Left Behind Neighbourhoods and Digital Poverty amongst Older People

Dr Frances Darlington-Pollock, Mr Yuanxuan Yang, Dr Les Dolega,
Prof Alex Singleton and Prof Simeon Yates

University of Liverpool

Summary

COVID-19 has illustrated the importance of addressing the longstanding digital divide in our population. Uneven access to IT infrastructure in the home or broadband, and differences in internet usage will impact experiences of lockdown, social distancing and self-isolation.

This brief focusses on the experiences of older people, a group often homogenised in policy debate including within responses to the current pandemic. It highlights the significance of monitoring digital inequalities both through usage and access to technology, summarising the likely characteristics of limited and non-users of digital systems.

Indicators of digital poverty for people aged 50 and over are estimated at a small area level (lower super output area – LSOA). Comparisons are made between LSOAs within the 'left behind' areas and those in the 10% most deprived areas of England. Results identify both the types of people and specific areas which would benefit from more targeted local interventions, such as providing digital skills training or distributing IT equipment.

Policy Implications

The APPG for Left Behind Neighbourhoods has highlighted relevant connectivity challenges, emphasising public transport and the digital divide. Recommendations centre upon improving public transport and **getting residents online**.

To **better channel resources** in respect of the latter, the evidence presented here focusses attention on **specific neighbourhoods** and **population groups** which may benefit from **targeted efforts** to boost digital connectivity and literacy.

'Digital inclusion', Centre for Ageing Better, licensed under CC BY-NED 4.0

This will reflect a more **efficient** use of resources and infrastructure, particularly if evidence presented are combined with wider socio-economic or health and wellbeing needs assessments.

Key Findings

- **Limited users of digital systems more likely to be older, have left school at 18 or before, have disability or health issues, to be unemployed or retired and financially vulnerable, living in households on low or very low incomes;**

- **Non-users similar to limited users, but generally older and even more likely to have health issues and to be in social housing;**

- **The percentage of the older people within the 'left behind' LSOAs ranges from 10.3% (within Gosport) to 72.2% (within Tendring);**

- **Overall, left behind areas perform slightly better on all indicators of digital poverty for people aged 50 and over compared to the 10% most deprived areas in England;**

- **Of the 1,468 LSOAs which comprise the 'left behind' areas, 63% perform worse than the 10% most deprived areas on at least one indicator of digital poverty, while 35% perform worse on 5 or more indicators of digital poverty;**

- **LSOAs with 40% or more of their population aged 50 and over which perform poorly on 5 or more indicators of digital poverty may benefit from targeted interventions to improve digital access and literacy during this pandemic.**

Differentiating Users

Analysis of the Ofcom Adults' Media Literacy Survey consistently differentiates between types of users of digital systems according to probabilities of different types of usage behaviour (Yates et al., 2020). Limited users either reflect those with low usage probabilities (below 50%) on all behaviours except social media, and a lower variety of apps and sites used; or those with low usage probabilities (below 50%) on all behaviours including social media, and a low variety of apps and sites used. Limited users are often overlooked in development of policy and practice to address digital inequality, focussing instead on material access to broadband or IT equipment. Yet their characteristics highlight particular risks of digital exclusion and inequality:

- "Limited (social medial) users" (17%) and "Limited (no social media) users" (10%) equate to around 17 million adults, more likely to be older (55 and above), have left school at 18 or before, have disability or health issues, to be unemployed or retired and financially vulnerable, and in households on low or very low income.
- Those limited users who do not use social media at all are more likely to be rural and also to have disability or health issues that impact their lives.
- "Non-users" (15%) equate to around 10 million adults. No direct engagement with digital systems. Similar characteristics to limited users, but generally older, and even more likely to have health issues and to be in social housing.

Indicators of Digital Poverty

Awareness of the likely attributes differentiating users of digital systems alongside detailed spatial data on indicators of digital poverty provides a key evidence base for policies and interventions to target people and places. However, indicators such as access to a computing device in the home, access to broadband, internet usage and frequency of use are not routinely collected at a small area level. This can hamper efforts to efficiently target resources and interventions. Through statistical techniques combining spatial microsimulation and small area estimation, we derive new spatial detail from national survey data (British Population Survey) to better understand experiences of digital poverty amongst the population aged 50 and over (for more detail on the methods, see Singleton et al., 2020). Table 1 summarises the indicators created.

Table 1 Indicators of Digital Poverty for Older People

Name	Description
IT Equipment	
Owns PC	% of population aged 50+ own a PC at home
Owns Smartphone	% of population aged 50+ own a smartphone
Access	
Broadband Access	% of population aged 50+ with broadband access at home
Internet Usage	
Information (various)	% of population aged 50+ use internet for information about hobbies, interests, products, and services
Finance / banking	% of population aged 50+ use internet for financial services
Online shopping	% of population aged 50+ use internet for online shopping – includes groceries and non-groceries
Social network / VOIP	% of population aged 50+ use internet for social networks and telephone / video calls
Frequency	
More than once a week	% of population aged 50+ use internet **more** than once a week
Non-user	% of population aged 50+ **never** use internet

Source: British Population Survey (BPS), 2011-2014

Note: The latest release of BPS (2015) are not included due to high levels of missing data on key variables, such as access to broadband.

Figure 1 summarises the median value across LSOAs for England, the left behind areas, and the 10% most deprived areas. For all indicators, while left behind areas generally perform poorer relative to the England median, there is much less differentiation when compared to the 10% most deprived areas. Further analysis (not presented) revealed that while the general population aged 16-74 in left behind areas are less advantaged across a range of measures (e.g. education, tenure) relative to the 10% most deprived areas, the population aged 50 and over fare slightly better.
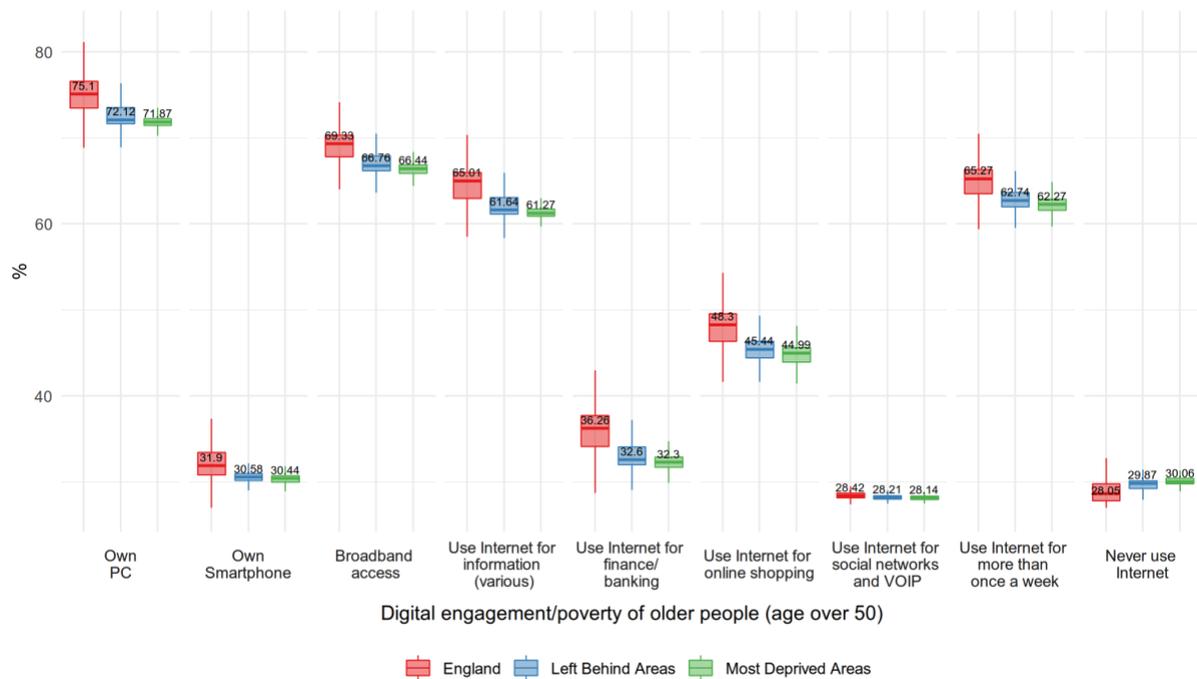
Figure 1 Comparing median values of digital poverty for older people: England, Left Behind Areas and 10% Most Deprived Areas

However, within individual LSOAs that comprise the left behind areas there is more differentiation. Figure 2 provides an example, plotting estimates for internet use and online shopping across Merseyside. LSOAs for left behind areas are identified with an orange boundary line. Some of the lowest estimates of internet usage for online shopping amongst the older population are captured within the left behind areas. Elsewhere, areas around the city centre also have high estimates which may be explained by proximity to city-centre shopping and amenities.
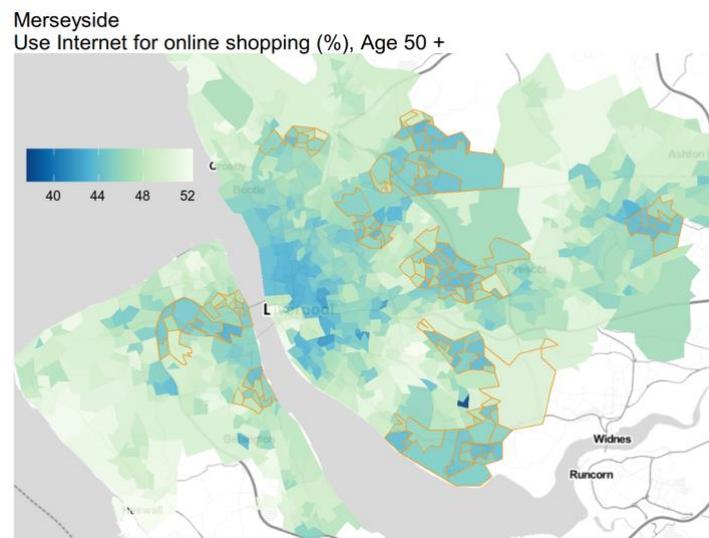
Figure 2 Small area estimates for internet usage – online shopping: Merseyside

In total, 63% (*n* = 927) of left behind LSOAs perform worse than the median level for 10% most deprived areas on at least one indicator of digital poverty. 12% (*n* = 181) perform worse across all indicators, with 35% (*n* = 517) performing worse on 5 or more indicators of digital poverty.

For some areas which also have a high proportion of the population aged 50 and over (40%+), consistently poor performance across the indicators of digital poverty relative to the 10% most deprived areas may be illustrative of higher needs. Examples include neighbourhoods within Bransholme, Longhill, and Southcoates in Kingston upon Hull (e.g. see Figure 3), and Stanley, Deneside, Easington, and Ferryhill in County Durham (e.g. see Figure 4).

Where older people in left behind areas are already facing disadvantage, particularly in respect of health and wellbeing outcomes, heightened digital poverty may further exacerbate existing and deepening inequalities. These results identify areas which may benefit from more targeted interventions within left behind areas to support the health and wellbeing of older residents. Interactive maps for all the indicators estimated are available through the links detailed below.

Further Information

Centre for Ageing Better (2020) How the digital divide affects older adults' use of technology during COVID-19, https://www.ageing-better.org.uk/blogs/how-digital-divide-affects-older-adults-use-technology-during-covid-19 [last accessed January 2021]

Singleton, A., Alexiou A., Savani, R. (2020) Mapping the geodemographics of digital inequality in Great Britain: An integration of machine learning into small area estimation. *Computers, Environments and Urban Systems*, 82: 101486

Yates, S.J., Carmi, E., Lockley, E., Pawluczuk, A., French, T. and Vincent, S. (2020) Who are the limited users of digital systems and media? An examining of U.K. evidence. *First Monday*, https://doi.org/10.5210/fm.v25i7.10847 [last accessed January 2021]

Interactive Maps

The interactive maps plot all estimates of digital poverty calculated for all LSOAs across England. LSOAs of 'left behind' areas are identified with an orange boundary line.

Part 1: https://tinyurl.com/y6kj73lo

Part 2: https://tinyurl.com/y46ob54e
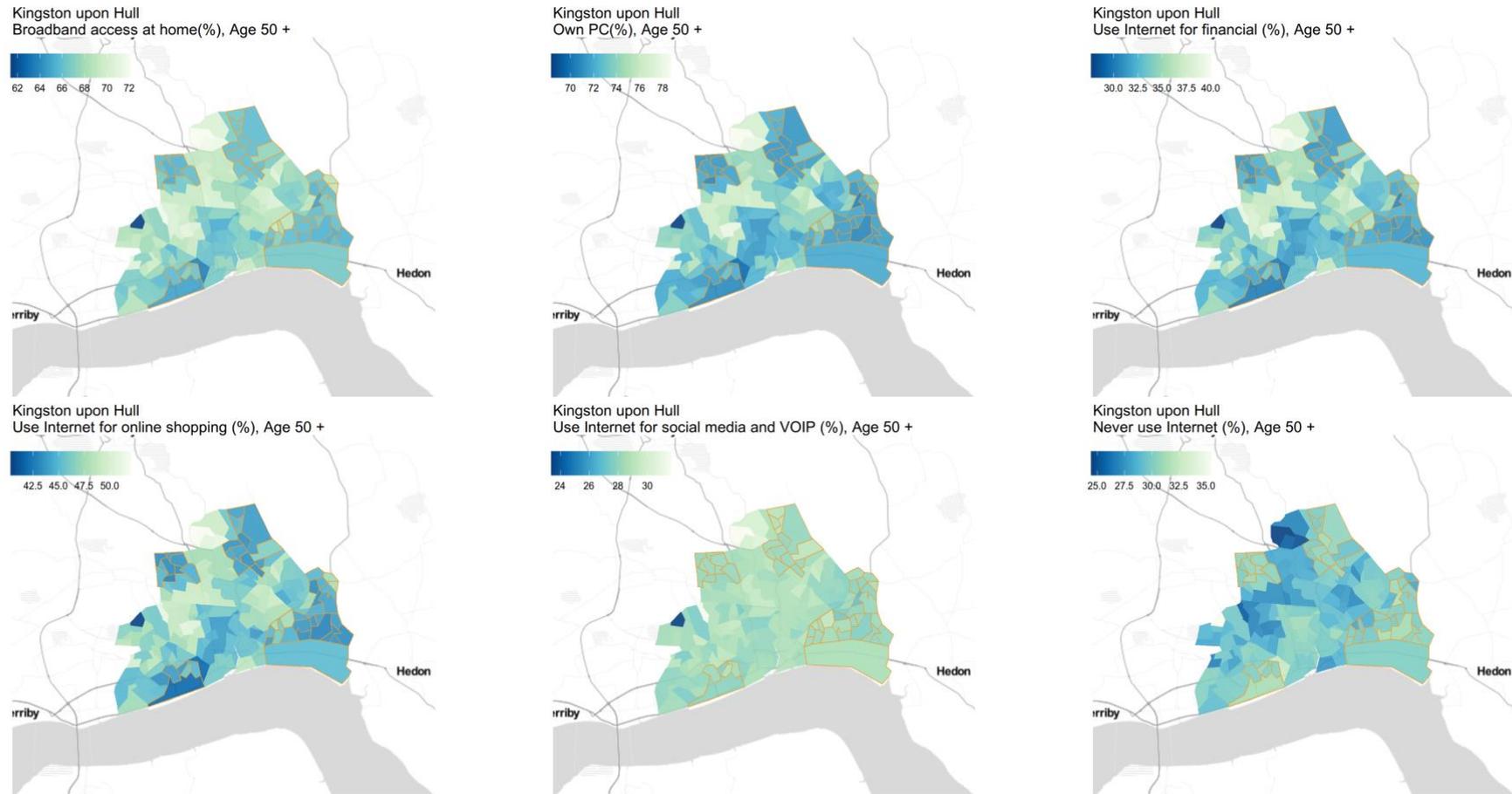
Part 3: https://tinyurl.com/yyxztr9g

Figure 3 Small area estimates for indicators of digital poverty: Kingston upon Hull
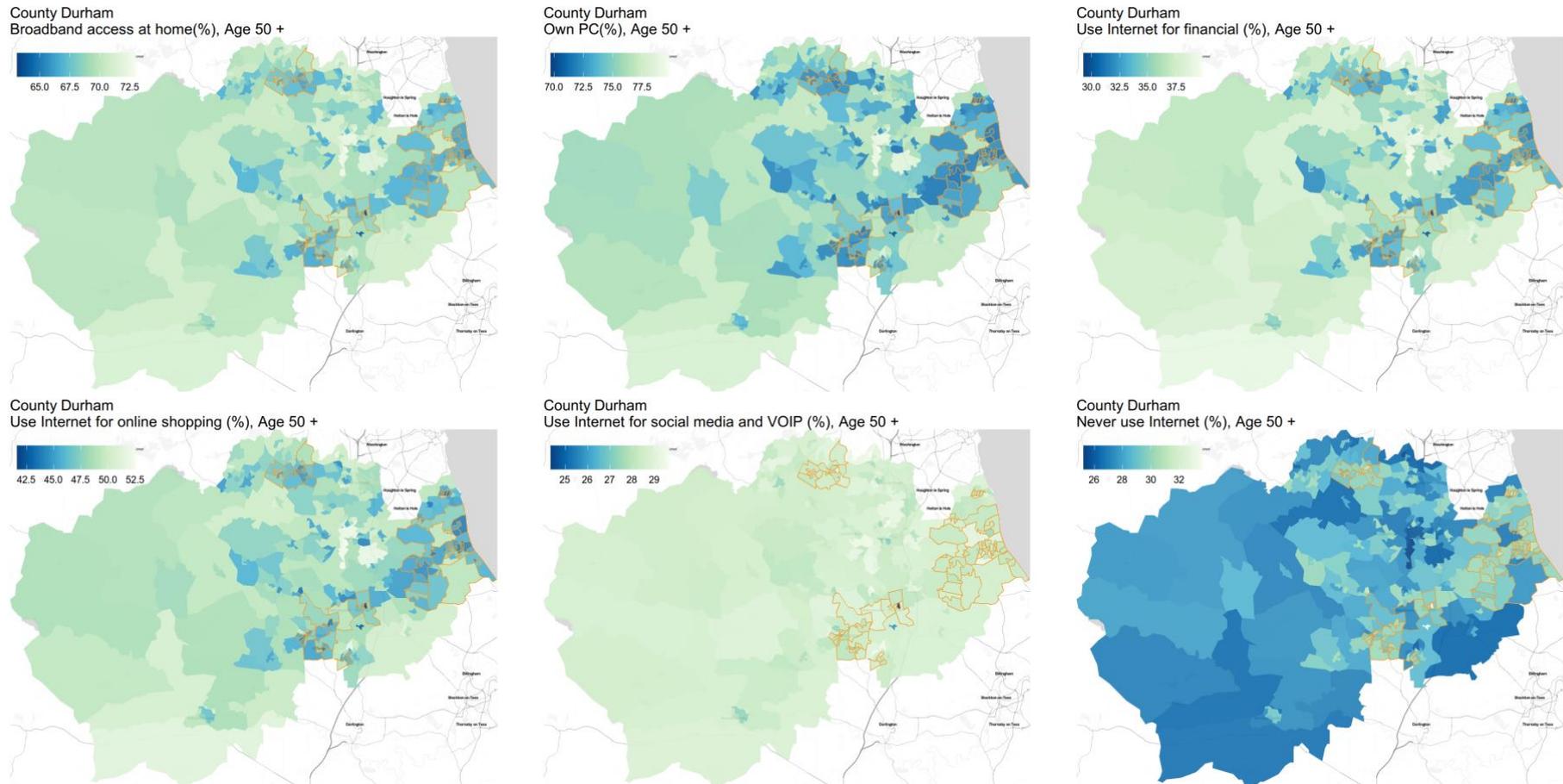
Figure 4 Small area estimates for indicators of digital poverty: County Durham

Acknowledgements