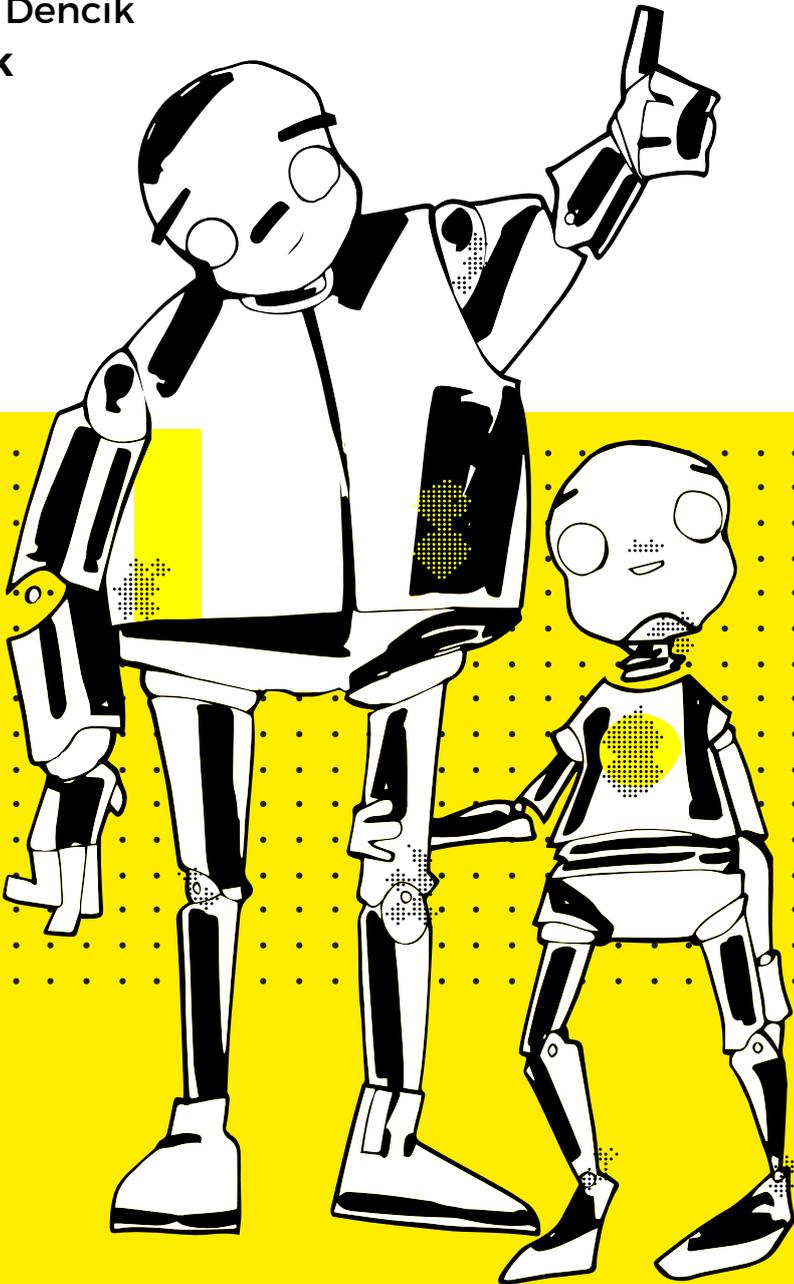


Advancing Data Justice in the Wellbeing of Future Generations (Wales) Act



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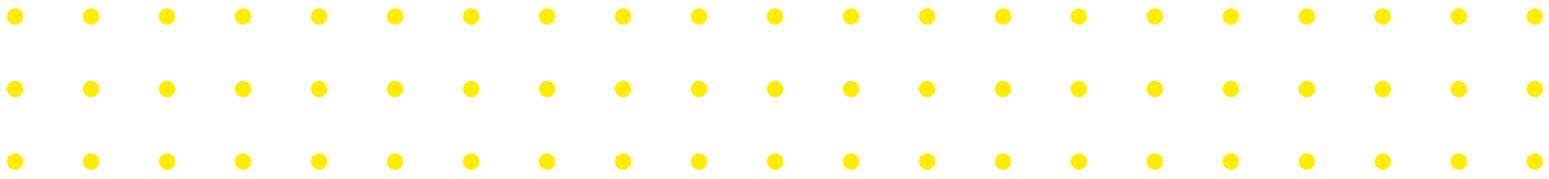
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INTRODUCTION

This report provides an overview of findings from a research project exploring the potential for advancing data justice in the context of the Wellbeing of Future Generations (Wales) Act implemented in 2015. Research was carried out during 2021 and the project was funded by the UK EPSRC Network+: Social Justice Through the Digital Economy.

Context

1. The Wellbeing of Future Generations (Wales) Act

The Wellbeing of Future Generations (Wales) Act (WFGA) is aimed at the Welsh public sector and centres social, cultural, environmental and economic well-being. Altogether there are seven well-being goals which constitute “a legally-binding common purpose”: a prosperous Wales; a resilient Wales; a healthier Wales; a more equal Wales; a Wales of cohesive communities; a Wales of vibrant culture and thriving Welsh language; and a globally responsible Wales. Specifically, the Act states that all public bodies in Wales must set and publish well-being objectives and then take practical steps to achieve those objectives. The WFGA also stipulates that public bodies demonstrate they have applied “the five ways of working”. These are safeguarding long-term needs; acting to prevent problems; integrating the wellbeing objectives with other institutional objectives; more collaboration; and meaningful citizen involvement (Welsh Government, 2015: 7).

2. The Welsh digital transformation agenda

The use of data-driven decision-making has been steadily growing in Wales’ public sector in part due to the emergence of a digital agenda primarily oriented towards a perceived need to modernise and digitally transform Welsh public services (see Brown, 2019). Since 2015 a number of reports have argued that Welsh public services are “failing to capture the potential of digital approaches to improve outcomes for the people who use public services” (Waters, 2018: 7); and that its digital services “are stuck in the mid-1990s” (Hitchcock, 2016: paras. 1-6). The influential Brown review explored how “Wales 4.0” can become a global leader in digital innovation and recommended establishing a Future Economy Commission, with responsibility for advising on the coordination, oversight and delivery of Wales 4.0 with the Future Generations Commissioner acting as one of its standing members (Brown, 2019: 71).

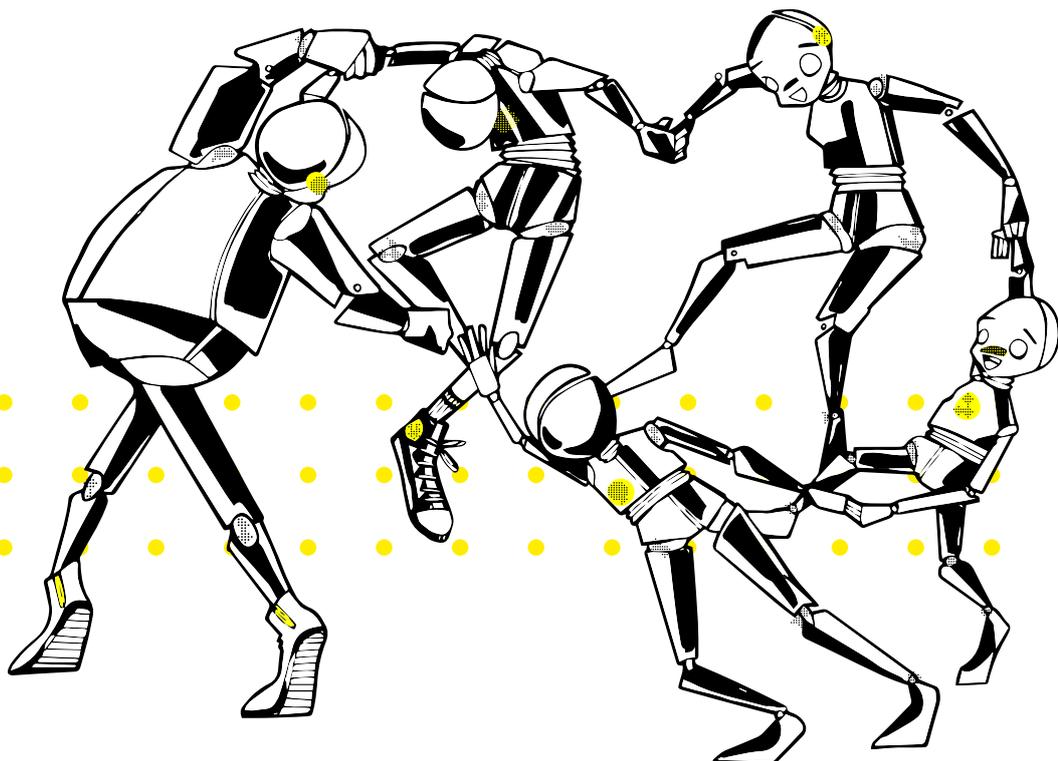
However there are gaps in relation to how this digital transformation might be governed and advanced in a way that aligns with the WFGA. For instance there is a desire to pursue an open data approach to public services, but this is articulated without reference to governance frameworks except for data protection guidelines (Socitm, 2017: 4 and 26). Calls for standards and principles to accompany accelerated datafication and data sharing in the public sector, like digital service standards and user centred design approaches (Waters, 2018: 14), are lacking data governance frameworks, or clear avenues for engaging citizens and ensuring a commitment to

equality. In 2020 the Welsh government established a new arms-length body, the Centre for Digital Public Services, to be responsible for direction, standards, guidance, and training, but there is little in the way of data governance arrangements other than a vague commitment to “data ethics, transparency and trust” (Centre for Digital Public Services, 2021).

3. Project rationale and areas of focus

This project is intended as a follow-up to and continuation of ongoing research at the Data Justice Lab on the theme of civic participation in datafied societies, including the challenges and possibilities for advancing citizen and community interventions in the design, governance and use of data driven technologies. The rationale for this project is to determine the suitability of applying the WFGA as a framework for advancing data justice concerns, given the Act’s social justice orientation and commitment to wellbeing. Three strategic areas at the intersection of the WFGA and data justice provide a lens for exploring this applicability: civic participation, public procurement, and data governance.

The Act’s emphasis on citizen involvement as one of the Five Ways of Working complements our own interest in civic participation, while the commitment to embrace and invest in “the technologies of the future” is currently lacking an underpinning data governance model that contributes to the Wellbeing Goals and ensures the spirit of the Act is not jeopardised. Finally, given the Commissioner’s Section 20 Procurement review and prominence of procurement as a site of intervention in data justice debates, this area suggests common ground between the Commissioner’s priorities and data justice agendas.



METHODOLOGY

Desk research

The first phase of research involved desk research, encompassing a scoping exercise to identify possible strategic areas at the intersection of the WFGA and data justice, and, once these had been selected, a review of policy documents and academic publications that mapped the relevant policy debates within each of the strategic areas.

Reports and other materials from the Future Generations Commissioner's website were also analysed to establish key stakeholders, some of which were later approached for interview, using links and references to gather further documents to inform the key themes in each strategic area (participation, procurement and data governance).

A shortlist of initial expert interviewees was also selected from across the Welsh public sector, central and local government, civil society and academia that corresponded to the three areas of interest with some interviewees having expertise from more than one of these areas. Based on this short-list, we used a snow-ball approach to broaden our sample.

Interviews

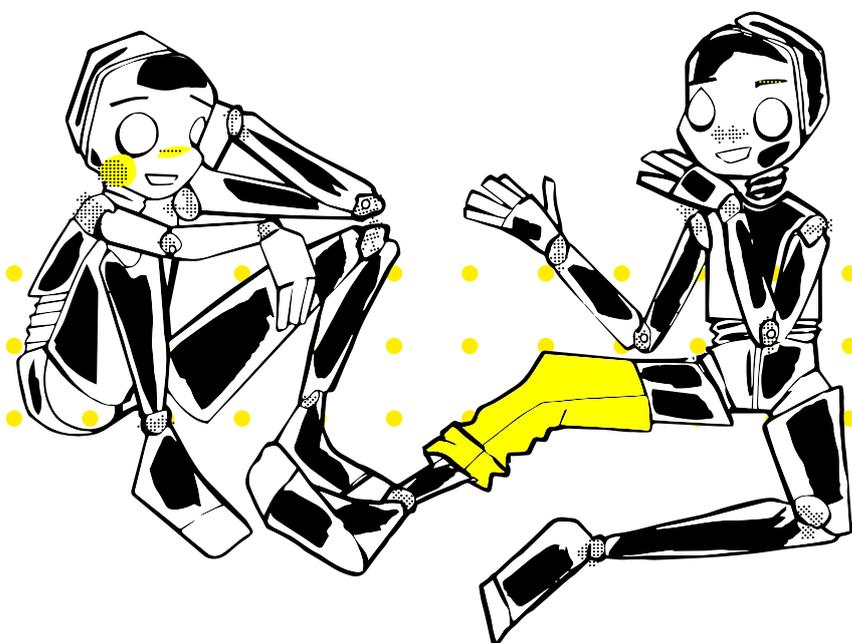
The second phase of research involved creating interview schemas and conducting semi-structured interviews with twenty-six stakeholders, with each interview lasting approximately thirty-fourty minutes. During the interview phase we adopted an inductive approach to test and refine earlier hypotheses, as well as to adapt the interview schemas; for example, we discovered during interviews that co-production and user-centred design were prominent themes in relation to participation. The interviews were then transcribed and thematically analysed based on the three strategic areas.

Overall, for each of the three strategic areas the aim was to explore the opportunities and challenges of applying different models of civic participation, procurement, and data governance to digital developments relating to the WFGA.

Workshop

The third phase of research involved hosting a workshop to reflect on the project focus areas and findings with relevant stakeholders. The workshop took place on the 21st of October, 2021 online and was attended by participants from across the public sector, local and central government, the Commissioner's Office and civil society in Wales, as well as members of the Data Justice Lab. The objective of the workshop was to present preliminary findings from the research project, gather insights to inform the final project report, and to consider possibilities for interventions and further actions to advance data justice in relation to both the WFGA and public

sector deployment of data centric technologies. In particular, we asked participants to discuss three potential policy interventions by posing six questions that emerged from the research findings. The outcome of the workshop was analysed and written up as a separate report.



REVIEW OF POLICY DEBATES

In this section we provide a summary of key literature and policy documents relating to our three strategic areas of concern: procurement, civic participation, and data governance.

1. Public Procurement

The UK Procurement Landscape

In the UK, procurement is the government's largest expenditure, amounting to £284 billion a year and around 13% of the UK's GDP (Glove and Lasko-Skinner, 2019: para. 2). Although that is not high by international standards, it represents a huge power of spend that can and has been leveraged to achieve broader policy objectives (Davies et al, 2018: p.3). Whilst the public sector "has always bought from the private sector", the introduction of compulsory competitive tendering in the 1980s led to a significant expansion of private contracting that coincided with the government's privatisation agenda (ibid.: 4). This was reaffirmed by subsequent reviews during the Blair administration such as Deanne Julius' 2008 review of the UK's "public sector services industry" which, it found, "is one of the largest and most developed in the world" (Uyerra et al, 2013: 234). Further, under Blair's administration procurement was leveraged to stimulate innovation, resulting in mechanisms like Public Finance Initiatives (PFI) and public-private partnerships (PPP); while under Cameron there was a shift to a focus on efficiency in government procurement (Uyerra et al, 2013: 234). According to the Scottish Government, the priority for all public procurement is to achieve Value for Money (VfM), which does not mean "lowest price" but a combination of whole life cost and quality (Scottish Government, 2008). Further, Harland et al highlight that accountability, value for money, competition, efficiency and cost effectiveness are high priorities for procurers while equal opportunity, green procurement, ethics, social inclusion, sustainability and broader government objectives constitute lower ranking priorities (2007: 353).

However, the prominence of economic priorities in procurement such as the VfM principle has been challenged by a growing commitment to socioeconomic policy goals at the national and supranational level. In Scotland, the principle of community benefits has decentred economic priorities in public procurement processes since 2008 and is defined by the Scottish Government as "contractual requirements which deliver a wider social benefit in addition to the core purpose of the contract" with a particular focus on training and employment outcomes (Scottish Government, 2008). This was further cemented by the Procurement Reform (Scotland) Act of 2014 which stipulated that Community Benefit clauses be used wherever there is an appropriate legal basis (Sutherland et al, 2015: i). In terms of UK wide policy, the Coalition Government's 2012 Public Services (Social Value) Act urged more public sector bodies to consider social and environmental value alongside quality and cost during bid reviews, resulting in the development of a common values procurement framework, the most recent version of which was published in December 2020 (Gair and Bailie, 2020: para.3; Government Commercial Function, 2020). The framework

now recommends that social value should constitute a minimum 10% weighting during tender review, and this has to be accounted for, not simply ‘considered’ (Gair and Bailie, 2020: para.3). Elsewhere, the European Commission has promoted socially responsible public procurement, which encompasses a commitment to “equal opportunities, accessibility design for all, taking account of sustainability criteria, including ethical trade issues; and wider voluntary compliance with corporate social responsibility” (European Commission, 2010, cf Wontner et al, 2020: 3).

The progressive procurement movement stems from the Social Value Act but contains a stronger commitment to restructuring local economies and supporting local communities by procuring from local “anchor institutions” that have a significant stake in cities and can stimulate local supply chains, thereby providing jobs while retaining local wealth (Preston City Council, 2021; Jackson, 2016: 6). A number of socioeconomic benefits are attributed to progressive procurement, including the development of cooperatives and new forms of enterprise, as well as stimulating social innovation through institutions co-designing services with communities (Jackson, 2016: 7-8). A number of cities across the US and Europe are implementing these kinds of procurement policies, and in the UK the Manchester-based Centre for Local Economic Strategies (CLES) have been particularly active in working with local authorities to implement progressive procurement policies through community wealth building programs (examples include Preston, Birmingham, Wigan and Wirral to name a few) (ibid: 4; Glover and Lasko-Skinner, 2020: para.4). Although Glover and Lasko-Skinner suggest there is less appetite for progressive procurement at the central government level (ibid: para.5), CLES points out that in Wales the procurement pillar of community wealth building is being used to advance the wellbeing goals being pursued for future generations, and that procurement is “seen as an important aspect to the protecting and rebuilding of the Welsh economy” (CLES, 2020: 10). Elsewhere, the People’s Procurement project from the Manchester-based Jam and Justice programme explored ways of facilitating citizen participation in recognition of the participation gap in existing social value procurement frameworks (CLES, 2018: 5). In addition, it has been noted that the Covid-19 pandemic has strengthened the case for community wealth building initiatives given the need for economic recovery and the recognition that community wellbeing needs to be a priority (CLES, 2020: paras 1-3).

However, Wontner et al. (2020) find that in practice public sector procurers have to make trade-offs between competing policy objectives; for example the impact of austerity can sometimes result in cost being prioritised, particularly in a context of budget reductions. Similarly, in their discussions with senior public procurement practitioners Harland et al found that while it was beneficial to be able to demonstrate a broader policy role, “in practice all the measures and drivers steered them to a more compliant, efficiency-focused role” (2007: 352).

Procurement of Data-Driven Technology

Whilst there has been prominent engagement with public procurement in several different sectors, the procurement of data-driven technology remains marginal within those debates. The Covid-19 pandemic accelerated procurement of new technologies across public sector bodies, and saw the establishment of prominent, and controversial, new partnerships between governments and technology providers

(Dencik, 2022). At the same time, civil society actors and research institutes have identified procurement policies as a key area within which efforts towards more democratic and accountable arrangements on the use of data-driven innovation can be secured (Hintz et al., 2022). For example, in a recent position paper the AI Now Institute, City of Amsterdam, City of Helsinki, Mozilla Foundation and Nesta all call on the EU to explore enforceable contract conditions for AI procurement, such as those drafted by officials from Amsterdam and Helsinki which include clauses on data quality, data access rights, transparency and auditing (AI Now, 2020; Government of Amsterdam, 2019: .4-7). Although a number of AI procurement guidelines aimed at the public sector have emerged, such as the UK's "Guide to using AI in the Public Sector", due to a lack of implementation organisations like AI Now and others state there is a need to go beyond these by enshrining democratic values into binding contractual clauses (ibid; Mozilla Foundation, 2020). Further, in response to the New York City Automated Decision Systems (ADS) Task Force, an NGO coalition recommended a series of safeguards to be written into vendor contracts including trade secrecy waivers and mandatory validation studies (Richardson, 2019: 29 and 46). Elsewhere, Barcelona City Council has leveraged the procurement process so that Vodafone, a provider of telecoms services to the city council, is contractually obliged to hand over the data it collects to the council for anonymised access via the city's open data portal (Meadway, 2020: 37).

According to Goldenfein (2019), the ideal time to address questions of accountability and transparency in automated systems is during their procurement and development (41). Furthermore, in light of the nature of the AI landscape, Goldenfein argues that fairness and transparency principles risk corporate co-optation and suggests that meaningfully leveraging procurement requires that public bodies know what to ask for and "recognise their market power" by ensuring that trade secrecy is not prioritised ahead of good governance as well as having the ability to write effective requests for proposals or tender documentation. Furthermore, Meadway has explored the potential for procurement to foster the broader objective of building a digital commons, and recommends that local authorities should build consideration of the use of data for local public good into their procurement guidelines, as well as prioritise procurement from open source providers (2020: 5-6). This suggests that procurement may be a significant site for intervention in advancing data justice in relation to the WFGA.

2. Civic Participation

Understandings of Participation

A prominent approach to participation originates in democratic theory, and understands participation as the redistribution of power. Seminal texts in this tradition such as Sherry Arnstein's Ladder of Citizen Participation (1969) and Carole Pateman's Participation and Democratic Theory (1970) sought to distinguish between full participation and "tokenistic", "partial" or "pseudo" participation (Carpentier et al: 20; Schonfeld, 1975: 20). For both Arnstein and Pateman decision-making power demarcates and is the foundation of meaningful participation; for example Pateman argues that full participation necessitates "equal power to determine the outcome of decisions", adding that influencing a decision is not the same as being able to

determine its outcome (cf. Carpentier, 2016). Similarly, Arnstein defines participation as “citizen power” as well as the redistribution of power that enables “the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future” (Arnstein, 1969: 216).

Turner (2014) further develops this understanding of meaningful participation in her study of a community participatory process implemented during a local economic redevelopment program in Louisville, Kentucky. Based on stakeholders’ experiences, Turner argues that in order for public participation to be effective it needs to be substantive, necessitating ongoing and active citizen involvement in administrative and developmental processes, from issue framing and planning through to decision-making, with the opportunity for everyone to impact the decision-making process (Turner, 2014). Turner’s concept of substantive participation is also informed by the Louisville residents’ reports of “limited opportunities for authentic participation, predominantly one-way communication, inadequate organisation and implementation, and feelings of powerlessness” (ibid: 886), which lead her to argue that a structural shift is required in the power relationship between public bodies, developers and citizens whereby administrators change their role from expert manager to cooperative partner and start working with citizens as equal partners. Turner identifies three barriers to substantive participation: the practical realities of life such as childcare or transport constraints; administrators who block any participation seen as challenging the administrative status quo or not supporting their agenda; and inadequate common participation techniques such as public meetings or hearings that “do not work” due to their predetermined public presenters and fixed topics of discussion and voting (ibid: 890).

Jacobs and Kaufmann (2021) unpack the growing popularity of another common participatory approach in government decision making - deliberative mini-publics - highlighting that this method lends a perceived legitimacy to public decision-making which, they suggest, is often the rationale for its use. For instance, citing Dryzek and Tucker (2008) they note the implementation of a mini public exercise in France in a context where “faith in the ability of elites to manage risks had been shaken”, explaining that to remedy this problem the French authorities randomly selected and assembled a small number of citizens to discuss a public policy issue in order to obtain “social acceptance” of the policies in question (Jacobs and Kaufmann, 2021: 92). In particular Jacobs and Kaufmann take issue with the sortition component of mini publics, suggesting that self-selection could be a more legitimate and effective means of organising participation primarily because “the positive effect of improved citizen representation is cancelled out by the negative effect of excluding interested stakeholders from participating” (ibid: 104).

In thinking about contemporary forms of participation in government decision-making, Kelty (2017), however, argues that participation oscillates between the grammars of purpose and institutionalisation, or between an optative mood and a critical one, with the former signalling normative enthusiasm and the latter co-optation at the hands of over bureaucratized, extractive, or exploitative participation models. For Kelty, then, Arnstein’s Ladder is less a theory of participation than a critique of the implementation of participation, namely the “maximum feasible participation”

that, in the context of the US, was statutorily mandated by the Economic Opportunity Act of 1964 but which failed to define what this meant, such that participation in this context became overly bureaucratic and technocratic (ibid: 82). Kelty argues that since then two differences have emerged: participation today is no longer about the participation of groups but individuals; and the institutionalisation of participation is becoming more fragile and temporary. Lastly Kelty warns against “too much emphasis on the discursive features of participation” because these foreground normative claims to the detriment of the mechanics of institutionalisation that, to his mind, “seem to almost inevitably lead to an experience of co-optation” (ibid: 88).

Participation and Data

In terms of participation and datafication we are potentially witnessing, to use Kelty’s words, a moment of “normative enthusiasm”, with an expanding number of calls for participatory processes evident across various initiatives. As Gutiérrez points out datafication “has altered the way we think about participation and equality and generated new rules about who can be a participant”, introducing novel challenges such as her assertion that “the nature of civic life itself shifts” because Arnsteinian participation is now dependent on citizens’ access to digital technology (2019: 41). This understanding shifts the traditional political studies approach to participation, in which access and interaction are necessary but not sufficient conditions for participation because of the focus on the redistribution of power (Carpentier et al, 2019). Gutiérrez suggests that in order to advance participation in datafied societies, more citizens need to incorporate data practices into their daily lives but also occupy decision-making positions in data-related initiatives, requiring much more significant involvement in data infrastructure and increased data literacy levels. Gutiérrez’s argument is characteristic of those analyses in the literature that propose advancing public participation through data driven technologies, as opposed to public participation in decision making in relation to the use of data technologies. This distinction borrows from Carpentier’s identification of two interrelated forms of participation in the context of media studies: “participation in the media and through the media” (Carpentier, 2012: 67).

In the latter category there are many UK examples of policy-oriented think tanks advocating for public participation, particularly deliberative and discursive processes. For example, the Royal Society for Arts, Manufacturers and Commerce (RSA) favours long-form deliberative processes, where “ideas are exchanged (and often respectfully challenged) in order to reach a conclusion in a collaborative manner”, arguing that “public deliberation is an essential component of developing effective Society-in-the-Loop systems” (2018: 14 and 19). Society-in-the-loop (SITL) systems “go beyond embedding the judgement of individual humans or groups in the optimisation of AI systems to encompass the values of society as a whole” (ibid: 14). In addition, the Centre for Data Ethics and Innovation (CDEI)’s report on local government uses of data during the coronavirus pandemic stresses the importance of technology governance being informed by engagement with local citizens, highlighting polling which suggests 50% of people “would be interested in engaging with their local authority to give their opinion on how data should be used to make decisions” (CDEI, 2021: 28). The public participation charity, Involve, have also said “the public needs to have the opportunity to contribute to discussions about the appropriate uses of

data” (Adams & Burall, 2019: 3), citing citizens juries, citizens panels, and distributed dialogues as useful methods. Further, Nesta has argued that in the context of data-related issues we must move “beyond citizens’ assemblies and traditional public engagement techniques” such as surveys and town hall meetings “which regularly fail to enthuse people to participate and can be seen as tokenistic rather than leading to real change” (Ramos, et al., 2019). Finally, the Ada Lovelace Institute (ALI) recently conducted a series of “Community Voice” workshops in relation to biometric data, in which the privilege and power contained within data systems were highlighted by participants, and which also revealed a strong appetite for more public participation (Patel & Peppin, 2020). To advance this, ALI propose citizen juries and the involvement of Black, Asian and minority ethnic, LGBTQI and disabled people in the design, development and deployment stages of technologies.

Co-production

In the context of data, co-production methods offer a way of empowering affected communities to have stronger input and influence vis-à-vis datafied public services in their local area. Co-production itself is a model of public engagement that originates from Elinor Ostrom’s study of Chicago police in the 1970s which highlighted a problematic lack of public involvement in policing and argued that the production and delivery of services is limited without the active participation of the recipients (Boyle and Harris, 2009: 13; Sorrentino et al, 2018: 279). Since then co-production has been developed by human rights lawyer Edgar Cahn into a broader vision for just and equitable public services in the US that builds on his work on timebanking and seeks to reduce economic disparity by validating and rewarding unpaid labour carried out by the “core economy” of families, neighbourhoods, communities and civil society (New Economics Foundation, 2008: 1; Boyle and Harris, 11). In 1996, for example, Cahn founded the Time Dollar Youth Court composed entirely of young offenders to help combat crime and reverse the near-collapse of the youth justice system in Washington DC (Boyle and Harris, 2009: 13).

In the UK co-production has gained prominence as a valuable tool for public service reform but has varied in application in line with shifts in public administration models; for example Sorrentino et al (2018) highlight how, in the New Public Management era, beneficiaries of public services were “rebranded” as consumers that can exercise choice and co-production became an additional rather than inherent feature of public service delivery that was used to increase efficiency and “do more with less”. This emphasis on efficiency is different, they argue, to the more recent “new public governance model” where there is more emphasis on participatory governance and collaborative partnerships and co-production is seen as a useful way to address complex social problems that “reinvigorates the achievement of public purposes”.

As Sorrentino et al (2018) point out, defining co-production is not a straightforward task as it has been used to describe myriad collaborative governance arrangements and takes many different forms; for instance it can be individualised so that service users receive personal benefits from participating in the production of a service, or co-production can be collective by engaging other actors besides individual end users and designed to produce benefits for the entire community. On the whole, though, co-production is “built on the principle that those who are affected by a service are

best placed to help design it” and rejects the traditional understanding of service users as passive dependents of public services, instead redefining the service / user relationship as one of co-dependency and collaboration (Involve website, 2021). For this reason co-production is sometimes seen as having transformative potential to reduce inequalities and empower communities to actively shape their own life-worlds through the inclusion of marginalised voices in existing power structures (cf. Bell and Pahl, 2018). Besides the reciprocal relationship and sharing of power between service provider and user, another core tenet of co-production is positioning service users, their families, neighbours and wider communities as “assets” and “hidden resources” that “can be used to transform services—and to strengthen their neighbourhoods at the same time” (Boyle and Harris, 2009: 3).

However, Bell and Pahl draw our attention to how inclusion within existing structures is not in and of itself transformative when the effects of social inclusion fail to challenge “the unequal and ongoing structures through which inequality, oppression and marginalisation are (re)produced” (2018: 110). Further, they highlight how neoliberalism can constrain and co-opt co-production’s emancipatory potential, arguing for a critical awareness of how contemporary British neoliberalism’s conservative communitarianism can utilise co-production to serve its own ends, despite “attacking the very conditions that make empowered communities possible” (ibid: p.112). This is evidenced, they suggest, by the 2010 Conservative manifesto called Invitation to Join the Government of Great Britain “as if co-production would become the principle around which the state was organised” (ibid).

User Centred Design

User centred, or human centred, design has become a key approach within Welsh Government’s public sector digital transformation programme, featuring prominently in its digital strategy. In this strategy user centred design is seen to be “essential in providing more accessible and inclusive services, eliminating barriers that prevent people from being treated equally” and “will deliver better outcomes for all” (Welsh Government 2021). The literature indicates the prevalence of a “user turn” in Western government digital agendas which, as Martin and Goggin have pointed out, tends to “project a rhetorical concern with engaging active, participatory citizens in public service design” (2016: 439). Originating in the private sector (Lee, 2015), user-centred design has been described as an innovative and creative approach to problem solving (Designkit.org, 2021) but is viewed by some as having limited value in the social realm for primarily being an object-centred method “for designing products that will be used or consumed by humans” (Janzer and Weinstein, 2014: 330).

Its participatory potential cannot be assumed therefore and, as Storstein-Spilker et al have observed in relation to the Norwegian public sector’s policy discourse on user-centred digitalisation, it is characterised by “more of a general idea of thinking about the user, rather than involving citizens directly in datafication practices” (2020: p.4). Janzer and Weinstein suggest that if design-based social change is to produce lasting and effective outcomes it “must not be dependent upon the designer” but be rooted in empowerment built on extensive and contextual research with affected communities (2014: 331). Further, in contrast to the intentions of Welsh government’s digital strategy, Martin and Goggin’s study of how the Australian government configures women as

end users of digital government services found that user-centred design concepts are “less aligned with concepts of equality or inclusion than convenience, efficiency, productivity, and cost reduction” (2016: 452). Consequently they argue that despite the fact that user-centred design principles are oriented toward supporting the behaviours and cultures of use of target user groups, ultimately this way of delivering public services “neutralises difference” rather than comprehending or responding to it, by configuring all citizens as a homogenous group of end-users.

3. Data Governance

Perspectives on data governance

Data governance has evolved from data, or information, management, which was traditionally a straightforward, linear and predictable process managed by a single organisation and largely a case of deleting data sets that were no longer needed. However, the increasingly complex and networked nature of data lifecycles has disrupted this approach to data management and renders many traditional governance points of intervention and societal steer no longer fit for purpose. At the same time, data governance also emerges from regulatory frameworks such as data protection and Freedom of Information (Royal Society and British Academy, 2017a; 2017b).

In the UK, data governance debates have gathered momentum since the publication in 2017 of the Royal Society and British Academy’s joint report on data governance in the 21st century, which argued for a broader, more holistic understanding of governance as both data management and data use. Alongside the creation of a data stewardship body, the report recommended that data governance models foreground purpose and be context specific, requiring sector-by-sector rather than one-size-fits-all approaches and a renewed governance framework that favours high-level principles such as wellbeing that can across context (Royal Society and British Academy, 2017a). Another key contribution to governance debates was Hall and Pesenti’s 2017 independent review of the AI landscape, which was commissioned by the UK government and argued that “positioning the UK as a world leader in AI and data-driven technologies would necessitate developing new ways for organisations to responsibly share, pool, access and use data” (Ada Lovelace and Council for AI, 2021: p.8). This review recommended data trusts as the most appropriate mechanism for ensuring trustworthy access to data (Hall and Pesenti, 2017). Together these reports have helped to shape and institutionalise the conceptualisation of data governance as data stewardship, underpinned by trustworthy and responsible data sharing.

Indeed data stewardship is becoming a dominant approach to data governance and is viewed as a remedy to the extractive and exploitative business model of the data economy which can promote governance practices and data sharing more in line with notions of the common good. In the literature data stewardship borrows some principles and concepts from the stewardship of land and other natural and physical resources as well as Elinor Ostrom’s seminal work on governing commons (e.g. Ada Lovelace Institute, 2021 and Manohar et al, 2020). Others have framed data governance as being equipped to counter “the twin challenges of data use”: on the one hand better governance arrangements are needed to halt overuse and misuse

of data, associated with a loss of citizen agency, community control and algorithmic transparency, while on the other hand underuse of data creates missed opportunities for citizens and communities to extract social and public value from their data (Bass and Old, 2020: 6-7). In this context, the point of data governance is to ensure “easy and safe data sharing in ways that enable innovation without compromising individual rights and security and to derive public good” (Manohar et al, 2020: 4).

Data Trusts, Data Commons and Data Cooperatives

Data trusts, data commons and data cooperatives are currently gaining prominence in the UK as three potentially promising stewardship governance models, representing a significant shift away from data ownership debates which have been “extensively critiqued” in the search for alternative governance paradigms (Ada Lovelace, 2020: 16). It should be noted that these three models are overlapping and share similarities and, as highlighted by Nesta, in reality “no clear-cut boundary exists between each of the models” (Bass and Old, 2020: 11). Further, despite recent traction, these models are very much still evolving as there remain “important challenges to be addressed in moving discussions from theory to practice” (Montgomery and Lawrence, 2021: 94), a gap observed also by others (see van Geuns and Brandusescu, 2020).

Data Trusts

Data trusts have emerged as a legal mechanism for individuals to pool the data rights created by current legislation such as the GDPR or intellectual property rights into an intermediary organisation – a trust – in which trustees steward and make decisions about data use on behalf of beneficiaries, which can range from data subjects to those that need protection from data being abused (Data Trust Initiative, 2020; Ruhaak, 2020). Data trusts leverage trust law, which has a long history in the UK in establishing the rights and obligations of different parties in relation to an asset, in order to bind trustees to strict and enforceable fiduciary responsibilities of undivided loyalty to their beneficiaries (Montgomery and Lawrence, 2021; Delacroix and Lawrence, 2019; Manohar et al, 2020). Acting as an independent intermediary between data subjects and data collectors then, data trusts are viewed as a distinctively robust legal structure that can provide institutional safeguards to protect individuals from data related harms (Ada Lovelace Institute, 2021) and accept liability if data is misused in a way that goes against the agreed terms of the trust (Open Data Institute, 2019). According to research by the Aapti Institute, data trusts are the only model of stewardship with a defined framework of legal oversight included as part of its structure (Manohar et al, 2020).

Delacroix and Lawrence (2019) have suggested that data trusts can offer bottom up empowerment structures that are much needed to bolster insufficient top down regulatory efforts. In addition, some have argued that data trusts have the potential to counter power asymmetries because trustees can “leverage the bargaining power associated with the aggregation of data or rights in the trust to seek more favourable terms of use than any individual alone would be able to pursue” (Montgomery and Lawrence 2020: 102). Similarly, the Ada Lovelace Institute suggests that the goals of data trusts could be to enable citizens to reclaim agency over their data by increasing individuals’ ability to exercise existing data rights and supporting individuals and groups to proactively define terms of data use, “thus correcting power asymmetries”

(2021: 12). However as Ruhaak highlights data trusts will only be relevant or useful when there is an asset or a right that can be handed over to a board of trustees (2020: para.18).

In terms of practical application, the Open Data Institute (ODI) suggests data trusts could be used in a variety of contexts, from cities deciding how to use sensor data to NGOs and charities that want to use research or commercial data to solve problems. The ODI conducted three data trust pilots between December 2018 and March 2019 for food waste, illegal wildlife trading and city data for the Greater London Authority and Royal Borough of Greenwich respectively, and concluded that data trusts offer a useful way of increasing access to data while maintaining trust, and that there is “huge appetite for independent data stewardship” (Open Data Institute, 2019). However, there is a consensus in the literature that data trusts are currently a primarily “intellectual exercise which exist in controlled pilot stage implementations”, making it difficult to know their functionality outside these contexts (Manohar et al, 2020: 35).

Data Commons

Data commons refers to a broad spectrum of initiatives in which data is pooled and shared as a common resource among a group of individuals or organisations who collectively determine the rules that govern access to and use of that data (Bass and Old, 2020; van Geuns and Brandusescu, 2020). The appeal of implementing such a model is that it offers a “democratic mechanism for harnessing data’s value, where groups of people can pool and leverage their digital footprints on terms decided collectively” (Bass and Old, 2020: 7). This type of model borrows from Ostrom’s theories of the commons which defined a distinct category of goods known as ‘common-pool resources’, distinguishing them from pure public goods (which anyone can use at any time) and private goods. Although most experts are agreed data does not easily fit the definition of a common-pool resource (e.g. Ruhaak, 2020: para.8) Ostrom’s principles are still applicable and can be adapted to ensure that, for instance, a commons has conflict resolution mechanisms, ensures that the integrity of data is high or the confidentiality of data subjects is protected (van Geuns and Brandusescu, 2020). Moreover, Ruhaak has suggested that while data probably falls under Ostrom’s ‘club good’ category, privacy – or the control over the appropriate flow of information – could be thought of as a common-pool resource because “privacy is rivalrous: if I share information about you, you no longer have a chance to decide how to share that information about yourself [and] even when I share information about myself, that information may be used to infer things about people like me” (2020: para.9).

According to van Geuns and Brandusescu (2020) data commons is the governance model with the most existing real world applications and “has been a seminal part of open internet discourse since the 90s”; for example we might think of free and open software initiatives or Creative Commons (Bass and Old, 2020: 13). UK think tanks such as the Common Wealth and the Institute for Public Policy Research have advocated for their adoption (Meadway, 2020; Common Wealth, 2020) and the EU-funded Decode project has focused on testing new ways of sharing and governing data democratically in Barcelona and Amsterdam and how this could unlock new data uses that better meet the needs of society (Bass and Old, 2020). Nesta distinguishes between four kinds of (overlapping) data commons: academic data commons where

institutions pool data for research; public-private data commons whereby cities and private sector companies enter into agreements to share data; collective action data commons such as the Decode project where data is used for activist or civic purposes; and private data commons that govern sensitive data relating to a local community or specific group interest (ibid).

Similar to data trusts, data commons models are designed to overcome the lack of bargaining power that individual data subjects are able to exercise in relation to how their data is used, while at the same time confronting the challenge that in order for data to be useful it needs to be aggregated and processed in large quantities. Data commons are therefore a mechanism for leveraging collective value from data (Bass and Old, 2020). Perhaps the most obvious weakness of data commons models, though, is their lack of legal footing compared with data trusts: as the Ada Lovelace Institute points out, “it is difficult to identify actual paradigms of data commons” and they currently have a weak legal position (2021: p.54). Further, management of a commons is typically informal, via agreed institutions and social norms. However, Ruhakk draws our attention to the compatibility of data commons and data trust models, suggesting that data trusts can strengthen data commons models and “should be seen as a legal relationship that allows for the protection of a data commons, rather than as a governance model that is distinct from a data commons” (2020: para.17).

Data Cooperatives

Data cooperatives share similarities with both data trusts and data commons models: as with data trusts, data cooperatives have legal standing while also enabling the democratic control that commons approaches offer because they are collectively owned and controlled by their members, and formed to collect and share data in the interests of their members (van Geuns and Brandusescu, 2020; Bass and Old, 2020). The distinction between data commons and data cooperatives is often blurred but the Ada Lovelace Institute offers some clarity, suggesting that the data cooperative model would imply “that data was brought to and withdrawn from the cooperative as members joined and left” whereas a data commons “implies a body of data whose growth or decline would be independent of the identity and number of stakeholders” (2021: 54).

While data trusts are often envisaged to protect data subjects from data harm and misuse by guaranteeing, for example, privacy rights (Manohar et al, 2020), data cooperatives tend to have a positive rather than a negative agenda, “to achieve some goal held commonly by members, rather than to avoid some outcome resisted by them” (Ada Lovelace, 2021: 49). Data cooperatives can thus be a useful tool that responds to the interests of the cooperative’s members, such as unionising in the context of the US gig economy, but they can also have aspirations to benefit wider society (Ada Lovelace, 2021). One example is the health data oriented Saluus Coop, which aims to legitimise citizens’ rights to control their own health records while facilitating data sharing to accelerate research innovation in healthcare (Dataeconomylab.com, 2021). In the UK, the non-profit Open Data Manchester worked with the energy services and advocacy cooperative Carbon Co-op in 2020 to explore whether a data cooperative would be a trustworthy way to help energy cooperatives in the UK share personal energy data and to help consumers to reduce their carbon footprint (Himmelsbach,

2021).

Research by the Ada Lovelace Institute also suggests that a cooperative approach is appealing “in situations where there is a desire to give members an equal stake in the organisation they establish and an equal say in its management” (2021: 48). This means that data cooperatives “may have to advance the interests of all members at once, and/or achieve consensus over whether an action is allowed” (Ada Lovelace, 2021: 14). Unlike data trusts, however, data cooperatives are not a model that need testing and piloting before widespread adoption because they are based on models that are already in existence.

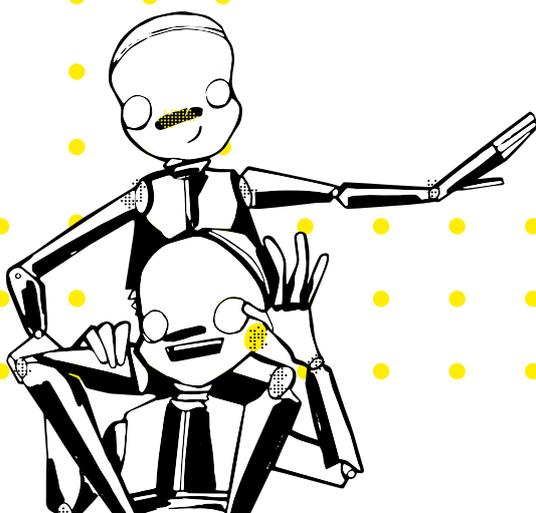
Data Governance in Wales

In the Welsh public sector, data governance discourse has gradually crept into Wales’ digital agenda, and is discussed primarily in reference to the need to modernise and digitally transform Welsh public services (e.g. see Brown, 2019). Since 2015 a number of reports have argued that Welsh public services are “failing to capture the potential of digital approaches to improve outcomes for the people who use public services” (Waters, 2018: 7). David Jones’ 2015 report *Why local government must go digital* found that digital leadership was lacking in the sector while digital services across the nation’s (then) 22 councils “are stuck in the mid-1990s”, failing to make use of cloud technology and over-relying on the private sector for software solutions (Hitchcock, 2016: paras. 1-6). Further, in 2017 a Government-commissioned report from the Society of IT Managers (Socitm) found that Local Authorities were not making the most of citizen data to design services and recommended that citizen data be used “to build and anticipate demand of services” in order to reduce costs, while also advocating for an open data approach to public services, but without reference to governance frameworks except for data protection guidelines (Socitm, 2017).

Subsequent reports have increasingly highlighted the need for standards and principles to accompany accelerated datafication in the public sector. For example, a 2018 report into local government use of data by the Auditor General for Wales found that regulatory frameworks like the GDPR and the Wales Accord on the Sharing of Personal Information (WASPI) are generally met with adequate compliance, but they are seen as off-putting and challenging by some officers, preventing data sharing between agencies (Auditor General for Wales, 2018). The report concluded that its findings “provide a persuasive case for sharing information in a balanced, reasonable and permissible way” (30). Later the same year, the Senedd member Lee Waters made a series of recommendations in his public sector digital transformation report, including “citizen centric digital policies and systems” and the introduction of digital service standards which would commit public bodies to user centred design through the adoption of a set of service standards and principles (Waters, 2018: 14). Waters recommended that these should promote interoperability, accessibility, openness and innovation and be based on the UK Government Service Standard and Scottish Digital First Service Standard (ibid: p.23). In addition, the 2019 Brown review explored how “Wales 4.0” can become a global leader in digital innovation and recommended establishing a Future Economy Commission, with responsibility for advising on the coordination, oversight and delivery of Wales 4.0 with the Future Generations Commissioner acting as one of its standing members (Brown, 2019: p.71). The report

also recommended a national digital strategy be implemented and the appointment of ministerial digital leads (ibid: pp.68-70).

Lastly, in 2020 the Welsh government established a new arms-length body, the Centre for Digital Public Services, to be responsible for direction, standards, guidance, training and hands-on practical help in relation to the design and delivery of digital public services (Centre for Digital Public Services, 2021). The Centre is working on several of Lee Waters' recommendations, principally user-centred design using technical standards and a set of ten digital service standards that reflect the principles of the Future Generations Act (ibid). For example, Standard Six, "Consider ethics, privacy and security throughout", asks public sector workers to use Doteveryone's Consequence Scanning Guide to "understand the potential impact of a product or service on people and society" (ibid). Moreover, in March 2021 Welsh Government published its first digital strategy, which sets out the digital vision for the Welsh economy and public services, including how data will be used (Welsh Government, 2021). Regarding the public sector there is a commitment to increasing and championing data linking, the use of data analytics, data science capability, automation and AI solutions in order to improve public services, facilitate good decision-making, reduce costs and reduce "the burden on the citizen" (ibid). No specific data governance model is highlighted but there is a commitment to "data ethics, transparency and trust" as well as technical and common data standards to "allow data to be seamlessly shared from one system to another" (ibid).



SUMMARY OF INTERVIEW FINDINGS

In this section we summarise our findings from interviews with 26 stakeholders, outlining key themes pertaining to our three strategic areas of research. For simplicity, we provide six headings that highlight the main findings from the data.

1. Digital technologies are tools for “future proofing” and “future readiness” in WFGA

On the whole interviewees viewed the role of digital technology within the WFGA as a tool with which to future proof public services and certify the future readiness of the Welsh public sector. For some interviewees the WFGA’s future orientation aligns well with digital technology because the latter is perceived to represent the future. The Act was viewed as helping to prepare Wales for an impending technological reality of automation while Wales’ digital strategy reinforces the WFGA because both are about making organisations transparent, sustainable and future ready. In practice being future ready meant improving broadband connectivity and making sure workforces have the necessary skills to work in the digital economy, as well as designing services that are open and transparent. Some interviewees also spoke about the pressure of needing to predict future trends, which stemmed from the joint future emphasis that both digital technology and the WFGA were seen to encapsulate. It was implied that this places public servants in a difficult position in terms of not knowing what the future holds, but that digital technologies can help public bodies with forecasting trends. In this respect it was suggested that data can especially help the public sector to fulfil its Wellbeing goals and assessments by enabling it to predict future trends before they happen, in turn delivering improved outcomes for the public that are in line with the WFGA.

The Act certainly fits into the Digital Strategy for Wales [and] basically that’s about how do we make sure that our organisations are sustainable and transparent and future ready. (Welsh Local Government Association interviewee)

However, a small minority of local government and national government interviewees did not see a direct link between the WFGA and data and AI, either syphoning off digital as a separate, unrelated phenomenon or suggesting digital policy is evolving in a silo. Some suggested the WFGA had not yet had any impact or bearing on the development of digital policy in Wales, and that digital transformation is developing without the influence of the WFGA. Instead, interviewees saw digital policy as being in synergy with the spirit of the WFGA given the joint emphasis on resilience, future preparation and emerging trends. On the one hand this overlap was seen as a fortunate coincidence but, on the other, there was also a suggestion that digital strategies need to be more tightly interwoven in the WFGA.

I don’t think people put the Wellbeing and Future Generations Act in the front of their minds when they’re looking at digital. This is the first time I’ve heard it in the same sentence. (Caerphilly Council interviewee)

I think the things we're doing on digital are very much about preparing us for the future and making sure that we are understanding emerging trends [...] I think it's entirely consistent with the Act, but it's not come about because of the Act. (Welsh Government interviewee)

2. Public procurement in line with the WFGA provides avenues for social value but this is not yet being widely applied to digital procurement

The most common way in which public bodies are engaging with the WFGA when it comes to public procurement is in terms of thinking about the wider social impact of procurement decisions. Interviewees described how public bodies are engaging with the WFGA to redefine the concept of value, and value for money, and shift this towards procurement outcomes that benefit the whole community. There were several overlapping interpretations of this more holistic approach, such as 'community benefits', 'sustainable procurement', 'progressive procurement' and 'social value', but overall it was said that the WFGA has helped to make clearer the link between procurement practices and wellbeing outcomes. In practice interviewees said this is producing a number of positive community benefits such as job opportunities for disadvantaged people, improving Housing Associations, enhancing cultural experiences and lowering the carbon footprint of local supply chains.

If you think about some of the policy direction of the Future Generations Act, it would be things like the extent to which sustainability and whole life product costs are factored into procurement decisions. (Monmouth Council interviewee)

Interviewees also suggested that communities, or service users, need to be more involved in procurement processes, describing communities as the missing link that are done to rather than with. However, there was a sense that this is starting to change due to the WFGA, especially in social care where patients are being involved in recruitment decisions of social care workers. In addition, some councils have given local residents the opportunity to be involved in procurement decisions through citizen panels in relation to housing upgrade projects. Having said that, although public engagement is being extended to procurement decision-making, it was also acknowledged that this has not yet been widely applied to digital procurement. In fact, public bodies are engaging with the WFGA in a slightly different way when it comes to the procurement of data enabled technologies and the focus seems to be less on social value and community benefits and more on skills and efficiency. For instance, interviewees spoke of the priority of giving procurement professionals better digital skills in order to be intelligent and informed customers of digital services and improve digital innovation. Here concerns about public bodies being beholden to large and unsustainable software suppliers were in tension with the concern that Wales is not currently making sufficient use of the digital marketplace. It also emerged that for digital services there is a separate framework for holding procurement decisions accountable called the Digital Outcomes and Services framework. Yet how this relates to the WFGA is less clear.

What is value for money and what is social value? The one might override the other, in my view, because they're one and the same thing. (Caerphilly Council interviewee)

The social side people struggle with. They don't really get what social benefit is and I think the Act has really helped to advance our understanding of that, in terms of its links with wellbeing, so the link of health. So if we're improving economic benefits, what does that mean to the health of the local citizens? And I do believe that the Act has really been critical in that link. (Procurement academic interviewee)

Furthermore, several interviewees spoke of the challenge of a 'trade-off' or conflict between value for money and the more socially or community oriented understandings of value that the WFGA is seen to promote. It was suggested that more socially responsible procurement from local suppliers would necessarily entail higher costs, meaning that public bodies will need to buy less of a given product or take a 'lifecycle approach' to procurement. However, some questioned the idea of a 'trade-off', attributing this to a lack of understanding regarding what constitutes social value or to institutional barriers that make it harder for progressive procurement 'champions' to implement their thinking in practice.

Sometimes those champions, that sometimes we describe as frustrated, are trying to do something really innovative, but the directors of finance are saying no because the short-term cost is too great. (Commissioner's Office interviewee)

3. The Involvement Way of Working is advancing diversity and inclusion, but is often translated into user centred design in digital contexts

Several interviewees spoke about using the Involvement Way of Working to make services more accessible to everyone, manifesting in a range of interventions to strengthen diversity and inclusion such as using Welsh language in training sessions and materials; strengthening the representation of under represented groups through work with homeless charities and drug and alcohol charities; and creating British Sign Language videos for information about local services. It was also emphasised that this Way of Working helps to encourage partnership working and more collaborations between public bodies, while also encouraging public servants to engage more with marginalised communities in order to understand, rather than assume, what their needs are.

On this thing about involvement, there's a really strong drive towards user centred design and digital services that is allowing the users of digital services to feed back in real time what it is that they want from that digital service, and then configuring the user experience around those individuals to provide better services. (Welsh Government, Health and Social Services interviewee)

In digital contexts, though, the Involvement Way of Working was often interpreted as applying user centred design to the digitisation of public services, prioritising the user journey or experience of a digital interface and accessibility. Here involvement in datafied services was defined in terms of citizens having a say in how to design and improve the accessibility of online services. Citizens are also being involved in user research that seeks to understand their perspectives in order to better design digital services suited to their needs, particularly finding out what an end user wants from

We're starting to engage with community groups and end users, so that we're understanding what the end user wants from a website [...] We need to understand what they expect from it and are they happy to have it with AI, with robotics built in? **(Caerphilly Council interviewee)**

a website. A perceived benefit of this is that users provide feedback in real time in order to improve public service delivery. However, there is a lack of engagement with citizens about the broader questions about what digital technologies, particularly data-driven innovation, should be used for, how they should work and whether such technologies are appropriate for addressing community needs.

When you look at consultations of the past where you had a 300 page report and a questionnaire that was like, what do you think about it, do you agree with this? Obviously impossible for anybody to engage with. Whereas I do think the Act has helped public bodies to realise that there are other ways. **(Commissioner's Office interviewee)**

4. Understandings of A More Equal Wales in relation to digital technology are mediated by a digital inclusion agenda

The way in which interviewees articulated understandings of social inequality and the Wellbeing Goal of A More Equal Wales in relation to data and digital technology was by locating this relationship in digital inclusion policy debates. There were many concerns about groups already facing socioeconomic disadvantage being further disadvantaged by digital exclusion caused by public sector digital transformation. In

It's about getting policy makers to think about digital inclusion in the same way that they have to think about equality and other things at the start. **(Welsh Government interviewee)**

this sense digital healthcare was seen, for example, as one means of reducing health inequalities if deployed for this purpose from the outset and that digital inclusion is a social determinant of health. In terms of other solutions to inequality, policies that strengthen digital access were seen as aligning well with the WFGA, as well as working with disadvantaged communities to give them the skills to use digital services and implementing device loan schemes for a range of communities such as elderly people in care homes. Interviewees also cited the cost and availability of broadband for citizens as a barrier to equality within local communities, requiring improved access to broadband.

People living in more socially disadvantaged communities are less likely to have digital access and they're less likely to be digitally competent [...] and that will lead to diverging healthcare outcomes and we'll have to find ways to compensate for that, under the general banner of digital inclusion and connectivity but also probably more direct intervention. **(Welsh Government interviewee)**

At the same time, there was also recognition from some that a digital by default approach could be problematic and potentially further exclude particular groups. Others saw a possible tension or misalignment between the policy objective of digital transformation and the Wellbeing Goal of A More Equal Wales. For example, in the

context of data sharing in health, it can lead to reluctance amongst some communities to sign up to a GP at a crucial time, such as for the success of the Covid-19 vaccine roll out. To a lesser extent, some concerns were expressed around inequalities resulting from biases in automated decision-making, especially the concern that developers could subconsciously code their own biases into algorithmic systems.

You shouldn't use the fact that people experience data poverty or we've got patchy broadband and wifi connectivity across Wales, shouldn't use that as an excuse, but it isn't a level playing field and if it goes on unchecked, you're only going to deepen the divide and increase inequality. (Commissioner's Office interviewee)

5. Data collection and sharing require more public dialogue and citizen involvement

We need to think about how we want to combine our data for the future, for the better of our public, but actually how do we communicate that to our public now to say, do you give us permission to use your data? And if you really don't want us to use your data, how do you opt out, because I don't think we have that opt out piece right. (Powys Council interviewee)

Although interviewees were not familiar with alternative data governance arrangements like data trusts and data cooperatives, we found that several interviewees felt that data collection and data sharing require at least more public dialogue and awareness, and sometimes direct citizen involvement. There was, however, a consensus that it is currently unclear what such a campaign could look like in practice and a spectrum of potential public involvement initiatives emerged.

We need to understand what we should be collecting and what we shouldn't be collecting, have a common architecture to be able to collect that, to really have the hard discussions about what data we can share and what our risk appetite is on that. (Commissioner's Office Interviewee)

This included democratising data collection processes by opening them up to citizen input, possibly through workshops, as well as more limited forms of engagement such as talking to the public to explain data sharing and listen to any concerns they have. There was also a suggestion that citizens need to be able to trust public bodies with their data and that Local Authorities may need to improve their data sharing agreements with the public, especially in terms of including opt-out provisions for citizens. However for some interviewees public awareness or consultation was viewed as important primarily for obtaining the legitimacy and acceptance of datafication projects and less as a means of empowering or involving citizens in decision making processes about data. In this regard engagement around data was about obtaining permission from the public or earning a mandate for data collection and sharing practices. In some cases there was a nervousness towards public involvement in data governance debates because of the potential to worry people unnecessarily.

We need to build up the narrative around [data use] and how that can happen and how it happens safely, and if data trusts are part of that, we need to have a conversation about it. (Welsh Government interviewee)

There needs to be a way for people to influence that process of what data is being collected and about people [...] to be part of a bigger discussion and workshop that out with people and think about what data are we collecting, who does that impact?. (Commissioner's Office interviewee)

6. From consultation to co-production: distinguishing between token and meaningful public engagement

Interviewees drew distinctions between tokenistic, light-touch models of public engagement and fuller, substantive models. In the former category public consultations were sometimes seen as limited for being lengthy, unappealing processes. This was contrasted with more innovative examples of engagement that are beginning to emerge under the WFGA, such as citizen juries and community asset transfer initiatives like Project Skyline. A spectrum therefore emerged with consultation and co-production representing opposite ends. Some interviewees described consultations as conventional and tokenistic, while others highlighted the negative perception of consultation processes among particular communities, such as ethnic minorities who have participated in multiple consultations but have felt little resulting change in their lives. In this sense, it was suggested that an important litmus test for engagement initiatives is that citizens' lives change as a result of engaging, no matter how small that change might seem, while also needing to go beyond offering citizens choices between predetermined options.

The challenge for us now is understanding the upcoming issues well enough that we can invest time in effective ways of engaging and involving people, and then making sure that that's done early enough that we can use it to shape the policy direction of the organisation. But we're nowhere near there yet. (Monmouth Council interviewee)

In contrast, mini public and co-production models of public engagement were seen as offering meaningful involvement in line with the WFGA, especially among our third sector interviewees, and provide a means for public sector decision-making to be informed by lived experiences. Mini public methods like citizen juries and citizen panels were viewed as especially valuable by some because of the perceived potential to provide everyone, if willing, the equal opportunity to take part in discussions that they might traditionally have been excluded from. The recent Race Equality Action Plan was highlighted as an example of co-production good practice, and some interviewees thought that co-production should be the standard participation model in the Welsh public sector. However, whilst co-production was seen as meaningful

[With] co-production, a lot of the challenges around digital inclusion are poor design. [...] So having the person's voice in not just designing the technology but designing the services that are using those technologies is really important. Too often people roll out technologies and then try and tell people how to use them, rather than designing them from the bottom up with people. (Digital Inclusion Alliance interviewee)

participation and necessary for communities to have real influence, there was also widespread acknowledgement of the time and resource challenges it presents for

Probably, on a ladder of participation, we're still too far down. There is still a lot of broadcasting of what we're doing and there is still a lot of consultation on predetermined options. (Monmouth Council interviewee)

local authorities, although this was also said to be necessary for communities to have real influence. A further challenge was “engagement fatigue” among some communities because they are being asked to give their experiences but there is a need to balance this in terms of what they get in return. A final challenge with co-production in practice is precipitating a cultural change within public bodies, as it was felt that changing public sector workers’ understanding and readiness requires a significant transformation.

We found involvement is still a challenge for lots of public bodies, for many reasons really. Finance being one of them and having resources, capacity, and having the right sort of skills in-house as well. (Commissioner's Office interviewee)



DISCUSSION

Our findings suggest several areas that may address data justice concerns in the context of the WFGA. Firstly, there is scope to develop procurement processes of digital services in line with the WFGA, that places greater onus on the supplier to uphold standards of accountability, inclusion and diversity, but also empower public sector professionals to be able to negotiate this. One provision for such empowerment could be to explore enforceable contract conditions for the procurement of digital technologies, which, if legally binding, would give professionals more leverage to make demands, helping to embed WFGA values into contracts and facilitate fairer governance of technologies. In the research, it was suggested that the forthcoming Procurement Centre for Excellence could be responsible for this. Secondly, though our findings show that there is a lack of local public engagement and there are concerns with the representativeness of data and potential for bias in AI, our research also suggests potential for the WFGA to target engagement with affected groups at a local level. However, it was highlighted that this will need to be backed up with appropriate resources that allow citizens to voice any concerns and be informed about how their data will be used. Thirdly, our findings suggest a growing emphasis on co-production as a sustainable engagement model that produces better long-term outcomes for digital public services in line with the WFGA. In particular, it was suggested that co-production can serve as a way to transfer meaningful decision-making influence to the communities most affected by digitisation, but it is time-consuming, resource-heavy and can be difficult for the public sector to implement appropriately. Expanding co-production as a possible standard for the Involvement Way of Working therefore represents a challenge for the Welsh public sector.

Although the WFGA provides a strong framework for sustainability and social justice, our findings also highlight several shortfalls and gaps that will need addressing. In part this is due to a digital policy that is currently developing along a separate trajectory that is at times in synergy with the spirit of the WFGA but at other times contradictory and counterproductive in terms of addressing data justice concerns. For example, our findings show a limited engagement with data governance and stewardship arrangements, especially in terms of public engagement and citizen input to deliberate or question uses of data rather than merely to legitimise them. That being said, our research also found an appetite for the expansion of democratic data governance and stewardship through experimentation with models explored elsewhere (e.g. from the Ada Lovelace Institute). In particular, there are lessons that can be learnt from experimentation in participatory budgeting, emphasised in the WFGA, that can be applied to more participatory data governance models. In addition, our findings suggest the need to bridge current gaps between WFGA, data sharing guidance and data protection legislation, especially in relation to how data is collected and used, rather than how services are designed. In terms of bringing these data policies more in line with the WFGA, there may be some scope for user-centred design to involve citizens more comprehensively, including in problem definitions and optimization goals, that also avoids neutralising difference by treating citizens

as one homogenous group of end-users. We found that the current emphasis on user-centred design engages the public and seeks their experiences but understands Equality, Diversity and Inclusion discourse primarily as access to services. This points to the need for a broader understanding of what the needs of communities, not individual service users, are in relation to public services that goes beyond limited discussions of convenience and accessibility and considers questions of equality, diversity and inclusion in the context of the collective lived experiences of those communities and how they may be impacted by the turn to data-driven innovation.

As such, the Future Generations (Wales) Act provides a potential avenue for both advancing data justice as well as being a target for ensuring greater civic participation in relation to data-driven innovation in the public sector. We experienced great engagement with the project from policy makers and professionals in Welsh Government and local authorities both within and beyond the Future Generations Commissioner's Office. Our project illustrated that this is a period of experimentation with data-driven innovation as well as public engagement and governance that could potentially facilitate radical intervention. However, this potential for action requires general empowerment of the public sector vis-à-vis industry and whilst there may be a will to advance data justice, there are historical and structural barriers in place. In particular, the overriding incentive structure strongly favours the implementation of data-driven innovation for perceived efficiency and financial gain, at times creating friction with the Wellbeing Goals and leading to the active marginalisation of visions pertaining to community benefit and social value in the delivery of digital public services. More generally, our research indicates a discrepancy between the vision of the Future Generations (Wales) Act and how it is being implemented in practice, not just in the area of digital services but in terms of procurement and public engagement more broadly.

Advancing real change in how data-driven technologies are understood, pursued, designed, implemented and used in the public sector therefore requires structural and institutional reform that goes beyond the scope of this project. In the immediate, our research points to a need to explore how the WFGA is implemented in public sector decision-making, including with regards to the provision of digital services, and address the current misalignment between different policy goals. Whilst there is a commitment to social value, civic participation and community-oriented governance in the Welsh public sector, how this is pursued and assessed in relation to other priorities remains a key question and is significant for how the WFGA can actively serve to change practices. This requires research into the role of incentive structures and broader policy agendas (e.g. austerity) in the implementation of the WFGA, particularly in relation to digital services.

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