

Institution: University of Bradford		
Unit of Assessment: C17 Business and Management Studies		
Title of case study: Socio-Economic Impact of Linking Policy Design with ICT Enhanced Instruments to Shape Digital-led Transformation in Government.		
Period when the underpinning research was undertaken: March 2017- December 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Prof Vishanth Weerakkody	Dean, Faculty of Management, Law and Social Sciences	March 2017 - current
Paul Waller	Visiting Fellow	June 2017 - current
Prof Zahir Irani	Deputy Vice Chancellor, Academic, Innovation and Quality	December 2016 - current
Dr Amizan Omar	Assistant Professor	March 2018 – current
Period when the claimed impact occurred: March 2017 to December 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact (indicative maximum 100 words)		
<p>The University of Bradford's research into the systemic failure of Digital Government (DG) and Digital-led Transformation efforts in Public Administration (DTPA) has been used extensively by governments in the UK and Internationally. The impact of this research is far reaching and has led to seismic changes in policy direction and current line of thinking on DTPA projects and DG implementation. Underpinned by an alternative frame of reference for DTPA, the research, including written and oral evidence by Weerakkody to the 2018 parliamentary inquiry into Digital Government, has initiated the rethinking of approaches to several DTPA projects nationally and internationally, resulting in over GBP4,500,000 cost savings and improved outcomes for citizens.</p>		
2. Underpinning research (indicative maximum 500 words)		
<p>The research, conducted by Prof Vishanth Weerakkody (2017 – present), Paul Waller (2017 – present), Prof Zahir Irani (2016 – present) and Dr Amizan Omar (2019 – present) challenges existing approaches to DG, which are heavily influenced by new public management concepts and overlaying commercial models into public administration (PA) to realise outcomes of transformation such as efficiency, cost savings and transparency of service. It questions how a PA, which is part of an elected decision-making body for a community and whose role is to act on common answers to contested community issues through policy design, implementation, and administration - can be transformed using information and communication technology (ICT).</p> <p>The research has advanced the field of DG by postulating that government is not a 'service industry' and delineating the concept of a 'service' in a PA context (1). The research classifies interactions and transactions that take place between PA and citizens to provide a meaningful context for DG (2), provides evidence to explain the reasons for the failure of current approaches to DTPA and proposes an alternative frame of reference (1). The new frame of reference builds on closely aligning policy design with policy delivery instruments and how technology should be integrated within this context. In order to achieve transformation of PA processes through use of digital technologies, the research established that public administrations require a complete reversal of the current way of looking at DTPA (2). Instead of viewing transformation from the viewpoint of technology or the internet, PAs must start with the political process of policy design (1). In particular, they must look at how technology can change the range and characteristics of</p>		

policy instruments — the tools that governments choose to intervene in the economy, society, and environment to make change, such as taxes, benefits, licences, information campaigns and more tangible things like public services and infrastructure (2,3). In this way, the research proposes a Frame of Reference which fundamentally rethinks the terminology, concepts and objects that enabled the examination of DTPA and associated DG efforts in government (1).

The Frame of Reference refocuses the use of ICT for DTPA from a private sector service centric perspective to using ICT to transform the implementation and administration of policy instruments (1). To examine how transformation of this nature might be achieved, it is necessary to address the potential impact of ICT on the choice and implementation of instruments during policy design, or re-design (2). Drawing on the principles of public administration (1), our research provides the rationale for choosing or modifying instrument sets in favour of new, technology-enabled ones which focuses on transforming three key areas: Demand Management, Administrative Burden Reduction, and Availability of public services.

While the research opens questions of an academic nature, they address societal, economic and policy issues and have a major impact on practice. The first is how policy designers make a choice between ICT-enabled instruments to ensure the implementation of policy objectives and realisation of associated outcomes (6). The second is related and asks how the effectiveness of an implemented policy is measured to determine if it achieved its objectives (2, 3, 5). The third is about how ‘best’ or ‘good’ practice is shared and adopted (or adapted) (5) when as described earlier, instrument selection and implementation involves political choices that are highly sensitive to the political, cultural, social, economic, and environmental context within which they are made (4).

3. References to the research (indicative maximum of six references)

1. Omar, A., Weerakkody, V. and Daowd, A. (2020), Studying T-Government: A Review of the Existing Methodological Approaches and Future Outlook, *Government Information Quarterly*, 37(2) <https://doi.org/10.1016/j.giq.2020.101458>
2. Mahmood, M., Weerakkody, V. and Chen, W (2019), The role of information and communications technology in the transformation of government and citizen trust, *International Review of Administrative Sciences*, 77(3): 451–479. <https://doi.org/10.1177/0020852318816798>
3. Al-Muwil, A., Weerakkody, V., El-Haddadeh, R. and Dwivedi, Y.K. (2019), Balancing Digital-By-Default with Inclusion: A Study of the Factors Influencing E-Inclusion in the UK, *Information Systems Frontiers*, 21, 635–659. <https://doi.org/10.1007/s10796-019-09914-0>
4. Omar, A., Weerakkody, V. and Sivarajah, U. (2017), Digitally enabled service transformation in UK public sector: A case analysis of universal credit, *International Journal of Information Management*, 37(4), 350-356 <https://doi.org/10.1016/j.ijinfomgt.2017.04.001>
5. Osman I., Anouze A., Irani Z., Lee H., Medeni T., Weerakkody V. (2019), A cognitive analytics management framework for the transformation of electronic government services from users’ perspective to create sustainable shared values, *European Journal of Operational Research*, 278 (2):514-532 <https://doi.org/10.1016/j.ejor.2019.02.018>
6. Elnaghia, M., Alshawi, S.N., Kamal, M.M., Weerakkody, V. and Irani, Z. (2019), Exploring the role of a government authority in managing transformation in service re-engineering – Experiences from Dubai police, *Government Information Quarterly*, 36(2), 196-207 <https://doi.org/10.1016/j.giq.2018.11.011>

4. Details of the impact (indicative maximum 750 words)

Policy Impact

Our research has influenced policy by exposing the current flaws in a) methodologies applied in DTPA; b) how concepts and terminology are defined in a DG context, and c) how instruments used for delivering DTPA and DG are looked at (1). Raised awareness has placed policy makers

and practitioners, including UK Government Digital Services (GDS), in a better position to refocus and avoid the same mistakes to improve public sector project delivery and DTPA efforts (2). As outlined by the society for innovation, technology and modernisation (SOCITM), *“several advisors of SOCITM have referenced your work and used your research in our policy briefings to influence policy makers at various levels of the public sector”* (3). The Deputy Ambassador of State of Qatar in Washington DC states that our research has *“helped the foreign mission towards transition from traditional to digital diplomacy... Since 2019, we have undertaken a review and transformation of both internal back office and external diplomatic activities based on your research into ICT enhanced instruments... and.... during the Covid-19 crisis, this has ensuring that Qatar’s diplomatic functions continue to operate effectively in the digital world”* (4).

Challenging that the “digital by default” mantra in the UK has no reference to what governments and public bodies actually do and how they do it, our research has created impact by postulating a frame of reference to DTPA that reverses the current model (and way of thinking) (9). This was achieved by placing the emphasis on how technology can modify policy instruments selected in the policy design process and thus aligning it with policy reform rather than on private sector norms as practiced by GDS (1, 5). The National Audit Office (NAO) Executive Director’s testimonial states, *“your work in the field of digital transformation has been extremely helpful in my work and review of ongoing projects. In particular our work on Digital transformation in government (HC 1059, 2016-17) considered how government could improve its approach to managing transformation. ...The impact of the NAO’s work on digital transformation has led to a large number of recommendations accepted by government”* (2). The London Borough of K&C (LBKC) Councillor cites the example of a project where he led the effort to issue 50 iPads to council officers resulting in positive impacts for the community and confirms that *“...I was able to make better informed decisions to connect technology with policy outcomes...”* (6).

Socio-Economic Impact

The evidence provided to the House of Commons on the Universal Credit (UC) system (1a) and to the Australian Senate Committee on DG (7) focused on identifying problems with the current approach to DTPA that have resulted in causing both financial and social hardship to ordinary citizens. This research has shown that whilst the aims of UC are laudable, the design of the instruments of policy implementation, the conception of the project to implement them, and the execution of the project have been done in the worst possible way. The visible effects reported in evidence to the Parliamentary Committee are symptoms (1a), but the causes lie deep and tweaks to the current system are unlikely to improve matters as highlighted during the Covid-19 crisis. Based on our research, parliamentary (1b) and senate committees (7), local government officials (6, 8, 9), councillors (6), professional bodies (3, 10), heads of department in national government institutions (2) and ambassadors in diplomatic missions (4) were influenced to rethink their approach to DTPA efforts. Consequently, these policy-decision makers have been impelled to use our research - resulting in the creation of public value and cost savings to the taxpayer as a result of influencing DTPA project outcomes. LBKS states that successful integration of technology at the council *“...have been influenced by your work and resulted in real impact and ensured public value and return on investment for the taxpayer”* (6).

In the UK, DTPA efforts totalling £2 billion were cancelled or failed to deliver expected outcomes during the past decade (National Audit Office). Prominent DTPA failures include: C-Nomis project for offenders (home office and ministry of justice), e-Borders system, BBC digital and video archives system, National Health Service’s Programme for IT (NPfIT), the Universal Credit and Common Agricultural Policy Delivery Programme (House of Commons, 2017; 2019). Our research continues to influence the trajectory of DTPA to avoid such failures, thus creating real impact through cost savings to the taxpayer (2, 8). As outlined by the Head of Productivity at Local Government Association (LGA), *“as well as significantly improving how services are designed and delivered online for citizens and businesses, digital-led projects enable staff and members to work more effectively both in and out of the office”*. *“The estimated savings from these programmes are currently in excess of £4.5 million”* (8). The longitudinal impact of our research beyond the 2017-20 period is highlighted by the Head of Productivity in LGA who states, *“it is estimated that over the next three-year period, five councils involved in digital*

transformation efforts linked to homeless reduction act of 2017 will collectively make over £430,000 of non-financial savings” (8).

5. Sources to corroborate the impact (indicative maximum of 10 references)

1. Evidence to Scientific Committees in the House of Commons
 - a) Work and Pensions Committee Inquiry into Universal Credit (Written)
 - [Written evidence from Bradford University \(UCR0006\)](#)
 - [Written evidence from Professor Vishanth Weerakkody \(UCU0037\)](#)
 - b) Science and technology Committee Inquiry into Digital Government (written and oral)
 - [Written evidence submitted by University of Bradford \(DIG0003\) September 2018](#)
 - [Prof Weerakkody giving evidence to the Science and Technology Committee](#) (starts at 9:35)
2. Testimonial letter from the National Audit Office (NAO)
3. Testimonial letter from SOCITM
4. Testimonial letter from Embassy of the State of Qatar in Washington DC
5. Memo to Mark Sedwill: Here's how to reboot government IT: The Register 30 October 2018, https://www.theregister.co.uk/2018/10/30/weerakkody_gds_interview
6. Statement of support from London Borough of Kensington and Chelsea (LBKC)
7. Hearing to the Australian Senate Committee on Finance and Public Administration inquiry into Digital Government: [Report: Digital delivery of government services](#)
 - a) [Chapter 1: Committee views and recommendations](#) (Sections 1.8, 1.11)
 - b) [Chapter 3: What is 'digital transformation' of government services](#) (Sections 3.3, 3.4, 3.5, 3.14, 3.15, 3.16, 3.17, 3.22, 3.27, 3.28, 3.29)
 - c) [Chapter 5: Whole of Government Issues](#) (Section 5.8)
8. Testimonial letter from Local Government Association (LGA)
9. Testimonial letter from Slough Borough Council
10. Digital Transformation in Transport, Construction, Energy, Government and Public Administration (2019), Joint Research Centre, European Commission; <https://doi.org/10.2760/90682>