

Digital inclusion: What the main UK datasets tell us.

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This paper offers an overview of the main UK datasets on digital inclusion. It is a collaboration by Good Things Foundation, Lloyds Banking Group, Nominet, and University of Liverpool.





Digital inclusion is being able to access the internet and engage online – safely and confidently – when you need and want to.

With opportunities and services increasingly online, digital inclusion is a basic need. As a minimum, this requires a device, connectivity, digital skills, and support when needed.

What are the headline statistics on digital inclusion?

- 9% of households struggle to afford mobile (c2.6m households) (*Ofcom*)
- 8% of households struggle to afford broadband (c1.9m households) (*Ofcom*)
- 16% of adults lack the Foundation-level essential digital skills (c8.5m adults) (*CDI*)
- 4% of adults are offline (c2.1m); 15% of whom are under 50 years old (c310k) (*CDI*)
- 45% of households with children are below the Minimum Digital Living Standard (c3.7m) (*MDLS*)
- 14% of young people (8–25 years) lack access to a device suitable for learning (c2m) (*DYI*)
- 4% of 8–25 year olds lack both a learning device and home internet (c570k) (*DYI*)

What are the main UK datasets on digital inclusion?

[Ofcom's Affordability Tracker, Tech Tracker, Media Use and Attitudes](#) research (*Ofcom*) and [Lloyds Banking Groups's UK Consumer Digital Index](#) (*CDI*) are relied on to track digital inclusion.

This briefing also uses recent UK surveys: Nominet [Digital Youth Index](#) (*DYI*), [Minimum Digital Living Standard Survey for Households with Children](#) (*MDLS*) and [Digital Skills, Channel Preference and Access Needs](#) (*DWP*).

Data from the Office for National Statistics is limited: the latest release is [Internet Users, 2020](#) which uses one question to estimate the online population: 'Have you used the Internet in the last three months? (e.g. desktop, laptop, mobile or tablet)'.

There are major gaps in administrative data preventing analysis of links between digital exclusion and other issues, like population health.

Good Things Foundation brings together key statistics in its annual [Digital Nation](#) series.

What do we mean by 'digital inclusion'?

People need access (device, connectivity) and skills (to use devices and to engage online). The [Minimum Digital Living Standard](#) definition (defined with members of the public) reflects that all are needed in combination.

“A minimum digital living standard includes accessible internet, adequate equipment, and the skills and knowledge people need. It is about being able to communicate, connect, and engage with opportunities safely and with confidence.”

Devices

People need access to a suitable device. Access may be personal, shared, or public. Suitability varies by needs and uses (e.g. assistive tech to support use by someone with a visual impairment; or a larger screen to support use for school). Affordability and accessibility are two key issues. E-waste is a rising environmental concern.

Connectivity

Engaging online requires an internet connection and data. People benefit from personal or household access to both mobile and broadband. Public wifi is less secure. Connectivity is also about reliability and quality. Adequacy varies; e.g. a family with children at school may need more data or faster speeds than a retired adult living alone). Online services vary in how much data they use. Cost, connectivity, and quality of connectivity are key issues. Changes like the PSTN switchover and 3G switch off are key issues for some groups.

Support

People may need help with basic access and skills; to keep up with change; to use online services (especially at times of vulnerability); and to access opportunities.

- People facing barriers may be the least able to get help online, or from family, friends or work – making access to free local support essential for inclusion.
- Motivation, confidence, trust, and experiences also shape people's interest to engage online.

Skills

People need a range of skills (literacies, knowledge, capabilities) to use devices and data, and to engage online safely, confidently, in a way that supports wellbeing and brings benefits. New technologies (like AI) and changing uses of digital shape the skills people need. There are overlaps with other literacies – such as financial, health, and media literacy (e.g. staying safe, recognising mis- and dis-information), and digital wellbeing.

- The Essential Digital Skills framework groups skills into three areas: Foundational; Skills for Life; Skills for Work. It was developed by cross-sector collaboration, and is the basis (in England) for the Essential Digital Skills entitlement and qualifications.
- The Minimum Digital Living Standard was developed with members of the public. It is a holistic, household-level framework for 'enough to feel included'. People thought about what a household needs in: digital goods and services, the practical /functional skills to use these, and the critical skills for understanding and managing digital risk.
- Ofcom's media literacy research provides insight about the component parts of media literacy and how these intersect. Its work focuses on online behaviour and attitudes and foregrounds the importance of critical understanding.

What do we mean by 'digital exclusion'?

Digital exclusion is when a person (household, group, community) has one or more barriers to accessing the internet and engaging online. The main barriers are:

- Unable to access or afford a suitable device or sufficient data connectivity
- Lacking all or some of the skills to engage online safely and confidently - including critical skills to understand and manage digital risks (media literacy)
- Lacking support to learn new things and get help when things go wrong
- Accessibility barriers, such as lack of assistive software, hardware, or support needed.

Digital exclusion and digital inclusion are not 'fixed' states. People may face one or more digital barriers, to different degrees, at different times, and related to other vulnerabilities or life events. People may gain or lose access; gain or lose skills and confidence; gain or lose support.

It helps to think of digital exclusion as a spectrum along which people move; this includes:

- People who are offline and have never used the internet (offline)
 - Some may ask others they know to go online for them (proxy users)
 - Some may be offline but previously used the internet (lapsed users)
- People who use the internet for one or very few things (low or limited users)
- People who use the internet for several things but lack the access and/or skills and/or motivation and/or trust to engage fully with opportunities (limited users)

Digital exclusion is a public policy issue because it has become a major barrier to accessing opportunities (e.g. work) and accessing services (e.g. health, education, benefits, banking). The term 'digital divide' conveys the gap between those who find it easy or affordable to engage online, and those who don't; and the gap in opportunities, outcomes, quality of life, and quality of experiences (as more benefits accrue to those who are digitally included).

Digital exclusion intersects with other inequalities and protected characteristics:

- Older age is a key predictor of digital exclusion - especially for offline, never used, and 'lapsed' internet use. This is strongest for people aged over 65 years old.
- Poverty (often assessed using proxies like means-tested benefit use) is a key predictor of digital exclusion. This applies both to access and skills; skills decrease with reduced use. Digital exclusion can also make it harder to get out of poverty.
- Intersectionality with other characteristics - e.g. ethnicity, education, economic activity, housing, health, area deprivation - is a key feature of digital exclusion.

Given the combination of access and skills required, and varying situations in which people feel more or less digitally excluded, there is no single metric for: "How many people are digitally excluded?" There are a number of metrics which can be used together to give a picture of digital inclusion and exclusion, and those most affected. The 'industry standard' definition from the ONS needs updating; the question: 'Have you used the Internet in the last three months? (e.g. desktop, laptop, mobile or tablet)' is now an inadequate proxy measure for the 'online population'.

Key statistics



Access

Takeaway: Consistently across the different measures, a range between 15% and 20% of UK citizens, children or households are affected by limited digital access.

- 3% of adults don't have a smartphone, tablet, or laptop (c1.5m) (CDI)
- 8% of households struggle to afford broadband (c1.9m households) (Ofcom)
- 9% of households struggle to afford mobile (c2.6m households) (Ofcom)
- 15% of 8-25 year olds are without home broadband (c2.1m) (DYI)
- 14% of 8-25 year olds lack access to a larger screen device for learning (c2m) (DYI)
- 4% of 8-25 year olds lack both a learning device and home internet (c570k) (DYI)
- 81% of households with children fully meet the MDLS benchmark for digital goods and services (c6.6m); 15% partly meet it (c1.2m); and 4% fall far below the benchmark (c0.3m) (MDLS)



Skills

Takeaway: Consistently across the different measures, a range of between 15% and 30% of UK citizens, children or households are missing digital skills for everyday life.

Against the Essential Digital Skills framework (CDI)

- 16% of adults lack the Foundation digital skills (c8.5m); 2% (1.3m) cannot do any of the tasks
- 8% of adults lack the Essential Digital Skill for Life (c4.4m); 3% (1.5m) cannot do any of the tasks
- 18% of adults in the labour force lack the Essential Digital Skill for Work (c7.5m); 5% (c1.9m) cannot do any of the tasks; 54% (21.7m) cannot do all 20 of the work tasks

Against the Minimum Digital Living Standard for households with children (MDLS)

- 17% of households with children lack a parent with the practical skills to engage online (c1.4m)
- 14% of households with children lack a parent confident to use online systems to engage with their child's or children's schools (c1.1m)
- 27% of households with children lack a parent with the critical skills to understand and manage digital risk and online safety (c2.2m)
- 31% of households with children have secondary school children missing the critical skills to understand and manage digital risk and online safety (c2.5m)

Against other indicators of media literacy and digital wellbeing:

- 65% of adult internet users claim to use 'strong' passwords (Ofcom)
- 47% of search engine users are confident and able to recognise advertising in search engine results; 37% are confident but not able to do this when tested (Ofcom)
- 33% of social media users shown a real post thought it was fake or were unsure (Ofcom)
- 27% of adults feel confident in recognising AI-generated content online (Ofcom)
- 48% of social media users aged 16-24 said they spend too long on social media (Ofcom)
- 76% of 8-25 year olds have had upsetting online experiences (DYI)



Support

Takeaway: All population groups rely on friends, family, and work for digital skills support. However, opportunities for such support are significantly lower for some groups. Some very vulnerable people may depend on asking others to go online for them (proxy use).

- 52% of people who are offline ask someone to use the internet for them (Ofcom)
- 75% of people learn digital skills online, from friends (68%), and through work (66%) (CDI)
- 34% of people want to be able to get digital skills support in a community setting (CDI)
- 65% of young people not in education, training or employment are much more likely to learn digital skills by themselves (65%) and online (38%) compared to other young people (DYI)
- 54% of Attendance Allowance customers felt able to apply for or manage benefits online alone or with someone helping compared to 95% of Job Seekers Allowance customers (DWP)
- 46% of Employment and Support Allowance customers said they would rely on help from others to apply for or manage benefits online (DWP)

There is currently no metric to estimate how many people know where to get digital inclusion help. Good Things Foundation's [National Digital Inclusion Network map](#) offers a UK indicator of local support.



Characteristics

Takeaway: Digital exclusion intersects strongly with other forms of social and economic disadvantage, including area deprivation.

- Difficulty affording communications services is most likely to affect households (Ofcom):
 - in receipt of means-tested benefits (37%) or eligible for a social tariff (34%)
 - with a resident with a life impacting or limiting condition (39%)
- 23% of young people in receipt of free school meals lack home broadband (DYI)
- 48% of people with no formal qualifications lack foundation Essential Digital Skills (CDI)
- 37% of people aged over 65 years old lack the Foundation Essential Digital Skills (CDI)
- 25% of people with a disability or health condition lack Foundation Essential Digital Skills (CDI)
- 24% of people not working lack Foundation Essential Digital Skills (CDI)
- 21% of Attendance Allowance customers said their internet use declined in the last year (DWP)
- 36% of Pension Credit customers (and 16% of all DWP customers) were currently offline (DWP)
- Single parent households are 1.3 times less likely to meet the MDLS benchmark (MDLS)
- Larger families with more than two children are 1.7 times less likely to meet MDLS (MDLS)
- Social grades DE are 2.1 times less likely to meet MDLS than social grades AB (MDLS)
- MDLS modelling found a direct relationship between area deprivation and likelihood of households with children being below the MDLS benchmark (MDLS)



Motivation

Many factors shape why some people don't wish or feel able to engage online - including mistrust; poor experiences; fear or anxiety about online harms or about making mistakes; avoiding reliance on others; and preferring in-person contact. These can intersect with other barriers and characteristics. Among people who are currently offline: 14% say lack of interest is a key reason; 11% find the online world too complicated; 10% do not have access to an internet-enabled device; 7% are worried about potential scams and fraud (CDI).

Summary and recommendations

There is no single statistic or source of the truth on digital inclusion, but together the main UK datasets give a consistent picture of the issues and who is affected. There are things we can do collectively to improve the data and enhance its value in shaping policy, provision, and people's lives.

Limitation areas

- Small sample sizes restrict sub-regional or local analysis, and intersectional analysis
- Administrative data on direct links between digital exclusion and wider outcomes is limited – making it hard to quantify the impact of digital exclusion on, for example, healthcare access, patient outcomes, educational outcomes, or household income
- Budget constraints lead to reliance on annual snapshot surveys and self-reported data.

Action areas

- Collaborate to agree a core set of metrics to track progress towards digital inclusion
- Collaborate to agree a core set of digital demographic indicators for use in administrative data collection (e.g. by ONS, government, NHS, regulators) alongside other demographic data – to better understand impacts and intersectionality
- Explore other cost-effective ways to understand and monitor the relationships between digital exclusion and population outcomes over time
- Assess performance metrics (e.g. for monitoring, evaluating interventions, Social Value) to check they encourage holistic approaches to digital inclusion
- Promote publication of survey findings related to digital services, exclusion and inclusion by Government departments, NHS, and others for evidence-based policy and actions
- Champion continued use of non-digital methods of data collection (face to face, telephone) to include the voices and experiences of people facing digital barriers
- Make public, academic and commercial data available for secondary analysis through appropriate routes (e.g. Consumer Data Research Centre) by authorised researchers



Annex: More about the main UK datasets on digital inclusion

The main UK datasets provide different, complementary data on digital inclusion.

The **UK Consumer Digital Index (CDI)** is produced by Lloyds Banking Group and provides an annual assessment of where the adult (16+) population is against the Essential Digital Skills Framework. It is based on customer behaviour data and a nationally representative survey. It provides UK data on digital engagement levels, tracks progress against Essential Digital Skills, and also provides data on financial capability and links with digital capability.

Nominet's **Digital Youth Index (DYI)** has been produced for the last three years. Data is collected from children and young people about access to devices, connectivity, and digital skills. Data is also collected about attitudes and digital wellbeing.

The key **Ofcom** reports are **Connected Nations** (infrastructure), **Affordable Communications** (affordability), **Media Use and Attitudes** (literacy) of children and adults, and the **Technology Tracker** which provides data about household access to devices and connectivity. Ofcom is the main publicly funded producer of published data on digital inclusion at a UK level. At a sub-UK level, Ofcom publishes nation-specific data. (Affordable access data used in this briefing is from April 2024).

Minimum Digital Living Standard Households with Children survey (MDLS) is a nationally representative face-to-face survey of 1,582 households run in 2023. Supplemented by geodemographic analysis, it uses the MDLS framework to assess how many households with children meet or fall below the MDLS benchmark defined by members of the public.

DWP Skills Survey of DWP and PIP customers (DWP) is a UK survey on digital access, skills, and attitudes to engaging with DWP online. It is unknown whether it will be repeated.

Office for National Statistics (ONS) digital inclusion data is limited and needs updating. ONS definition of being online is 'Have you used the internet in the last three months'. This is a misleading proxy for inclusion, but it shows the extent of digitalisation in everyday life.

This briefing has focused on UK level datasets. At a sub-UK level, some questions on internet access are asked in the [Scottish Household Survey](#) and the [National Survey for Wales](#). The [Northern Ireland Consumer Council](#) has recently published reports on broadband affordability, accessibility, consumer digital literacy and online detriment.

Digital Exclusion Risk Index (DERI) is a tool (developed by Greater Manchester Combined Authority) covering England, Scotland, Wales. It uses proxy indicators to map risks of exclusion.