doteveryone

Buying better technology in government

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Table of contents

Executive Summary **2**
Recommendations 3

Introduction **3**
A lack of responsible technology 4

Considering the consequences of technology **6**
Inadequate business cases 6
An understanding gap 7
Undervalued and misunderstood data 7
Anticipating the impacts 8

Incentivising responsible innovation **10**
Does size matter? 10
Valuing responsible technology 11
Social Value in procurement 12
How could social value be defined in a responsible technology context? 13
Transparency in automated decision making 14
Valuing and controlling data 14
Exclusion of services 14

Measuring the impact of technologies **15**
Enabling learning 15
Opening up the process 15
Supplier quality 16
Evaluating social impacts 17

Conclusion **18**

Acknowledgements **19**

Executive Summary

The delivery of government services is changing. Technology is transforming the services on offer and how they are delivered. In an increasingly technology mediated world, this is only set to continue and will accelerate as the UK Government seeks technological solutions to the coronavirus pandemic.

The technology the Government uses should be responsible - it must serve the public interest and uphold, not undermine, a fair, inclusive and sustainable democratic society. It should meet the needs of the furthest first - and in doing so, ensure that it serves everyone.

Although the procurement of technology, and digitisation of public services, brings many potential benefits, too often its potential negative consequences are overlooked, whether it is not adhering to the rule of law or citizens' data being sold off without consent or at sub-market rates.

The process for buying technology does not currently promote responsible technology. Through speaking to procurement experts we have outlined how the government can buy responsible technology if it is considered, incentivised and understood throughout the process.

By the UK Government leading the way in procuring responsible technology, it will ensure that public services are inclusive and beneficial to everyone. It will also serve to set the standard for the wider technology sector to follow, as well as creating a market for responsible products and services.

This report sets out our practical recommendations, based on insight from experts working across the full length of the procurement process, for how the UK Government can ensure the procurement of responsible technology.

Recommendations

- **We recommend the Government Digital Service (GDS) develops its own version of Consequence Scanning to be used in all government technology procurement.**

- **We recommend the Cabinet Office and the Department for Digital, Culture, Media and Sport sets a minimum weighting for evaluating 'responsible technology' in all technology procurements.**

- **We recommend the Department for Digital, Culture, Media and Sport undertakes and publishes impact evaluations on government procured technology.**

Introduction

The UK Government has advanced the use of technology in delivering public services at an astonishing rate. Whether it be services on welfare, policing or visa applications, the Government is being transformed in the quest to do things quicker and more cheaply. Currently one in three councils use automated decision making software[1], with the Government spending over £2bn on digital technology last year.[2]

Procurement is the process that enables the government to buy technology. With the complexity and innovation needed to develop technology, the government is reliant on external tech suppliers. But this reliance should not mean subservience. Improvements to the government's procurement of technology have focused on being agile and value for money. These are of course important, but considerations of responsibility should not be ignored.

When done right procurement can enable the Government to use technology to the benefit of everyone. But when done badly it can be ill-conceived and open up government services to a range of undesirable and long lasting consequences.

The current COVID-19 pandemic has seen the Government procure solutions quickly in the hope of saving lives. From a technology perspective, this has led to the Government forming partnerships with some of the most powerful technology companies to develop a contract tracing app[3] and collect and store an unprecedented amount of data on the public.[4] And while there is optimism about this approach,[5] in the haste to find solutions there are also increasing concerns on how these solutions were procured. There is a lack of transparency around these partnerships - the contracts did not go to a competitive tender, as prescribed for most procurements. And it's unclear how the data will be used and controlled. There's a danger these types of partnerships that bypass the typical governance, transparency and accountability could become normalised even beyond the immediate pandemic crisis period.

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[1] Marsh, S. (2019) 'One in three councils using algorithms to make welfare decisions.' *The Guardian.* 15 October 2019. Available at: https://www.theguardian.com/society/2019/oct/15/councils-using-algorithms-make-welfare-decisions-benefits

[2] Crown Commercial Service, (2020) *Digital Marketplace Sales in 2019/20.* Available at: https://app.powerbi.com/view?r=eyJrIjoiNTEyMTZhZDAtZGNiNi00OWQxLWI5ODYtMjg1ZWNlMmNkODVhIiwidCI6IjlmOGMwZDc5LTNlODctNGNkMy05Nzk5LWMzNDQzMTQ2ZWE1ZSIsImMiOjh9

[3] Technology in the NHS Blog (2020) *Digital contact tracing: protecting the NHS and saving lives.* Available at: https://healthtech.blog.gov.uk/2020/04/24/digital-contact-tracing-protecting-the-nhs-and-saving-lives/

[4] Technology in the NHS Blog (2020) *The power of data in a pandemic.* Available at: https://healthtech.blog.gov.uk/2020/03/28/the-power-of-data-in-a-pandemic/

[5] Tony Blair Institute for Global Change (2020) *A Price Worth Paying: Tech, Privacy and the Fight Against Covid-19.* Available at:

A lack of responsible technology

At Doteveryone we want to see a world where responsible technology is the new normal, where technology supports a fair, inclusive and sustainable democratic society. Currently the technology procured by the Government often does not meet this criteria. From a rule of law perspective, "there is a very real possibility that the current use of governmental automated decision-making is breaching the existing equality law framework in the UK."[6] Data based decisions are prone to bias and inaccuracy,[7] seen for example in the Metropolitan Police's use of automated facial recognition software that wrongly identified over 98% of matches.[8] However the true scale and impact on society from automated decision making is often hidden, due to the lack of transparency on its use and effectiveness.

The procurement process is also giving private suppliers access to Government data. In 2015, the Royal Free NHS Foundation Trust partnered with DeepMind Health giving the company access to 1.6 million personal identifiable records, but received no monetary gain in return.[9] This not only created privacy issues, as patients' consent was not given, but also meant the suppliers gained unique access to expensive and highly valuable Government data at sub-market rates. Such deals are often hidden from public scrutiny. In last year's NHS partnership with Amazon, which made health information available through Alexa,[10] the published contract was so readacted that it is unreadable.[11]

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https://institute.global/policy/price-worth-paying-tech-privacy-and-fight-against-covid-19

[6] Allen, R., Masters, D., (2019) *In the matter of automated data processing in government decision making.* Available at: https://482pe539799u3ynseg2hl1r3-wpengine.netdna-ssl.com/wp-content/uploads/2019/10/Open-opinion-pdf-version-1.pdf

[7] Centre for Data Ethics and Innovation (2019) *Landscape Summary: Bias in Algorithmic Decision-Making.* Available at: (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819055/Landscape_Summary_-_Bias_in_Algorithmic_Decision-Making.pdf

[8] Big Brother Watch (2018) *Face Off.* Available at: https://bigbrotherwatch.org.uk/wp-content/uploads/2018/05/Face-Off-final-digital-1.pdf

[9] Housing of Commons Science and Technology Committee (2018) *Algorithms in decision-making.* Available at: https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/351/35105.htm#_idTextAnchor036

[10] Department of Health and Social Care (2019) *NHS health information available through Amazon's Alexa.* Available at:

https://www.gov.uk/government/news/nhs-health-information-available-through-amazon-s-alexa

Transforming services to be 'digital by default' can also exclude people who are not digitally literate. This tends to be groups of people who are reliant on government services, such as disabled, elderly or unemployed people, which can mean such transformations exacerbate and

prolong existing inequalities.[12] This is also compounding by a reduction of spending on face-to-face services over the last decade, which has led to a reduction in options."[13]

> "the digitisation of welfare systems has been accompanied by deep reductions in the overall welfare budget, a narrowing of the beneficiary pool, the elimination of some services, the introduction of demanding and intrusive forms of conditionality, the pursuit of behavioural modification goals, the imposition of stronger sanctions regimes, and a complete reversal of the traditional notion that the state should be accountable to the individual."[14] - **Philip Alston, United Nations Special Rapporteur on extreme poverty and human rights**

Doteveryone's work focuses on designing for the furthest first - considering how a technology will affect those with the greatest needs and in doing so ensuring that it serves everyone.

And so this report sets out for the UK Government, practical recommendations for how we change the procurement process to buy more responsible technology, built on a focus upon:

1. Considering the consequences of technology
2. Incentivising responsible innovation
3. Measuring the impact of technology

The recommendations are based on conversations with experts within the procurement sector. We spoke to government officials, technology suppliers and procurement researchers.

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[11] Open Data Institute (2019) *Jeni Tennison on Amazon's access to the NHS website – how has it come to this?* Available at: https://theodi.org/article/jeni-tennison-on-amazons-access-to-the-nhs-website-how-has-it-come-to-this/

[12] D, White., (2016) *Digital Participation and Social Justice in Scotland.* Carnegie UK Trust. Available at: https://d1ssu070pg2v9i.cloudfront.net/pex/carnegie_uk_trust/2016/09/v3-2697-CUKT-Digital-Participation-summary.pdf

[13] Joseph Rowntree Foundation (2015) *The cost of the cuts.* Available at: https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/Summary-Final.pdf

[14] P, Alston., (2019) *Seventy-fourth session* United Nations Human Rights Office of the High Commissioner. Available at: https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25156&LangID=E

Considering the consequences of technology

Doteveryone's research has seen how new technology can create a host of intended and unintended consequences.[15] It's important to consider these early in the development process, when there is still the opportunity to mitigate potential negative impacts on people and society. If the Government is to procure more responsible technology, it must consider the consequences from the very start of the procurement process.

Inadequate business cases

The decision to buy a technology in the first place is arguably the most crucial part of the procurement lifecycle. Business cases within government are drawn up to justify this decision. A key driver for many tech procurement business cases is the potential to reduce costs, as The Bureau of Investigative Journalism points out: "the development of algorithmic and data-driven systems is frequently predicated on austerity - doing more with less."[16]

But the Government's modelled potential savings in time, money and resources can often be inflated, suffer from optimism bias,[17] and are not used consistently in approving business cases.[18] We also found that technology business cases can be distorted by the hype that technology could entail.

> "The public sector doesn't even know what it's asking for. For example, there's an enthusiasm around things like Cloud - it's just another buzzword to them. I've

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[15] Brown, S., (2018) *A model to help tech companies make responsible technology a reality.* London: Doteveryone. Available at: https://medium.com/doteveryone/a-model-to-help-tech-companies-make-responsible-technology-a-reality-837c50713c65

[16] Black, C., Safak, C.,(2019) *Government Data Systems: The Bureau Investigates.* The Bureau of Investigative Journalism. Available at: https://assets.documentcloud.org/documents/5993565/2019-05-08-TBIJ-Government-Data-Systems-Published.pdf

[17] National Audit Office (2018) *Improving government's planning and spending framework.* Available at: https://www.nao.org.uk/wp-content/uploads/2018/11/Improving-government's-planning-and-spending-framework.pdf

[18] Institute for Government (2017) *How to value infrastructure Improving Cost Benefit Analysis.* https://www.instituteforgovernment.org.uk/sites/default/files/publications/IfG%20Report%20CBA%20infrastructure%20web%20final1.pdf

> heard individuals on the ground claim that everything should be on the Cloud - but they don't have a reason for this or properly understand why" - **Justin Day, tech supplier**

> "A lot of times, that comes down to people coming with preconceived ideas about something." - **Government procurement official**

These decisions often involve vast amounts of money but the implications are not just financial. They have societal impacts such as excluding certain groups of people from services, biased decision making, or a lack of privacy. These implications are often not given due weight, particularly in a technology context, when many cannot be quantified in monetary terms.

An understanding gap

A deeper consideration of these impacts is needed before such technologies are deployed. But the public sector lacks the capability and capacity to fully understand such impacts.[19] This is not necessarily a fault of the staff employed, but the value placed on these skills within government.

> "there's a lack of capability, and this isn't being derogatory, there's a lack of capability, internally within those departments" - **Peter Ford, Pega**

This has created an understanding asymmetry between the public and private sector. Poorly paid and poorly trained public servants are engaging with the best talent the private sector can buy; people steeped in specialist knowledge accrued from creating complex and innovative technology.

> "We definitely have a problem within the Civil Service around that kind of conceptual level of understanding around tech" - **Technology supplier**

> "People either have no comprehension whatsoever of what AI is beyond the term, or you have people right at the other end that think that AI can do such incredible things." - **Technology supplier**

Undervalued and misunderstood data

In particular, a lack of understanding leads to the long-term potential value of data being under-appreciated. Many public bodies struggle to look past the 'cheap' prices offered by vendors in exchange for access to unique and extensive public datasets. One interviewee described this as “a mass outsourcing of digital public assets” to the private sector.

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[19] Housing of Commons Science and Technology Committee (2019) *Digital Government Eighteen Report of Session 2017-19.* Available at: https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/1455/1455.pdf

There are also concerns that public sector bodies are failing to grasp the implications - particularly around privacy and control - of sharing public data. There are instances of personal data being sold off to private companies without the public’s knowledge or consent.[20]

These concerns are exacerbated by a lack of transparency around data flows in public-private partnerships, which makes it near impossible to scrutinise such deals, such is the case with the partnership with Amazon and DHSC last year.[21]

Anticipating the impacts

In theory, guidance and principles on how to procure responsibly could help the public sector.

There are UK Frameworks[22] and Codes of Practice[23] that provide guidance on the types of technology that should be used in government. But these don’t relate to how to navigate the procurement process. The Office for AI’s draft Guidelines for AI procurement[24] are a useful start, but they currently lack the evaluation measures, outcomes and case study examples to make them useful and relevant to procurement teams.

Moreover, as the Committee on Standards in Public Life note: "multiple sets of ethical principles are confusing and the application of each is unclear. Public sector guidance is not yet widely used and public officials with no AI expertise may find it difficult to understand and comply with."[25]

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[20] Information Commissioner’s Office (2017) *Royal Free - Google DeepMind trial failed to comply with data protection law.* Available at: https://ico.org.uk/about-the-ico/news-and-events/news-and-blogs/2017/07/royal-free-google-deepmind-trial-failed-to-comply-with-data-protection-law/

[21] Open Data Institute (2019) *Jeni Tennison on Amazon’s access to the NHS website – how has it come to this?* Available at: https://theodi.org/article/jeni-tennison-on-amazons-access-to-the-nhs-website-how-has-it-come-to-this/

[22] The Department of Digital, Culture, Media & Sport (2018) *Data Ethics Framework.* Available at: https://www.gov.uk/government/publications/data-ethics-framework/data-ethics-framework

[23] Government Digital Service, (2019) *Technology Code of Practice.* Available at: https://www.gov.uk/government/publications/technology-code-of-practice/technology-code-of-practice

[24] Office for Artificial Intelligence (2019) *Draft Guidelines for AI Procurement.* Available at: https://www.gov.uk/government/publications/draft-guidelines-for-ai-procurement/draft-guidelines-for-ai-procurement

[25] The Committee on Standards in Public Life (2020) *Artificial Intelligence and Public Standards.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868284/Web_Version_AI_and_Public_Standards.PDF

Impact assessments, such as Data Protection Impact Assessments (DPIAs), have the potential to consider the full range of impacts when deploying a technology. A considered assessment can allow due consideration of how technologies would impact a range of stakeholders and allow for appropriate mitigations. As noted by The Committee on Standards in Public Life: “there's a need for ethical/quality standards that needs to be established at the start (and throughout) the procurement lifecycle. Impact Assessments can play a role.”[26] However we were told the quality of assessments and their use across the duration of the procurement process is very variable. This is again linked to the ability and time available for government officials to conduct these assessments, as noted by one commentator:

> “In theory, they [Impact Assessments] should be quite useful here. But in practice, I'm not sure that they are. And I wonder if we need to interrogate what the purpose of them is and where they go and who does what with them.” - **Crofton Black, The Bureau of Investigative Journalism**

Public officials need accessible and quick tools to help them consider potential issues and how to mitigate them.

Doteveryone has developed Consequence Scanning, a practice that helps organisations anticipate and mitigate the potential consequences of their product or service on people, communities and the planet.[27]

We have used Consequence Scanning with a variety of businesses as well as some government teams. It is a lightweight process that could be adapted for use in a government context and could be rolled out across all procurement decisions.

We recommend the Government Digital Service (GDS) builds on the Consequence Scanning resources to create a lightweight approach to considering the impacts of government technology procurement that can be used across all parts of the public sector.

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[26] The Committee on Standards in Public Life (2020) *Artificial Intelligence and Public Standards.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868284/Web_Version_AI_and_Public_Standards.PDF

[27] Doteveryone (2019) *Consequence Scanning.* Available at: *https://doteveryone.org.uk/wp-content/uploads/2019/04/Consequence-Scanning_Agile-Event-Manual_TechTransformed_Doteveryone.pdf*

Incentivising responsible innovation

The aim of procurement is to drive competition between suppliers so the buyer gets the best deal possible. Government should ensure that the best deal is also a responsible deal. Through the product specification, evaluation of bids, and Key Performance Indicators (KPIs), responsibility can be incentivised and rewarded.

Does size matter?

Supplying government technology can be a lucrative business. Suppliers have the potential to deliver services on a unique scale, which not only provides significant income, but also access to unique data and reputational benefits.

Current suppliers are skewed towards larger technology companies, accounting for 56% of expenditure.[28] This is partly due to the capabilities of larger firms, but also their perception as a less risky option.

> “Public sector bodies are more cognisant of supplier chain risks since [the collapse of the major outsourcing company] Carillion - they want to work with recognised names as a result” - **Miranda Evans, Tussell**

The importance of delivering reliable services is understandable. However many believe that because of “long-held incumbent relationships and contracts with technology giants, there is now an overdependence on their services and advice."[29] This has long-term implications, because incumbent suppliers will gain advantages, such as capabilities and control over data, which can effectively lock them into future contracts. They also in effect determine what kind of technology the Government gets and whether there is any consideration given to the impacts on people and society.

> "But it can also be one of those ones where I do think sometimes if you're trying to be fair and transparent about this. But, in actual fact, that company's got no

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[28] Crown Commercial Service, (2020) *Digital Marketplace Sales in 2019/20.* Available at: https://app.powerbi.com/view?r=eyJrIjoiNTEyMTZhZDAtZGNiNi00OWQxLWI5ODYtMjg1ZWNlMmNkODVhIiwidCI6IjlmOGMwZDc5LTNlODctNGNkMy05Nzk5LWMzNDQzMTQ2ZWE1ZSIsImMiOjh9

[29] T, Filer.,(2019) *Thinking about GovTech.* Bennett Institute: Cambridge. Available at: https://www.bennettinstitute.cam.ac.uk/media/uploads/files/Thinking_about_Govtech_Jan_2019_online.pdf

> chance of getting it because the other company has provided the service for so long that they're already embedded, almost, into the process." - **Government procurement official**

The Government has tried to attract and use Small and Medium Enterprises (SMEs),[30] with an underlying belief in the benefits of going beyond the "big company mindset."[31]

> "Getting more start-ups to solve public problems will make a real difference by allowing new technologies into the public sector to deliver better, cheaper and more easy-to-use public services"[32] - **Daniel Korski, Public**

However, while new entrants could disrupt the status quo and offer more innovative solutions, there are also downsides.

> "To disaggregate the contracts and the solutions, by going out to small and medium enterprises, is admirable in theory. But, I would question the capability, and this is from a skills, and experience perspective, of many enterprises to actually manage that themselves. I think that poses quite a risk. Now, the upside is that you get best of breed, you get innovation, you lower risk in terms of not having all your eggs in one basket. But then, you've got to glue all the pieces together, if you go out to multiple suppliers.' - Peter Ford, Pega

This fragmentation of suppliers can also make the lines of responsibility opaque with nobody taking overall accountability.

> "I think there's massive accountability gaps when you have multiple organisations working on the same service." **- Researcher**

And there currently seems little reason or evidence to suggest SMEs would develop more responsible technology relative to larger suppliers.

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[30] Department for Digital, Culture, Media and Sport (2019) *Small and Medium Enterprises Action Plan.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/773754/DCMS_SME_Action_Plan.pdf

[31] Raconteur (2018) *Why Government tech procurement isn't working.* Available at: https://www.raconteur.net/technology/government-tech-procurement

[32] Tech Crunch (2017) *Former No. 10 aide Daniel Korski launches venture to link startups with public services.* Available at: https://techcrunch.com/2017/04/03/former-no-10-aide-daniel-korski-launches-venture-to-link-startups-with-public-services/

Valuing responsible technology

Government technology could make fair and accountable decisions, equitably share the benefits from data and work for the furthest first. But this type of responsible technology will not be developed unless it is valued.

Currently there is little incentive to create responsible technology when supplying government technology services because it's not specified or incentived in the procurement process.

> "With the right KPIs in place, it should follow that contracts are designed to incentivise delivery of the things that matter"[33] - **The Outsourcing Playbook**

This could obviously change, but would need the Government to be bolder is specifying that they want more responsible technology.

> "They need to start showing their teeth" - **Justin Day, Cloud Gateway**

A Review by the Committee on Standards in Public Life found that, "private companies developing AI software often had the capability to make their products and services more explainable, but that they were rarely asked to do so by those procuring technology for the public sector. The Committee was told that requirements for technical transparency are not usually included in procurement tenders and contracts.[34]"

The idea of using the power of government procurement to promote good practice is not new, and has led to success around the world in areas such as timber, food, construction and clothing.[35] As our awareness, understanding and concerns about the impacts of technology have become more prominent,[36] there is now a greater need to focus on the procurement of responsible technology.

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[33] Government Commercial Function (2019) *The Outsourcing Playbook.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/816633/Outsourcing_Playbook.pdf

[34] The Committee on Standards in Public Life (2020) *Artificial Intelligence and Public Standards.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868284/Web_Version_AI_and_Public_Standards.PDF

[35] Department for Environment, Food and Rural Affairs (2006) *Procuring the Future.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69417/pb11710-procuring-the-future-060607.pdf

[36] Miller, C., Kitcher, H., Perera, K., Abiola, A., (2020) *People, Power and Technology: The 2020 Digital Attitudes Report.* London: Doteveryone. Available at: https://doteveryone.org.uk/report/peoplepowertech2020

By valuing and rewarding suppliers that are responsible, clear signals will be sent through the market. Rather than the Government limiting harm, technology companies would now be incentivised to out compete other suppliers by being more responsible.

This could help steer the power of innovation to more social beneficial outcomes. Whether that be automated decision-making that is fully explainable, technology that is designed for the furthest first, or privacy-by-design solutions, enabling the Government to be a bastion of responsible technology.

Given the scale of Government spending, a focus on procuring responsible technology should incentivise the wider market to supply to these standards and so lift the responsibility of technology across the sector.

> Public procurement is pretty much the best opportunity the Government has to demonstrate what a good British business looks like, and this purchasing power should not be under-estimated" - **Rose Lasko-Skinner, Demos**

Social Value in procurement

The Public Service (Social Value) Act 2012[37] requires the Government to *consider* social, economic and environmental outcomes when procuring goods and services.[38] In 2018 the Government announced that procurements should now *account* for, rather than just *consider*, social value.[39] The Government consulted on how it should account for social value last year and proposed a minimum 10% weighting for evaluating social value in the bids.[40]

Procurement teams in government currently determine how they account for social value. For each procurement they can choose what types of outcomes they favour and how much they should be weighted in the evaluation of bids. We heard how some councils accounted for social value by favouring smaller and local technology firms. However the broad sentiment was that procurement teams were not clear on how to account for social value within technology services.

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[37] *Public Services (Social Value) Act 2012.* Available at: http://www.legislation.gov.uk/ukpga/2012/3/enacted

[38] For all goods and services that comply with The Public Contracts Regulations 2015. Available at: http://www.legislation.gov.uk/uksi/2015/102/part/2/made

[39] Cabinet Office (2018) *Government announces major changes to rebuild trust after Carillion: 25 June 2018.* Available at: https://www.gov.uk/government/news/government-announces-major-changes-to-rebuild-trust-after-carillion-25-june-2018

[40] Cabinet Office (2019) *Social value in government procurement.* Available at: https://www.gov.uk/government/consultations/social-value-in-government-procurement

> “when people talk about social value I think the conversation is still very simplistic, and it’s still very much about is it a small company? Is that better social value? I don’t really know.” - **Miranda Evans, Tussell**

This was partly due to a lack of technology specific guidance, as well as broader concerns that social value is more of an afterthought, rather than a fundamental consideration within all procurements.[41]

We recommend the Cabinet Office and the Department for Digital, Culture, Media and Sport sets a minimum 10% weighting for evaluating ‘responsible technology’ in all technology procurements. This would mean amending the social value evaluation model proposed in last year’s consultation and including relevant responsible technology policy outcomes and metrics. This should be accompanied by clear guidance, and suggested key performance indicators.

How could social value be defined in a responsible technology context?

Last year’s consultation on the Government’s suggested evaluation model for social value is not a great fit for procuring technology.

Its prescribed areas on diverse supply chains; skills and employment; inclusion, mental health and wellbeing; environmental sustainability; and safe supply chains is focussed on the company’s supply chain and employment practices. This is less relevant for the significant amount of technology that is developed outside of the UK, and does not consider UK tax contributions, which would place UK firms at a disadvantage. Or the social implications that technology services can have on the public.

From our research we have identified three areas that could be specified within the social value criteria to make them applicable to a tech context:

1. Transparency in automated decision making

   Suppliers could be incentivised to make automated decision making systems accountable and transparent. This could be done by explaining how each decision is made or making decisions open to freedom of information (FOI) requests. Suppliers could also be incentivised to have their algorithms audited and analysed to understand any bias in the data and decision-making. ‘Human in the loop’ and public algorithm registers have also been suggested as solutions and could be incentivised.

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[41] Cabinet Office (2018) *Civil Society Strategy.* Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/732765/Civil_Society_Strategy_-_building_a_future_that_works_for_everyone.pdf

2. Valuing and controlling data

Technology suppliers are gaining unique access to Government data. A better valuation of public data would enable more cost effective procurement. And by stipulating a need for a fairer distribution of the profit gained from the data could lead to more novel and more equitable arrangements.

Suppliers could be incentivised to open up data to the Government, public and other suppliers to prevent contract lock ins.

3. Exclusion of services

Digital services can often exclude those who lack digital literacy and access to technology, and often leads to a reduction in face-to-face services. Incentivising the minimisation of impact on excluded groups using KPIs could lead to more inclusive solutions, that focus on the furthest first.

Measuring the impact of technologies

Procurement will not become more responsible overnight, but through a process of learning and improving. To enable this, projects need to be evaluated accordingly. Data needs to be collected about the potential impacts identified earlier in the process. This will inform the Government, and wider society, about how responsible the service is and regulate the performance of suppliers through incentives outlined in the contract.

Enabling learning

To improve the procurement process, there must first be a willingness to learn and improve the process from all involved.

> “there’s never proper appraisal of projects after the event and that’s simply because it’s politically inconvenient for that to happen.” - **Matt Ross, Global Government Forum**

Greater use of appraisals and scrutiny would inevitably discover areas that could have been done better or need improvement. This negative attention seems a particular worry in technology procurements, which have a history of being expensive or badly managed. However this fear is restricting the sector’s ability to learn from past mistakes.

> “ building a digital project is a process of testing and experimentation, and by definition some of these experiments are not going to work. Ideally you test, you work out what works and find out what doesn’t work, and then you do what works. But civil servants are expected - certainly by MPs, by the media, and by central spending-approval systems - to find out what will work without ever risking going down a blind alley. So they end up committing to a particular approach to solving a problem without having really understood the best way to address it - and, months or years later, the result is a failed project or a poor service.” - **Matt Ross, Global Government Forum**

> “I think we should definitely talk about what’s gone wrong, I think that’s important.” - **Tanya Filler, researcher**

> “You're far less likely to report failure than success...I think that generally comes down to the reluctance to admit a mistake.” - **Government procurement official**

Opening up the process

Transparency over public spending decisions is becoming the norm in most modern democracies. The UK Government has been one of the biggest proponents of this approach, but while open data on procurement is published, it is not clean, complete or usable.

> “to be honest, they [transparency data] are not that accessible. Unless you know what you're doing, unless you're able to do analysis with them, you just won't be able to use them in the way that a lot of the early open government data advocates thought that people would be able to do so.” - **Rosie Collington, Industry Research Network**

Many government authorities fail to keep and maintain records of the services they purchase, although they are legally obliged to do.[42]

Better data could demystify and open up the procurement process to new entrants and increase competition. Greater scrutiny could incentivise better decision-making within government.

> "A higher calibre of transparency data would allow small companies to assess what's going on in government and who's procuring what for how much and where and what sort of services and so forth. That seems to me to be something the government could very very easily do and it could also benefit citizens and democratic process and journalists and everybody else likewise. So I don't really see a downside there except that perhaps it would have the unfortunate consequence of making government operations more transparent.” - **Crofton Black, The Bureau of Investigative Journalism**

But there does not seem to be an appetite within the Government to address these problems.

> "I think Britain is far too complacent about its transparency data. I get the impression sometimes that we wander around the rest of the world telling them that we're like a great model that they all ought to look up to and emulate in terms of how to do transparency data. I mean, that's frankly ridiculous. I think we need to kind of fix up and get our own ... at least have a discussion about what we

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[42] Black, C., Safak, C.,(2019) *Government Data Systems: The Bureau Investigates*. The Bureau of Investigative Jounalism. Available at: https://assets.documentcloud.org/documents/5993565/2019-05-08-TBIJ-Government-Data-Systems-Published.pdf

> expect our transparency data to be able to do, because right now it doesn't really do very much" - **Crofton Black, The Bureau of Investigative Journalism**

This is vital given the vast amounts of public money spent procuring technology services. Without transparency over this process, this expenditure could be a waste of time and money.

> "Transparency - and therefore accountability - over the way in which public money is spent remains a very grey area in the UK. This is concerning, particularly at a time when the state is in the midst of a complex data-driven revolution predicated on saving money through major digital transformation programmes and legacy system overhauls." - **Government data systems, The Bureau of Investigative Journalism**

Supplier quality

While it is commonly agreed that better data is needed on the procurement process, most people focus up to the point where the contract is awarded. However arguably what matters more is the period after this. This is when technology companies deliver services that can directly affect the public.

In procurement there is always an uncertainty about the ability for a firm to deliver against specified requirements. Companies will talk about how they are best suited and contracts will include indicators on quality and delivery, but in the constantly evolving world of technology this can often not mean much or be hard to pin down.

Reputation can count for a lot. Built on past performance, buyers can understand how suppliers had previously performed to give an indication of how they might perform in the future and help remove this informational asymmetry. The ubiquitous five-star review is commonly found and used to guide the most mundane and everyday purchases. However on our most significant purchases we make as a country, such data is lacking.

Piloting within Government has shown that an open and transparent rating system can incentivise suppliers to improve their performance.[43] This could help reduce the asymmetry and avoid Government reverting to the same suppliers.

> “Literally, if we used data on the outcomes of contracts, we could work out pretty quickly what bad stuff looks like. And we could prevent waste. Now we spend £387 billion pounds a year with our suppliers. Now, some of our suppliers are

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[43] Civils Service Blog (2018) *Making public procurement better and fairer with supplier feedback.* Available at: https://civilservice.blog.gov.uk/2018/12/18/making-public-procurement-better-and-fairer-with-supplier-feedback

> okay. Some of their suppliers are pretty bad. But a lot of those suppliers are actually really good." - **Ian McGill, Spend Network**

A simple start to improving learning about procurement would be to compare what companies promise and what they actually deliver.

Evaluating social impacts

But the transformation of procuring technology to deliver public services warrants a more holistic set of questions: ‘Did the procurement deliver the outcomes originally anticipated?’ And ‘were there other unanticipated outcomes that occured?’

In the context of changes both to government and society, these evaluative questions are rarely asked or evidenced, but they are fundamental to assessing the true impact. This could help improve our understanding of the impact these changes have and enable us to learn and improve the process.

> “Literally, if we used data on the outcomes of contracts, we could work out pretty quickly what bad stuff looks like. And we could prevent waste.” - **Ian McGill, Spend Network**

The Government should go further in what it collects and shares with the public. The current data published is poor quality and hides the true performance of government procured technology. It also does not measure the full impact on society, which means this is not understood or scrutinised.

We should measure what matters, and in the context of government services, the impact on society should matter. The Government recently agreed with the House of Commons Science and Technology Committee’s recommendation to “set out metrics of success” and “publicly report against these metrics on an annual basis.”[44]

The selection of these metrics is critical. Too often these metrics can focus on what is obvious and easy to measure. Evaluations of government spending are often focused on value for money concerns, which are obviously important. However, the impact technology is having on society is often real but harder to measure. By not considering these factors the government will fail to learn and improve or build public trust in its procurement of technology.

We recommend the Department for Digital, Culture, Media and Sport undertakes and publishes impact evaluations on government procured technology.

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[44] https://publications.parliament.uk/pa/cm201719/cmselect/cmsctech/2673/2673.pdf

The impact evaluations should understand the full range of economic, social and environmental effects of the service. There should be an interim review done after a year, so that insights can be learnt and fed back into improving the procurement process, particularly the ex ante assessments (consequence scanning). Due to their cost, it may not be feasible to evaluate all procurement, if that is the case, projects should be chosen proportionally where there is the greatest potential social cost.

Conclusion

We have seen many examples of government technology that is not responsible. Technology that does not support a fair, inclusive and sustainable democratic society.

The procurement process has the necessary steps to buy goods and services that serve the public interest. But in a technology context this process is not working. Technology can be difficult to understand and the wider impacts can be less obvious. But this should not be a barrier to procuring technology. Instead it should fuel a need for these impacts to be considered and mitigated throughout the procurement process.

In this report we have shown how responsible technology needs to be considered, incentivised and understood throughout the procurement process. This is not a change to the current process, but a change towards valuing technology that better serves the public interest. The tools and processes are already available, but they need to be relevant to the impact technology can have in society.

Government technology has improved over time through initiatives like the Government Digital Service. But too little focus has been spent on improving the procuring process. Given the government’s dependency on private suppliers, this needs to change. The government needs to be proactive in the type of technology it wants in society. In a world where our lives will be increasingly mediated by technology, this has never been more urgent.

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