve them; when they have a meaningful role to play; where their opinions are treated seriously; and where they are informed of the results of their engagement (1992, 5).

Some academics have questioned the validity of Hart's hierarchical ladder, arguing that the child-initiated, shared decision making positioned on the highest rung of his ladder, may sometimes be inappropriate. They note that different levels of participation may suit different projects, suggesting consideration should be given to the context and purpose of children's participation to determine the most suitable approach (Sinclair, 2004). McMellon and Tisdall (2010) argue further that Hart's ladder fails to consider the important role played by approaches which are adult-initiated but involve shared decisions with children.

Some of these issues are remedied by Treseder's (1997) model, which uses a segmented, circle to outline five possible approaches to participation: children initiated, shared decisions with adults; children initiated and directed projects; adult initiated, shared decisions with children; children consulted and informed; and children assigned but informed (where adults decide the project, children understand what is involved and why they have been asked to participate, and adults respect their views). Shier's (2001) model,

however, perhaps more clearly indicates the *minimum* that organisations must achieve to ensure children's participation complies with Article 12 UNCRC; children should be supported or provided with clear opportunities to express their views, and those views should be considered. (Where there is good reason why children's wishes cannot then be acted upon, Shier suggests children should be told why, with consideration given to exploring with children how their objectives could be attained).

It is recognised that this example of the 'minimum' needed to achieve participation which is taken from Level 3 of Shier's hierarchy may be interpreted by some as 'consultation' rather than 'participation'. Although Sinclair (2004) suggests participation is often understood to simply mean being spoken to, listened to, and consulted, there is some debate about whether consultation is different to, the same as, or a sub-category of participation (Thomas, 2007). Whilst Shier understands consultation is a form of participation, he draws a distinction between consultation, where children participate by providing views to aid the decision-making process and *active* participation, where children participate at the level where decisions are made and have 'real decision-making power' (Shier, 2001, 113–4). Although Article 12 does not require children to *actively* participate*, children's involvement at the point of decision making undoubtedly affords benefits both to children and society, improving service quality, increasing self-esteem and responsibility, and supporting children's future citizenship and democratic participation (Shier, 2001).

Whatever form participation takes, the Committee suggests participation should *impact* on decision making, explaining that the term participation:

> is now widely used to describe ongoing processes, which include information sharing and dialogue between children and adults based on mutual respect, and in which children can learn how their views and those of adults are taken into account and shape the outcome of such processes (UN, 2009, para 3).

Children's participation should, therefore, go beyond passive engagement in discussions (Cuevas-Parra, 2021). It entails two-way dialogue and the empowerment of children (Sinclair, 2004). Whilst McMellon and Tisdall (2020, 169) note many organisations 'are not set up' for children's views to have an impact, Sinclair (2004, 111) suggests participation should be 'undertaken with the very specific purpose of enabling children to influence decision-making and bring about change'.

It is Lundy's (2007) model which perhaps most clearly reflects the Committee's understanding of how participation can meet Article 12's requirements. Her model, comprises four components, forming part of an iterative process of consultation, feedback, and consultation:

Space: Children must be given the opportunity to express a view

Voice: Children must be facilitated to express their views

Audience: The view must be listened to

Influence: The view must be acted upon, as appropriate (Lundy, 2007, 933).

Whilst initially developed to address barriers preventing the meaningful and effective implementation of pupils' Article 12 UNCRC rights within education, Lundy's model has since been used by local, national, and international organisations to facilitate children's participation in decision making in community, education, health, and legal settings and in development planning (Department of Children and Youth Affairs, 2015; WHO, 2018, Leicester City Council, undated). Lundy's model reflects the interrelationship between Article 12 UNCRC and other UNCRC rights (Articles 2, 3, 5, 9 13 and 19 UNCRC) (Lundy, 2007). It is recommended as the basis for a strategy for ensuring data policy is informed by children's views.

5.2   A package of participatory rights

The study discussed earlier in this article illustrates that having relevant, child-friendly information is key to ensuring children can effectively exercise their Article 12 UNCRC right. In its 'basic requirements' for implementation of Article 12 UNCRC, the Committee stipulates also that participatory processes should be 'transparent and informative,' that information is vital to ensuring children can provide effective, informed consent to participation (UN, 2009, p26).

Several 'layers' of information need ideally to be provided to 'support a genuinely participatory process': practical and process-related information, which establishes the roles and responsibilities of key actors; 'foundational rights-based information' which ensures children are aware of their rights afforded to them; and 'agency asserting information', which affords children understanding of and supports them to assert their rights (Stalford et al., 2017, 211–2). Article 5 UNCRC, which recognises the importance of adults providing guidance to children is thus relevant, as is Article 42 UNCRC, which requires states to provide 'foundational rights-based' information about the UNCRC to parents, children, politicians, civil servants, and the public (UN, 2005). Provision of child-friendly information about UK data protection legislation (which comprises both the

UKGDPR[3] and the Data Protection Act 2018) is also essential for children to exercise and comment upon data protection rights (Milkaite et al., 2021). Article 13 UNCRC, imposing an obligation on states 'to refrain from interfering in children's expression of their views, or in their access to information' (UN, 2009), together with Article 17 (affording a right to access information and mass media) have also been described as 'crucial prerequisites for the effective exercise of the right to be heard' (UN, 2009).

Article 3 is relevant to individual children, but also requires the state to consider the best interests of children as a group. It obliges the state, when identifying children's best interests, to examine the actions of public and private institutions, including legislative bodies. Every law, regulation and rule that affects children must be underpinned by the 'best interests' criterion (UN, 2013). Where states propose new legislation which will directly or indirectly affect the best interests of large numbers of children, states must 'provide opportunities to hear the concerned children … and to give their views due weight' (UN, 2009, paras. 72–4). Children's best interests require children's participation in decision making to be voluntary. The Article 19 right to protection requires risks posed by participation to be considered and addressed. Engagement should take place within a child-friendly environment.

The Article 2 right to non-discrimination further requires states to take appropriate measures to ensure children can express their views and that views are considered without discrimination on grounds of race, colour, sex, language, religion, political or other opinion, national, ethnic, or social origin, property, disability, birth, or other status. Any strategy for engaging with children must recognise that children come from different classes, cultures, homes, and educational and social circumstances (James and James, 2012; UN, 2021a; UN, 2021b). Engagement strategies must ensure representation from all relevant children. Materials developed to engage children must be child-friendly, multi-lingual, age- and capacity-appropriate and accessible in formats that can be viewed or read by all children. Although youth parliaments and children's councils play an important role in affording children a voice, the children involved in such formal representative participatory structures cannot be assumed to speak for all children (UN, 2009).

Care is needed to include the perspective of minority groups, included home-schooled children, children excluded from or regularly truanting from school, children in local authority care, children with disabilities, children for whom English is not a first language, children from travelling or socially excluded communities and from ethnic minority backgrounds (Borland et al., 2001). Whilst digital technologies can play an important role in facilitating children's participation, non-digital alternatives (including opportunities to participate at schools) are needed, recognising that some children cannot access information technology (Joining Forces for All Children, 2021). Borland et al. (2001) accordingly suggest that a combination of participatory methods is required to ensure all children can express a view, with consultation methods adapted to children's different

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[3] A modified version of the EU GDPR, incorporated into English law by the European Union (Withdrawal) Act 2018 and the Data Protection, Privacy and Electronic Communications (Amendments etc) (EU Exit) Regulations 2019

capacities. Whatever method is used, children believe a large group of many kinds of people should be involved (Borland et al., 2001).

5.3   Engagement methods

Numerous 'traditional methods' for engaging children are available to legislators and policy makers: individual interviews; group discussions; self-completion questionnaire surveys; interactive events; online discussion; events and conferences; consultation documents

circulated for written comment; online consultation, exercises and role play; visual methods including maps and flow diagrams; video and theatre; and formal structures such as youth forums and representative councils (Borland et al., 2001). Youth juries, underpinned by deliberative theory (the idea that 'collective judgments benefit from open discussion') have also been used to good effect to explore children's views about the digital sphere (Coleman et al., 2017, 11; Livingstone et al., 2019). Participatory action research (an approach which enables individuals to shape research to meet their needs) is increasingly being used with children (Borland et al., 2001).

Whilst all these methods can be useful, many have drawbacks (Borland et al., 2001). Individual interviews are costly. An experienced interviewer is needed to attain high quality, accurate information. Focus groups, group interviews, events, and conferences, whilst popular with children, pose challenges; some marginalised children and the less vocal may feel inhibited from expressing their true opinions. Formal written consultations, traditionally used by parliaments and government departments, may be inaccessible to children, particularly those with disabilities or poor literacy.

Despite concerns about some children's ability to use digital technologies, the pandemic has, undoubtedly, illustrated the effectiveness of online engagement. During the pandemic, children have gained information from and expressed their views directly to politicians via online meetings (Observatory of Children's Human Rights Scotland and CYPCS, 2020; Barnardo's, undated). They have contributed views through large online surveys (Children's Parliament, 2020a; Girlguiding, 2021; SRSG, 2021). New technologies, including social media, have been used to inform children about such surveys (Joining Forces for All Children, 2020). Poorly-designed surveys can raise literacy issues (Borland et al.,2001). During the pandemic, however, recognising that 'full implementation of article 12 requires recognition of, and respect for, non-verbal forms of communication' (UN, 2009, para. 21), some surveys have been made accessible to even very young children, by encouraging them to share views using pictures or words (Children's Commissioner for Wales, undated).

Many of these initiatives illustrate how children, child- and youth-led organisations and peer-to-peer engagement can be key to effective communication and effective participation (Observatory of Children's Human Rights Scotland and CYPCS, 2020; SRSG, 2021). Children can be 'instrumental' in providing information to other children (Cuevas-

Parra, 2021). Those actively engaged in formal civic participatory activities have valuable knowledge and experience, are often more aware of other children's needs, and can use children-only networks to engage particularly hard to reach and vulnerable children. Children can offer invaluable advice upon the design of child-friendly resources (Stalford et al., 2017), including how to convey 'often opaque' information about data collection and processing to other children (Milkaite et al., 2017, p6). Adults must be trained to facilitate effective participation. Children too, where trained, can also play an invaluable role, in identifying issues and collecting and analysing data from other children (SRSG, 2021).

The success of approaches involving children as co-researchers is particularly evidenced by the #CovidUnder19 project (undated), an initiative informed by Lundy and McEvoy's (2012) Statement of Common Understanding of a Human Rights-Based Approach for research with children. This project provides an example of best practice for engaging with children, with core features including: a focus upon 'children's enjoyment of their human rights'; the involvement of a representative group of children in developing research questions and methods, in analysing data, and in disseminating findings; disaggregation of data to identify difference; and provision of an open space for children to discuss issues important to them.

5.4 'Due weight'

Of course, it is not sufficient for children to simply *express* their views. Article 12 comprises 'two pivotal rights, the right to express a view and the right to have the view given due weight' (Cuevas-Parra, 2021, 83). The notion of due weight entails a right for children to have their views listened to, not just heard (Lundy, 2007).

Article 12 includes a caveat that due weight is to be given 'in accordance with the age and maturity' of the child. Henaghan (2017) expresses concern that this may mean a child's expressed views may be discounted if an adult decides that due to the child's age and maturity their views should be given no weight. He suggests this is 'disrespectful of children' and places them 'in an invidious position' where their view may be ignored because of an adult's perception of their immaturity (2021. 541). Arguably, all children's views should 'be seriously considered' (UN, 2009 [28]).

Some have argued that to ensure the effective implementation of Article 12 what is needed is: the 'transformation of political environments, structures and institutions to make them more respectful of and responsive to children's civic society' (Joining Forces for All Children, 2021, 11); the 'development of environments in which children can build and demonstrate capacities' (UN, 2009 [135]); and the removal of 'barriers which assume children's incompetence' (UN, 2009). Certainly, the success of any strategy for feeding children's views into data policy is ultimately dependent upon governments holding themselves accountable to children, being prepared to respond to and act upon their views and to provide feedback to children.

6.   Conclusion

During the pandemic, the UK Government adopted a data-driven approach which, it suggests, has proved successful in combating Covid-19. Although the government now proposes to build on this success, further developing its data-driven approach, little consideration has been given to how this may result in the increasing datafication of children. The 2020 UK Data Strategy does not consider children or their interests. It does not appear to be informed by children's views. Similar concerns are raised about the government's 2021 proposals for a new data protection regime.

Children have consistently expressed concern during the pandemic that they have not been listened to or considered. This article highlights that some children wanted to know how the UK Government was using their data, wanted to be able to express their views about data-driven decision-making, and have their views considered. It argues that considering these findings, and given the government's UNCRC obligations, which require it to treat children's interests as a primary consideration and to afford children a voice in matters affecting them, the UK Government should now contemplate how it can ensure data policy reflects children's views and interests.

It is not only the UK Government, however, which has an obligation to consider how to facilitate children's participation in matters affecting them. The Council of Europe and the Committee make similar recommendations suggesting that, at a pan-European level and at a global level, states should take steps to actively engage children in the design, implementation and evaluation of legislation and policy.

Children's participation may take various forms. As a minimum, however, children should be given the opportunity to express a view, be supported to express a view, and that view should be listened to and acted upon, as appropriate. Whilst online engagement methods have proved successful during the pandemic, a range of complementary methods should be used, recognising the diversity of children's needs, abilities, and experiences. Children should be invited to work with government to design and implement its strategy, to ensure its approach addresses children's needs, and that children who wish to engage in dialogue with the government about future data policy can do so.

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