REF2021

Institution: University of Liverpool
Unit of Assessment: UoA 34 - Communication, Cultural and Media Studies, Library and Information Management
Title of case study: Digital Exclusion in the UK: Changing Policy and Practice by Understanding Diversity in Access and Use
Period when the underpinning research was undertaken: 2013-2019
Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period employed:
Prof Simeon Yates	Assoc. PVC Research Environment; Professor of Digital Culture	2013-present
Dr. Elinor Carmi	PDRA	2018-present
Dr. Alicja Pawluczuk	PDRA	2018-2019
Dr. Jordana Blejmar	Lecturer	2014-present

Period when the claimed impact occurred: August 2013-December 2020
Is this case study continued from a case study submitted in 2014? No

1. Summary of the impact

Collaborative action research led by Yates with multiple stakeholders has identified that over 11 million UK citizens are non-users or limited users of digital systems. By identifying and presenting the consequences and inequities that flow from differing *levels* and *types* of digital exclusion, this work has directly impacted stakeholders in four ways:

1] Supporting new policy development for digital inclusion and skills by charities (e.g. Good Things Foundation and Carnegie UK Trust). **2]** Supporting UK national digital policy development including the first UK Digital Culture policy (Department of Digital, Culture, Media, and Sport (DCMS) and House of Lords). **3]** Developing regional digital inclusion policy for social housing organisations and local government. **4]** Providing evidence for policy advocacy by charities and NGOs, including national media contributions to develop broader public and policy debate.

2. Underpinning research

Yates has led a programme of research across multiple projects over the census period. The programme examined digital technology use in the UK, focusing on digital inequalities and social exclusion. It has been supported by seven different agencies and stakeholders, including ESRC, AHRC, and the Nuffield Foundation, to a value of £2.1M. All projects included action research or impact-focused elements and were co-designed in partnership with stakeholders.

The research programme focused on the correspondence of differing levels of digital engagement with economic, social, and cultural inequalities. Drawing on nationally representative surveys, the team identified eight types of users of digital systems within the UK population (3.1; 3.3; 3.5). These 'user types' varied in their levels and range of engagement with digital systems, ranging from extensive and broad use through to constrained, limited and non-use. These types of user were found to correspond with measures of social, economic, and cultural inequality. The analyses demonstrate a spectrum of digital inequality and exclusion that is more nuanced than many policy definitions – which are often based on simple measures of access to broadband or basic digital skills. The programme of research has included a mix of quantitative survey work and secondary data analysis, qualitative interview and observational work and action research through interventions and policy development. The programme of work and policy engagement is ongoing and has recently expanded into questions of citizen data literacy.

The research (3.1) directly questioned policy assumptions and statements by 'think tanks' (e.g. Policy Exchange) that 'digital exclusion' is predominantly an 'age cohort' effect that will diminish over time. It has also (3.2) highlighted the importance of digital exclusion for social policy, especially where digital service delivery potentially reinforces inequalities, with the rise of austerity driven 'digital by default' social services. This research underpinned work with social housing organisations and developed collaborations with the Good Things Foundation and DCMS. Good

Things Foundation is the UK's leading digital inclusions and social change charity. They support socially excluded people to improve their lives through digital, via a network of several thousands of Online Centres around the UK and Australia. Reference 3.3 reports on work that directly linked digital inequalities with a model of social class (Bourdieu) and notes the correspondence of digital and cultural exclusion. This work underpins the #cultureisdigital policy work with DCMS. Research undertaken for CISCO (a world leading network technology corporation) explored employee attitudes to new workplace digital technologies across all UK employment sectors (3.4). This work highlighted the importance of organisational digital leadership in successful uptake and acceptance by the workforce. It also identified the poor transfer of digital skills between work and personal contexts and vice versa. These results fed into the arguments for clear arts sector digital leadership in the #cultureisdigital policy and work on skills with Good Things.

Working with the Good Things Foundation's "100% Digital Nation" campaign and using the UK Ofcom media literacy surveys (2007-2019), the research explored "limited" users of the digital systems in greater depth (3.5). These findings identified the key demographics of limited and constrained users such as social class, health conditions, educational attainment, household composition, and urban/rural location. It challenged assumptions that limited and constrained use is predominantly linked to older users, revealing evidence of constrained or 'narrow' use among younger citizens, alongside a strong correspondence with deprivation and education. Over the last two years, the research has focused on the links between digital inequalities, digital citizenship, and digital literacy (3.6). This work defines data literacy and identifies the gaps in current data literacy frameworks. The overall research programme has underpinned various media interventions designed to publicly foreground digital exclusion as a policy area.

3. References to the research

3.1 Yates, S.J., Kirby, J., Lockley, E., (2015), "Digital media use: differences and inequalities in relation to class and age", *Sociological Research Online,* Vol. 20, Issue 4, (https://doi.org/10.5153/sro.3751).

3.2 Yates, S., Kirby, J., Lockley, E., (2015) "'Digital-by-default': reinforcing exclusion through technology" in Foster, L. Brunton, A. Deeming, C. and Haux, T. (eds) (2015) *In Defence of Welfare II.* Bristol: Policy Press, pp.158-160 (http://www.social-policy.org.uk/wordpress/wp-content/uploads/2015/04/39_yates-et-al.pdf).

3.3 Yates, S.J., Lockley, E., (2018), "Social media and social class", *American Behavioural Scientist,* Vol. 62, Issue 9, pp.1291-1316 (https://doi.org/10.1177/0002764218773821).

3.4 Yates, S.J., Lockley, E., (2020), "Digital culture at work and the uptake of digital dolutions: personal and organisational Factors" in Yates, S.J., Rice, R., *The Oxford Handbook of Digital Technology and Society,* Oxford: Oxford University Press, pp.426-428 (https://doi.org/10.1093/oxfordhb/9780190932596.013.25).

3.5 Yates, S.J., Carmi, E, Lockley, E., Pawluczuk, A., French, T., Vincent, S., (2020), "Who are the limited users of digital systems and media? An examination of UK evidence". *First Monday*, Vol. 25, No. 6 (https://firstmonday.org/ojs/index.php/fm/article/view/10847/9565).

3.6 Carmi, E., Yates, S.J., Lockley, E., Pawluczuk, A., (2020), "Data citizenship: rethinking data literacy in the age of disinformation, misinformation, and malinformation". *Internet Policy Review*, Vol. 9, Issue 2 (https://doi.org/10.14763/2020.2.1481).

4. Details of the impact

Through presenting the consequences that flow from differing *levels* and *types* of digital exclusion the research has had impacts on policy and practice across the four areas below:

4.1 Supporting new policy development for digital inclusion and skills by charities

The research has been utilised by Good Things Foundation to directly support projects, interventions, and advocacy. The Chief Executive of Good Things has noted: "Prof. Yates's analysis has been critical in helping us and others to understand that having internet access alone is no longer sufficient; and that many of the risk factors which correlate with wider social and

economic exclusion and health inequalities are also evident among 'limited users' as well as 'non-users' of the internet" (5.1.1). Good Things' "Blueprint for a 100% Digitally Included UK" (5.2.2) uses "Prof. Yates's analysis to highlight the importance of providing digital skills support to those with some, but limited, digital skills" (5.1.1). This joint work is included in the House of Lords Library Briefing on "Digital Skills in the UK" (5.6.2, pp.3-9).

The collaboration with Good Things identified four key sets of motivational challenges that digital inclusion policy and practice needed to address (5.3.1). This work informed Good Things Foundation's BT funded "Digital Motivation" project (5.3.2) and their work with FutureDotNow, a coalition of leading companies and civil society groups working in collaboration with the government to boost the UK's digital skills. Good Things Chief Executive noted that the recent work on data literacies (3.6) "has been instrumental in us further advocating with our current funding partners, such as BT, Google, DfE, for a focus on the development of online safety skills and awareness as an outcome of our national programmes" (5.1.1). For Good Things, the research "is critical in terms of our national campaign for 100% Digitally Included Nation, where creating an evidence base through research … is helping us understand and address the multiple digital divides that exist for people (particularly those who are socially excluded). The result being that we are able to deliver a far reaching, multi-million pound digital social inclusion programme that has supported over 2.7 million people to benefit from digital" (5.1.2).

Carnegie UK Trust is a charity with the strategic aims of improving wellbeing, championing shared learning in UK and Ireland and working across the public, private and voluntary sectors. The Trust has directly drawn on the research to design Scotland wide intervention programmes as part of their "Digital Futures" theme. The Head of Advocacy at Carnegie UK Trust notes that "the work Professor Yates has done around how 'limited users' experience the internet has contributed to our thinking, development and framing of how we talk about young people's digital skills; and contributed to strengthening the argument for increased digital skills support for young people, particularly in lower socio-economic demographics" (5.4.1). This, along with the linking of digital inequalities and motivations, "has been a core piece of research that has informed our work supporting the development of the Connecting Scotland offer, a new digital inclusion programme set up in Scotland in response to COVID-19" (5.4.1). This programme started in April 2020 and is designed to get 30,000 digitally excluded households online by the close of the year (5.4.2). Phase 1 (April – July 2020) focused on those who were at risk due to Covid. Phase 2 has focused on households with children and care leavers. To December 2020, the programme has supported 986 community intervention projects across Scotland (5.4.2).

4.2 Supporting UK national digital policy development

In 2017 Yates was seconded over the year as the research lead to the DCMS Digital Culture Project (#cultureisdigital) (5.5.1). The research formed an integral part of the development by DCMS of the first ever UK Digital Culture policy with commitments in three areas: Audiences; Skills and Digital Capability and Future Strategy (5.5.2, p.15). This work contributed particularly to examining the intersection of digital and cultural exclusion (3.3) and the role of digital leadership in organisations (3.4). A key aspect of the policy development was an emphasis on the need to ensure digital culture practice opened up access - rather than mirror or reinforce existing inequities in access to arts, culture, and heritage (5.5.2, p.21). Implementation of the policy was led by 14 commitment holders (5.5.4, p. 4) including DCMS, Arts Council England (ACE), National Lottery Heritage Fund (NLHF), British Library and Intellectual Property Office (IPO) (5.5.4). For example, DCMS encouraged recipients of UK City of Culture and Cultural Development Funding to include digital audience development as part of their strategic plans and ACE committed to ensuring that its Creative People & Places programme used digital communications and platforms (5.5.4, p.13). ACE and the NLHF were provided £2.1M funding to support the implementation of the core policy. This included commitments to require "funded organisations get better at collecting, using and sharing audience data" (5.5.4, p.8). ACE launched a £1.1 million Digital Culture network and NLHF launched a £1M Digital Campaign, including in their new five-year strategy a commitment to "supporting organisations to embed digital thinking in every project to ensure that they can take full advantage of new technology to conserve heritage and to make it more inclusive" (5.5.3). This included a two-year capacity and leadership building programme and hiring a new head of digital policy. Investment in infrastructure also followed, such as the National Gallery Innovation Lab. A

digitisation task force was established bringing together organisations including the Victoria & Albert Museum, the British Film Institute, Natural History Museum, Collections Trust and Culture 24, with an online hub for resources on digitisation standards (5.5.3).

Yates' research on digital inequalities directly contributed to the work of the DCMS Digital Skills and Inclusion and Research Working Group (RWG), by enabling it to identify, "the types of training and target populations that DCMS should support/fund to ensure (and improve) UK prosperity" (DCMS Head of Economics Analysis testimonial, 5.5.4). The RWG, jointly chaired by Yates, meets to assess research-based critical evidence on digital skills and inclusion for DCMS. RWG evidence briefs have underpinned proposals to Her Majesty's Government spending review and DCMS business cases. In 2018/2019 these briefs made use of the team's action research with Good Things Foundation, particularly around skills and motivation. The DCMS Deputy Director of Digital Skills & Inclusion has stated that the "RWG's work continues to be key in underpinning our policy development" and is a key source of evidence for "the Digital Skills and Inclusion team's policy development" based on "concrete outputs, drawn to support policy development" (5.5.4).

Finally the "Data Citizenship" and inclusion model developed by the team and survey findings on the lack of digital and data literacy in key social groups (3.6) has already been used in policy reviews around online harms and mis/dis/mal/information in digital media. Drawing on the recent "data citizenship" research the team contributed evidence to the House of Lords Select Committee on Democracy and Digital Technologies. The Select Committee's June 2020 report on "Digital Technology and the Resurrection of Trust" took direct verbal and written evidence from the research team and the Chief Executive of Good Things Foundation. Quoted evidence (5.6.1, pp.107;110;120;121) is used to support recommendations 41, 43, and 44. Recommendation 41 on "Active Digital Citizens" states that Ofsted, DCMS and Ofcom evaluate digital media literacy initiatives (5.6.1, pp.107;129). Recommendation 43 states that Ofcom require digital platform design changes to "increase rather than decrease informed user choices" (5.6.1, pp.121;130). Recommendation 44 states that Ofcom develop a code of practice on transparency in platform design and that DfE should review curriculum to ensure citizens "are taught what to expect from user transparency on platforms" (5.6.1, pp.122;130).

4.3 Development of regional digital inclusion policy for social housing organisations and local government

Research findings (3.1, 3.2) underpinned policy recommendations for Sheffield Homes, the arm's length local government housing provider at the time. Developed at the start of the census period, these recommendations were then taken up by other social housing groups to underpin targeted digital inclusion interventions (5.7.1). In Warrington and St Helens (5.7.2), Helena Homes used the research and policy recommendations (5.7.1) to provide "senior managers a handle on the problems and issues around Digital Inclusion in target setting for our digital-by-default strategy". They then "built a propensity model using the indicators identified to try and work out across Warrington and St. Helens which of our customers were likely to be off and online in which age grouping". The intervention programme meant they "were able to get the number of people onto our online services from a base of about 15% up to 50% over a 2-year period" (5.7.2).

The consequences of lockdown have brought digital exclusion issues to the fore. The research and policy approach has gained thus renewed pertinence for regional interventions. Since summer 2020, the research (3.5) has been used by Greater Manchester Combined authority (5.8.1) to underpin development of policy and interventions as part of their new "Digital Inclusion Agenda For Change" (5.8.2).

4.4 Research evidence for policy advocacy by charities and NGOs and to support public debate

A major benefit of the research has been the shifting of public and policy focus from narrow measures of access to technologies and digital skills to a broader and more nuanced consideration of the limited use of digital media. Infographics based on the research – for example the Good Things "Digital Nation Infographic" (5.2.1) and BT "Digital Motivations Infographic" (5.3.1) – have allowed Good Things to "communicate the key facts and evidence about digital inclusion and exclusion in the UK to a wide, non-academic audience – including parliamentarians, policy makers, journalists, industry stakeholders … voluntary and community sector organisations … and

public sector stakeholders" (5.1.1). The Chief Executive of Good Things Foundation confirmed that they use "all these outputs as part of our UK advocacy work, raising awareness of digital exclusion and data poverty in the UK, and calling on government, industry and civil society to work together to #FixtheDigitalDivide". She also noted that findings were "instrumental in bringing about greater awareness of the economic and social issues" that underpin digital engagement and motivation factors "to a wider audience, including national employers and members of FutureDotNow's coalition such as Asda, Barclays, CBI, Deloitte and IBM to name but a few" (5.1.1).

The research (3.1; 3.2) has also been drawn upon by a range of other policy organisations. For example, Reform (an organisation dedicated to improving public services) utilised the research for their report "Inclusive by default" critiquing "digital by default" social service access and delivery (5.9, p.8). The "Data Citizenship" work was formally included in a policy debate publication on digital skills by the International Telecommunications Union (5.10, pp.60-69).

The research has been presented and discussed in UK and non-UK media outlets informing and educating the wider public on the importance and relevance of digital inclusion to society and to the future. Two notable examples that build directly on the research are the 2019 documentary "Priced Out? Old and Offline" by the ITV Tonight programme (2.7M viewers as broadcast) and the BBC Radio 4 documentary "Digital Future: the New Underclass" (2.5M listeners as broadcast).

5. Sources to corroborate the impact

5.1   Testimonials from Good Things Foundation: 1] Letter from the Chief Executive; 2] E-mail from the Head of Research.

5.2   Good Things Blueprint for a 100% Digitally Included Nation: 1] Infographic; 2] Report.

5.3   Good BT Digital Motivations: 1] Infographic; 2] Report.

5.4   Evidence of impact from Carnegie UK Trust: 1] Letter from the Head of Advocacy; 2] Connecting Scotland Programme.

5.5   Evidence of impact from DCMS: 1] Letter of thanks from the Minister for Arts, Heritage and Tourism; 2] #cultureisdigital recommendations; 3] DCMS #cultureisdigital impact report; 4] DCMS RWG email testimonials from DCMS Senior Policy Adviser, the Head of Economics Analysis, and the Deputy Director of Digital Skills & Policy.

5.6   Evidence of impact House of Lords: 1] House of Lords Select Committee Report (pp.107;110;120;121), 2] House of Lords Library Briefing.

5.7   Evidence of impact on social housing: 1] Policy recommendations for Sheffield Homes; 2] email testimonial from Helena Homes.

5.8   Evidence of impact Greater Manchester Combined Authority: 1] Email statements from GM Digital Innovation and Partnerships Lead; 2] Greater Manchester Digital Inclusion - Agenda for Change.

5.9   Evidence of policy advocacy: Reform.

5.10 Evidence of policy debate: International Telecommunications Union.