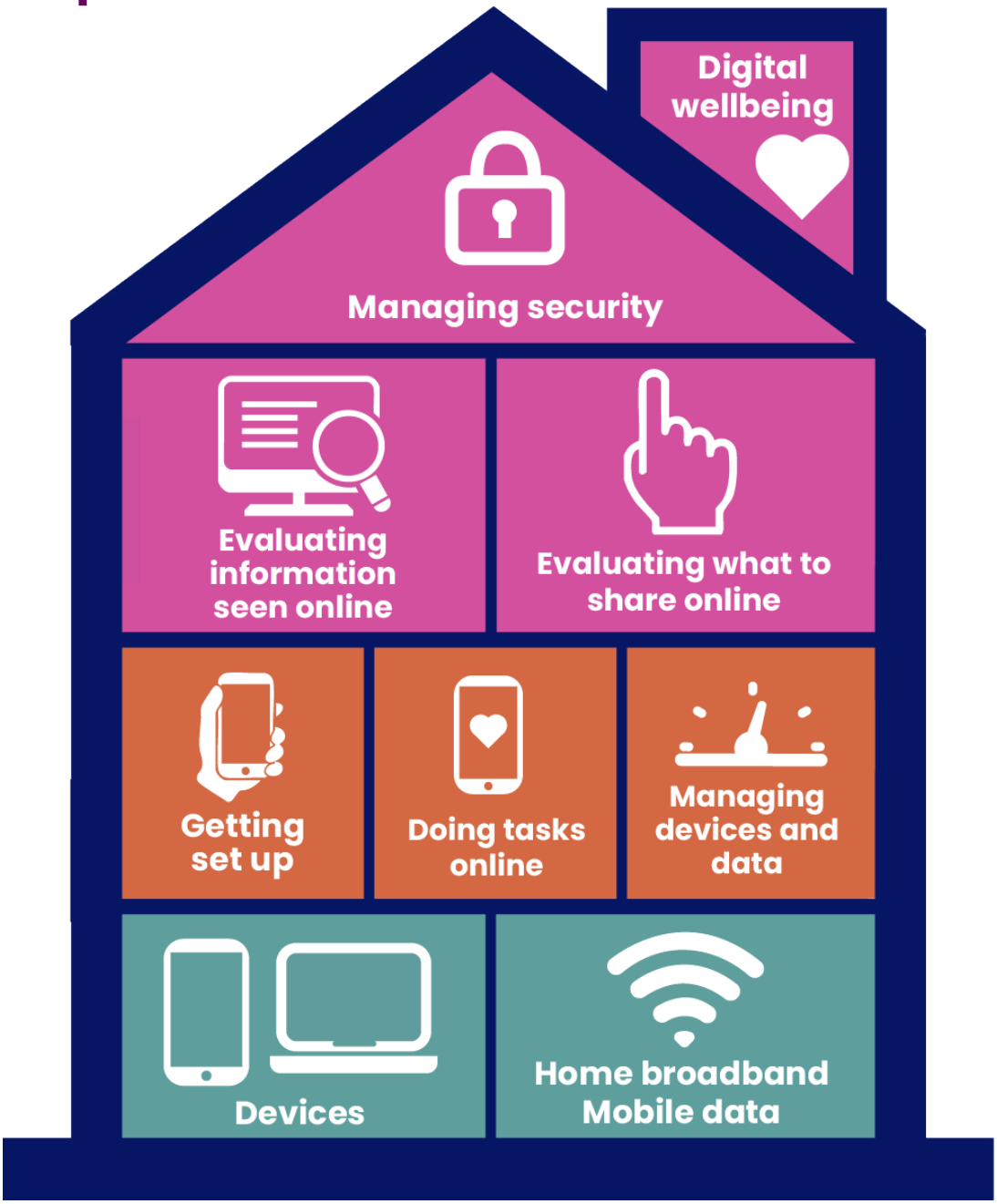
A Minimum Digital Living Standard for UK Households in 2025:
Full report



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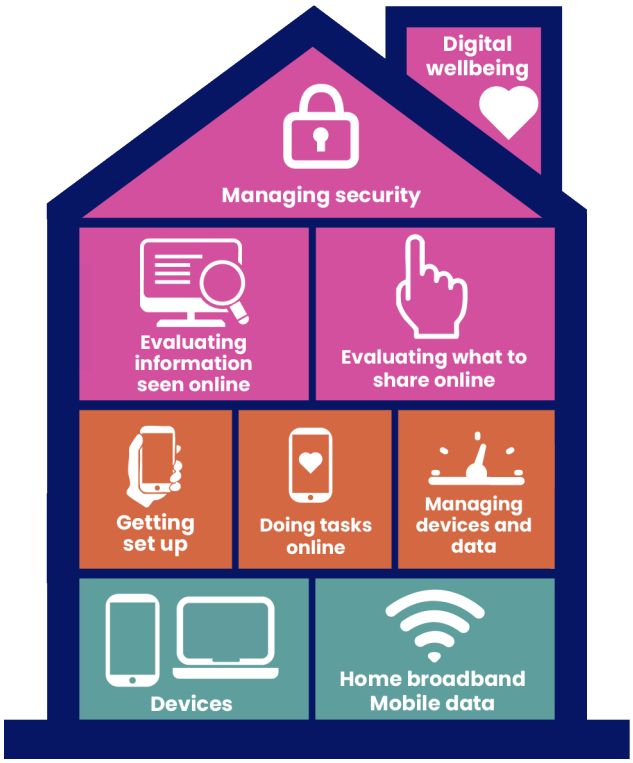
Executive Summary

The Minimum Digital Living Standard (MDLS) is a benchmark, developed with members of the public, for what households need to be digitally included.

We now have a single MDLS, developed through a series of deliberative discussion groups with working-age and pension-age households, as well as households with children, in urban and rural areas. Grounded in people's lives, MDLS helps us focus on the holistic nature of digital inclusion and how we can work together to achieve this.

What is the Minimum Digital Living Standard definition?

A minimum digital living standard includes having 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.



MDLS is a minimum that reflects everyday norms in a digital society. It is:

- **Bottom-up:** developed by members of the public
- **Holistic:** covering goods and services, and knowledge and skills
- **Household:** in contrast to most measures which focus on individuals
- **A starting point,** as some households may have additional needs
- A **reflection of our digital society** in the UK today.

MDLS is not only for government. Digital inclusion is a shared responsibility.

What is the core set of Minimum Digital Living Standard 'contents'?

The table below sets out the core MDLS 'contents' common across household types. A detailed version, including additional needs, is provided in Chapter 3.

Digital goods and services	
Home broadband	• With sufficient reliability and speed to support all household members to access the internet at the same time *OR unlimited mobile data in place of home broadband*
Mobile phone and mobile data	• One entry-level smart phone per adult • 5GB to 15GB per month mobile data for all household members with their own mobile phone *OR unlimited mobile data in place of home broadband*
Large screen device	• One large screen device (laptop, tablet or PC) per household
Television and viewing	• One TV (or TV-capable large-screen device) per household • TV licence or entry-level TV subscription service per household
Functional knowledge and skills	
Getting set up (devices and connection)	• Using device functions • Connecting to the internet • Changing settings and navigating options
Doing tasks and activities online	• Internet searching • Using apps and programmes • Completing online forms • Sending and receiving emails • Making online payments
Managing and maintaining (devices and connection)	• Monitoring and maintaining device storage • Managing and monitoring mobile data
Critical knowledge and skills	
Managing security	• Using secure passwords • Evaluating connection security • Making safe payments
Evaluating information seen online	• Identifying and avoiding scams • Assessing information quality and credibility • Customising, blocking and reporting accounts and content
Evaluating what to share online	• Protecting personal information • Assessing online identities and friend requests • Considering digital footprint
Thinking about digital wellbeing	• Managing time spent online • Managing social expectations and pressures • Practicing empathy online

What are the main differences between household types?

This report presents the views and experiences of members of the public - their reasons for deciding what households need to 'connect, communicate and engage with opportunities safely and with confidence'.

Views coalesced around core MDLS needs, while also noting variations, such as:

- Households with children have the most needs overall, both for skills, and for devices and connectivity (which are also shaped by household size).
- Pension-age groups felt smartphones were essential for out and about; working-age groups saw it as the go-to device in and out of the home.
- Pension-age groups added an option of a landline in areas with poor mobile coverage, particularly with a risk of power cuts. Concern and confusion emerged about the switchover of phone lines to digital.
- Ability to change settings (e.g. font size) was most salient in pension-age groups but also identified as important for all groups.
- Ability to use parental controls was a need in households with children.
- Access to online gaming was important for children's social inclusion and friendships. Extra kit may not be needed but it can put more demand on devices and connection, and requires skills like evaluating friend requests.
- Young people identified four stages of digital use over time which shape their needs for skills: accessing devices; using online multiplayer games; getting a first mobile phone; and later use as children go through school, do homework online, socialise online, and travel independently.

What shapes a household's ability to meet the MDLS?

Households will vary widely in their ability to meet MDLS needs, depending on financial circumstances, local infrastructure, and access to support. Other circumstances (such as disability or health conditions, housing situation) will also influence both households' needs, and their ability to meet needs.

In a face-to-face UK survey of 1,582 households with children, over 4 in 10 (45%) were below the MDLS benchmark (MDLS 2024). This correlated with factors closely linked to child poverty, such as having a low income; being a lone parent and/or larger household; living in a deprived area.

How 'future proof' is the MDLS?

MDLS reflects everyday life and society today. Given the pace of technological change, MDLS would benefit from being updated regularly to stay relevant and reflect technological shifts which impact everyday lives and services.

What did MDLS groups say about...

Affordability?

Across MDLS groups, people expressed concerns about affordability, value for money, and costs. Meeting the MDLS is not a one-time expense but an ongoing financial commitment - for example, the need for household devices to be in working order, secure, and compatible with software used in online services. Households with children face increased costs as children age and require their own phones and data plans.

Infrastructure?

Issues with broadband provision and mobile data connections were key themes in the rural MDLS groups, and in some urban MDLS groups. This had implications for ability to meet MDLS, the balance between mobile and broadband provision (relying more on one if the other was inadequate), and costs. Rural groups also talked about limited choice and paying more for workarounds (like satellite).

Safety?

Digital safety and well-being of households were significant themes for all ages. Experiences varied (e.g. use of online banking, public WiFi) but it was agreed that everyone needs to be aware of device and internet security, and the use of information to spread false information or assist scams. Rapid changes, such as the expansion of AI, meant this was an ongoing process.

Confidence?

MDLS groups frequently raised confidence as an issue in relation to skills. They felt a certain degree of self-confidence in one's ability to carry out tasks online and recover from mistakes (a 'trial and error' approach) was needed. Groups also discussed the challenges of keeping up with technology, and constant change as a source of fear or pressure.

Learning skills?

MDLS groups felt the main ways to gain skills and confidence were: independent learning, getting help from friends and family, through work or school. They felt that while couples can support each other, each individual needs their own skills, especially for security and to protect yourself online 'in the moment'. Trusted organisations (such as councils, libraries, community organisations) were seen as important sources of support. Groups discussed inconsistency in quality, availability, and funding of formal support, and more limited support for working-age adults compared to other groups.

Implications for policy makers and service providers

Digital inclusion is a shared responsibility. MDLS enables policy makers, service providers, and wider stakeholders to have a shared understanding of what households need to feel digitally included. This can be used to guide digital inclusion policies, provision, and partnership working. Building on how the MDLS has already been used, we set out some suggestions below.

Opportunities for any organisation

- Organisations can use the MDLS to support partnership working based on a shared understanding of what households need to feel digitally included; and to consider which households (using their services or in their locality) may fall below the MDLS, and what they can do to support them.

Opportunities for the UK Government

The 2025 MDLS research can inform future actions, following the Government's Digital Inclusion Action Plan: First Steps, the new Interministerial Group for Digital Inclusion, and a new Digital Inclusion Action Committee. Suggestions (reflecting the four focus areas identified by the UK Government) include:

- 'Opening up opportunities through skills': Department for Education can use MDLS to refresh the Essential Digital Skills framework for adults so that it reflects public perspectives on what is necessary to feel digitally included.
- 'Tackling data and device poverty': Department for Science, Innovation, and Technology, and the Department for Work and Pensions, can use MDLS to inform and enhance the government's role in reducing affordability barriers. This should take into account both broadband and mobile data.
- 'Breaking down barriers to digital services': Government Digital Services (DSIT), DWP, HMRC, Home Office, and others can use the MDLS to inform and guide user research and user-centred design of online government services.
- 'Building confidence and supporting local delivery': Department for Science, Innovation and Technology can promote holistic approaches to household needs through future funds and evaluation frameworks, and champion funding for local support with digital skills and confidence.

Opportunities for governments in the devolved nations

- Welsh Government has used Welsh MDLS to inform digital inclusion policy, and social housing pilots. It has an opportunity to promote use of Welsh MDLS in planned future grant funding for local approaches to digital inclusion.
- Scottish Government has an opportunity to use the Scottish MDLS research and 2024 UK survey findings to raise awareness of links with child poverty.
- Northern Ireland Executive has the opportunity to draw from insights gained at devolved and UK levels to inform strategies and plans.

Opportunities for regional and local government

- Local and combined authorities can use MDLS to catalyse engagement with policy and delivery teams across and within councils, such as skills and jobs, tackling poverty, reducing health inequalities, and reforming council services.
- Local authorities can use MDLS to inform local use of devolved budgets, such as adult skills funds, and discretionary crisis support for households, in ways that enable households below the MDLS to build skills and stay connected.

Opportunities for the regulator and the telecoms industry

- Ofcom, Ofcom Communications Consumer Panel, and telecoms industry can use MDLS to inform and improve approaches to 'essential', 'enough', 'affordable', and 'accessible' internet access; for example, social tariffs.
- Ofcom can use the MDLS to inform its ongoing work on online safety and digital media literacy, working with others to develop a coherent framework for digital skills and knowledge, including critical thinking.

Opportunities for organisations delivering services

MDLS is relevant to any statutory, voluntary, or commercial service provider with online services, where customers or clients may be in households below MDLS.

- Service providers can use MDLS to assess and reduce likely barriers faced by customers or clients in households below MDLS. This includes identifying how these intersect with existing duties around equality, fairness, and customer vulnerability; and how to enhance design and support to use online services.

1 Introduction

This report presents findings from new Minimum Digital Living Standard (MDLS) research that examines the digital needs of UK households to answer the question:

"What is the minimum basket of digital goods, services, and skills that households need to live and participate in the digital world?"

In March 2024, we published the full results of our initial project to define a UK Minimum Digital Living Standard (MDLS) for Households with Children (Yates et al., 2024). It addressed this question through a novel household-based assessment of digital need, drawing on the Minimum Income Standard (MIS) methodology (Davis et al., 2024), as described in Chapter 2. Following the MIS approach, we conducted an extensive series of deliberative focus groups with members of the public to establish the MDLS. This began with establishing a definition of what an MDLS should encompass.

Drawing on this definition, the study aimed to determine what the public identified as digital needs and how to address them. As the project was initially a 'proof of concept' study, we began with one household type – households with dependent-age children – and established a 'minimum basket of digital goods, services, and skills' that families require to meet this standard. The full details are available at https://mdls.org.uk.

The MDLS research is unique in developing a national benchmark for what households need at a basic level to engage and participate in a digital world. It is bottom-up (defined by members of the public), holistic (digital goods and services, practical skills, and critical understanding are all needed in combination), and set at a household level (in contrast to existing measures of digital inequality, which focus on individuals). It has made a significant and innovative contribution to how digital inclusion is conceptualised as well as how it can be measured.

MDLS Definition

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

1.1 New research – a broader range of household types

We have expanded our initial research on households with children by conducting a further series of focus groups to extend MDLS to a broader range of household types. This report presents new MDLS research conducted in 2024/2025 that covers:

- The digital needs of households without children covering working-age and retirement-age single and couple households.
- A review of the needs of households with children to capture any changes, given that the initial groups occurred in 2022.
- A verification of the MDLS for households living in rural as well as urban areas.

1.2 MDLS and policy – Wales, Scotland, and UK

Since the initial study, MDLS has gained traction, with continued interest and support across academic, policy, and practice contexts. We hope that the complete picture of household digital needs and what is required to meet them, presented in this report, will provide further benefits and the use of MDLS to inform digital inclusion policy, provision, and partnership working. We have separately reported on the use and relevance of the MDLS in Wales and Scotland, with research for the Welsh Government (Yates et al., 2023; Harris et al., 2023) and the Scottish Government (Blackwell et al., 2025). As a team, we have continued our engagement with government, regional, public, and third-sector organisations to explore MDLS as a tool to inform policy development. The UK government now has a UK-wide Digital Inclusion Action Plan (DSIT, 2025) that both cites the MDLS and draws upon a range of research work by the team over the last decade.

The ongoing MDLS engagement work, and fieldwork for the Welsh and Scottish projects, has involved focus groups with members of the public and in-depth interviews with families alongside group consultations and interviews with stakeholders (e.g., individuals and representatives from local and national public, private, and third-sector organisations) to explore the relevance of the standard in relation to key dimensions of lived experience and intersectionality, such as disability, ethnicity, rurality, and poverty.

The current UK Digital Inclusion Action Plan, along with the digital inclusion strategies of the Welsh and Scottish governments and those of local and regional authorities, either directly utilises MDLS or has adopted a more holistic approach that extends beyond basic access and skills. We would also note the alignment of the MDLS with the broader Sustainable Development Goals (SDGs). The pursuit of MDLS not only advances digital inclusion within the UK but also resonates with global commitments to reduce inequalities (SDG 10), ensure quality education (SDG 4), and promote inclusive societies for sustainable development (SDG 16).

1.3 Why MDLS is needed – a quick recap

Our prior work has detailed the reasons for the MDLS at greater length. For completeness, we will briefly restate them here. The MDLS project examines an ongoing social issue that is now a key part of UK national, devolved, and regional government policy interventions: the risks and realities of digital exclusion. The scale and significance of digital systems and media in everyday life have never been more apparent. Hard practical barriers, such as a lack of infrastructure (e.g., broadband availability to households), are diminishing, and more individuals are gaining basic access to digital services (for example, through smartphone-only access). However, substantial survey work indicates that significant issues of access and inequalities in use and skills persist across the UK (see: Yates and Carmi, 2024; Yates et al, 2020; Lloyds, 2024). Our MDLS report on households with children found that 45% of those households fell below the standard (Yates et al., 2024). Key issues of poverty, household composition (e.g., being a single parent), and location significantly influence the ability to meet the standard.

Consequently, digital inequalities between those with access to digital devices and data, along with the skills and capabilities to use them, and those without, have never been more significant. The current government's goal of increasing the use of digital tools in public and health service delivery, means that households are under pressure to obtain or enhance their digital access and skills. As our work in Wales and Scotland found, this pressure, alongside the cost of living crisis, places additional financial strain on households and forces individuals to make difficult decisions about which bills to pay; those on the lowest incomes are at an even greater risk of being digitally excluded. As our recent work on digital skills and literacies found, it also increases the demands on individuals and households to possess the necessary practical (functional) and online safety (critical) skills to be active online (D'Arcy et al., 2024; Polizzi et al., 2025).

A complex interplay exists between levels and types of social and digital inequalities. Prior policy often focused on digital access (broadband) and predominantly defined digital 'exclusion' in terms of material access to technologies. Many previous academic studies have examined individuals' access and skills, as do many measures used by policymakers in the UK and globally. Therefore, there is a significant need for a deeper understanding and robust measures to guide interventions. This must build on an in-depth assessment of what individuals, households, and communities require to be digitally included. This was the goal of the MDLS project, and the new research presented in this report provides a more complete picture of a MDLS across household types.

To date, most academic and policy research on digital inequalities has focused on three issues: first, inequalities in material access to digital devices and internet connections; second, differences in digital skills; and third, differences in digital usage. These can relate to socio-economic variations and the personal and economic resources that individuals have available to them (Hargittai, 2001; Helsper, 2012; Van Deursen et al., 2014; Yates and Lockley, 2018; Yates et al., 2015; Yates and Lockley, 2020; Lloyds,2024). However, this predominantly survey-based research effectively adopts a 'top-down' approach to assessing digital inequalities, inclusion, or exclusion. It originates from a policy or theoretical position rather than citizens' perceptions of needs.

The MDLS advances research and policy discussions by moving beyond simple individualised measures of access or skills. It adopts a bottom-up, citizen- and household-focused approach to understanding digital inclusion, exclusion, and inequalities. By utilising the MIS methodology (see Chapter 2) to develop MDLS, we drew directly on the lived experiences of citizens while situating the measure at the household level. This enabled us to:

- Understand digital exclusion as the product of a mix of factors (access to goods, services, skills, and knowledge) that limit citizens' and households' digital opportunities and participation.
- Understand digital inequalities as complex, relative to time and social context, and deeply linked to other aspects of social inequality.
- Understand which digital inclusion policies and interventions do or might best address the factors and contexts that limit citizens' and households' digital capabilities.

1.4 MDLS parameters

MDLS serves as a benchmark for outlining the digital needs of households. It also serves as a starting point, as various household circumstances and situations can influence their needs and their ability to address both digital and other requirements. The initial MDLS research included interviews with households and consultations with stakeholder organisations, examining where individuals may have additional or different digital needs, particularly in relation to disability, as well as the challenges faced in achieving MDLS. These challenges include affordability, housing, location and infrastructure, acquiring skills, and accessing support (see: Yates et al, 2024).

It is important to note that the extent and type of digital engagement can vary according to individual needs, situations, and preferences. We acknowledge that people may be more or less interested in digital life and that there are debates surrounding the benefits and drawbacks of children's digital access. However, in the current UK context, participants in this research agreed that some form of digital engagement is necessary to access services and participate in the world around you 'whether you like it or not'. As such, MDLS provides a meaningful basis from which to consider the range of goods, services, knowledge, and skills that people need to be digitally included.

1.5 Explainer video

To provide a quick overview of the MDLS and its methodology, we have developed a short explainer video that can be found here:

- English language version: https://www.youtube.com/watch?v=qWnpao-sfWk
- Welsh language version: https://vimeo.com/1075671309/56d36741d4?share=copy

1.6 A note on AI

Artificial Intelligence (AI) was raised as an issue by participants during our focus group discussions and highlighted in the report. AI serves as an example of the changing context and the awareness participants had that this will entail new skills, both functional and critical. These skills will likely include ways to access AI systems and services, essential AI skills and literacies (e.g., 'prompt engineering'), and understanding organisations' use of AI systems. The impact of this changing context on aspects of digital inequality remains unclear, particularly from the perspective of our research participants and UK households. Future AI developments may alter the requirements for devices and services and change the mix of digital skills needed moving forward. Participants have noted the initial implications of such changes, which are presented in the report. We believe that device and functional needs will become clearer and more articulated as AI becomes more mainstream. However, we would argue that understanding AI and its applications is already crucial for a critical understanding of contemporary digital society.

1.7 Report structure

This report presents findings from the qualitative components of the new MDLS research regarding households without children, updates MDLS for households with children, and includes households living in both rural and urban areas. Unlike the 2024 MDLS report, we have not yet conducted a national survey; therefore, we do not present statistical and geospatial findings here.

Chapter 2 outlines the MDLS approach and its application in extending the project from the initial study to the development of the current, more comprehensive MDLS research.

Chapter 3 presents the 'contents' of MDLS across households. This includes the range of devices, connection and functional knowledge and skills, as well as critical understanding that groups indicated households need to meet the MDLS definition.

Chapter 4 examines the factors that influence how people meet MDLS, including the support they may need and the challenges they face. These factors include skills development and support, financial resources and considerations, and infrastructure-related issues.

Chapter 5 brings together findings to discuss variance in digital needs, and what can affect meeting those needs, across and within household types including those in rural communities. It also covers changes in the needs of households with children since the initial MDLS research.

A concluding chapter considers the findings alongside policy implications and recommendations.

2 Method

This chapter outlines the rationale behind the development of the MDLS, explains how the approach has been applied to extend the project from the initial 'proof of concept' study on the needs of households with children, and describes the methodology used in the current MDLS research, which covers a broader range of households.

2.1 Approach: Building MDLS on the MIS methodology

MDLS draws on the Minimum Income Standard (MIS) methodology (Davis et al., 2024; for full details on the MIS methodology, see: https://www.lboro.ac.uk/research/crsp/minimum-income-standard/). Key aspects of the MIS approach that were adopted for the development of MDLS are:

- The method involves bringing together members of the public in a series of deliberative focus groups. In these groups, participants make decisions and build consensus about needs and how to meet them. The method emphasises the public's opinion of "need "informed by the lived experiences of individuals and households in a society.
- It works towards defining a minimum ***socially acceptable*** standard of living (Davis et al., 2024). It is about "needs", not "wants", but more than the "bare minimum" needed for survival, as it must enable people to connect with others and participate in the world around them.

Echoing the roots of MIS, our approach to establishing MDLS focuses on the public's perspective of what is needed 'digitally' to participate in UK society. As such, MDLS establishes a 'digital participation benchmark' of goods, services, and skills that individuals and households need to participate in ***ordinary living patterns, customs, and activities in the UK.***

2.2 Developing the initial UK MDLS

The initial UK MDLS research took place in 2022 and focused on households with children to pilot the feasibility of developing a digital living standard. However, during the initial research stage, participants established a definition designed to be applicable across household types. This involved five focus groups covering a broad range of households, including pensioners, working-age people without dependent children, and parents and young people.

This definition is at the core of all MDLS research and central to focus group deliberations about what people need to be digitally included in contemporary UK society. It provides a shared understanding to be used when discussing what is required in order to meet the "standard."

A minimum digital standard of living includes having 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.

When developing the MDLS definition, groups emphasised that it should be multifaceted, highlighting that digital inclusion requires a combination of devices and connectivity, as well as skills and knowledge – not only for using technology effectively but also to do so safely and confidently. People also agreed that the MDLS definition must be holistic, meaning that household needs must be addressed across all areas of the definition and that devices and connections should be adequate and fit for purpose. All these components were seen as essential for enabling a household to participate in society and culture, connect with others, access services, and engage with opportunities, such as in education or work.

Based on the definition, a further series of twelve deliberative groups with parents of children of various ages and with young people were conducted. Through an iterative process, these groups developed and refined lists of the types of goods, services, and skills that households with children would need to meet the MDLS definition. This resulted in the UK MDLS for households with children. A complete outline of the MDLS research approach, initial research methodology, and detailed contents for households with children can be found in Blackwell et al. (2023).

As outlined above, the MDLS research initially focused on one household type, selecting households with dependent-age children in the context of a) the importance of digital inclusion for families, children's engagement with education/school, and social interactions with their peers, and b) being methodologically the most challenging household type due to the need to identify differences in the requirements for goods, services, skills, and understanding among children at various school stages, as well as adults/parents.

The initial research enabled us to establish that the methodology could be applied to digital needs, that the MDLS approach provides a meaningful and accessible definition of a socially acceptable standard of digital living, and that members of the public can agree on what is needed for that to be achieved. The next steps involved extending the MDLS research to other household types and entailed new research to examine the needs of households across ages without children, a review of households with children in order to revisit, refine, and capture any changes, and included groups with households in rural areas.

2.3 Extending MDLS to other households

The MDLS extension research follows the same approach as the initial study outlined above. It included a total of twelve deliberative focus groups that took place between October 2024 and March 2025. This comprised:

- 6 groups for households without children – 3 with working age, and 3 with pension-age participants (new MDLS household types).
- 2 groups with parents of dependent age children and 1 group with young people (for the review of MDLS for households with children).
- 3 groups with participants living in rural areas – with working-age and pension-age households without children and parents of dependent-aged children (to consider digital needs and issues in a rural context).

2.3.1 Group composition

The initial nine groups (focused on new household types and the review of households with children) all comprised nine to ten participants and were conducted in person, primarily in urban (mainly city) locations. The three groups covering rural areas were conducted online and each included seven or eight participants (these are discussed in more detail below). The urban in-person groups took place in locations covering England, Scotland, Wales, and Northern Ireland, and the online rural groups included participants from across all these areas of the UK. All comprised newly recruited individuals (i.e., participants contribute to only one group in the process).

Overall, 111 participants took part in the research. The groups consisted of a diverse mix of participants across genders, including both single and couple households, as we were interested in both household and individual needs, along with a variety of socio-economic backgrounds. Most groups also included participants from minority ethnic backgrounds. Parents of dependent children had between one and four children living at home, encompassing pre-school, primary, and secondary school-age children. This was essential to discussions, as the digital needs of children vary by age. Participants in the young person group were aged 13 and 14.

2.3.2 Age or life stage

The participants in the groups of households without children ranged in age from 18 to 88. However, separate groups were held with individuals of 'working age' and 'pension age.' This division draws on the MIS approach of examining the needs of different age household types, and reflects the common assumption that digital needs will vary over the life course. In the context of the MDLS, this ensured that we could elicit perspectives across various age groups and facilitated discussions focused on specific issues related to age or life stage. Nevertheless, we found considerable overlap in needs across age ranges. While some aspects of digital engagement were more relevant to older or younger participants, there were also differences within working-age and pension-age groups (as reported in the following chapters). This division aided in the organisation of the groups, but it was not deemed definitive regarding the role of age in determining digital needs. Discussions on how to address digital needs are more closely related to life stages than to clear distinctions between working-age and pension-age categories, reflecting the diversity within both populations. Therefore, the findings in the following chapter refer to discussions within the working-age and pension-age groups, rather than attempting to translate these into separate or distinct MDLS findings for the two age groups.

2.3.3 Conducting the groups

As with our initial MDLS method, these groups were conducted in three phases with findings and decisions from one stage carried forward to the next to review, build on, and refine the lists of items, knowledge, and skills included in MDLS for each household type or life stage. The researchers presented the MDLS definition at the beginning of each group as a foundation for discussions about what is needed. A hypothetical example household is used so that, rather than participants focusing on their own needs, they are asked to decide how the needs of someone in a household similar to theirs would be met. For the MDLS for households without children, groups started from scratch, with participants asked to propose the range of devices, types of connections, and knowledge and skills they thought someone would need to meet the MDLS definition. In reviewing households with children, researchers also drew on the initial MDLS for families with children to inform their discussions.

The discussions were based on the assumption that the households under consideration are in reasonably good health. This recognises that health conditions or disabilities can significantly affect people's needs and require separate consideration. For groups with older individuals, we clarify that this would account for general ageing, such as deterioration in vision or dexterity, rather than specific chronic or acute medical or disability-related needs.

2.3.4 The rural context

The three online groups with participants in rural locations followed the nine initial in-person groups, where we established a core set of needs and MDLS contents based on discussions in urban areas. Separate groups were conducted online with working-age and pension-age households without children, as well as parents of dependent-aged children. The rural groups enabled us to review what previous groups had included and discuss any specific differences or considerations for people living in rural communities regarding their digital needs and the challenges they may face in meeting MDLS.

The decision to hold rural groups online was made to enable broad geographic coverage, as it was essential to include individuals living in more remote areas, for whom gathering for an in-person group would be challenging. While it may seem counterintuitive given the known difficulties of online access in rural communities, this approach allowed participants to join from all over England, Wales, Northern Ireland, and from the North of Scotland to Devon. All participants in these groups lived in a village, hamlet or isolated dwelling[1]. In this instance, we also wanted to include people with experience of digital engagement who could effectively discuss the issues faced by individuals in obtaining sufficient online access in rural situations.

[1]The rural-urban classification varies across the UK nations, but by including people who described their location as a village, hamlet or isolated dwelling, rather than a town, we anticipate that participants fell within the category of rural settlement in their local context.

2.3.5 Analysis and consultation

All the focus groups were digitally recorded and transcribed to enable thematic analysis of, and reflection on, the discussions that informed the decisions. The resulting list of goods, services, knowledge, and skills was compiled and organised into categories, which make up the contents of MDLS for households outlined in Chapter 3.

The research team conducted a series of online seminars with stakeholders (e.g., individuals and representatives from local and national public, private, and third-sector organisations) to share emerging findings and inform the reporting. A Project Advisory Group was also consulted at the outset of the study regarding the research plans and design, and again in the latter stage to discuss these emerging findings.

2.4 Ethics

The project received complete ethical clearance from the Loughborough University ethics committee. Participants were given information about the project—its purpose and what was involved in taking part—and were made aware of their right to withdraw at any time. All details were kept confidential, and any quotations in the report were anonymised. Adult participants were recruited through a professional research recruitment organisation, which included some local face-to-face recruitment for the in-person pension-age groups.

The in-person groups were held in accessible venues, and comprehensive joining instructions and offers of support were provided for those participating in the online groups. The group of young people was recruited through a secondary school and met during the school day. Separate research information sheets were specifically designed for young people and their parents/guardians, and consent/assent forms were signed in advance by both parents/guardians and the students themselves.

3 What UK Households Need for a Minimum Digital Living Standard

This chapter outlines what the groups stated that households need to achieve a minimum digital living standard, enabling their inclusion in the digital world around them. Reflecting the MDLS definition, this includes a range of digital goods and services, an internet connection, and the necessary knowledge and skills. This encompasses both functional and practical abilities for engaging online and performing tasks and activities, as well as critical skills for understanding and managing digital risks. Crucially, these elements are all needed in combination, with a holistic approach to digital inclusion being a central and distinctive feature of MDLS. There was broad agreement among groups on the key components required for a minimum digital living standard. The MDLS contents are therefore presented thematically as a core set of goods, services, knowledge, and skills relevant across households. Within this framework, we outline particular needs or considerations that relate to different life stages (for adults as well as families with dependent children) and for those living in rural areas. MDLS sets out what meets households' digital needs, with peoples' different circumstances affecting their needs, and means of meeting them (see also Chapter 4). It is also worth reiterating that MDLS is not a 'bare minimum' to 'just survive', but rather what households deem as necessary for engagement and participation in a digital UK.

3.1 Digital Goods and Services

3.1.1 Mobile phone

- **An entry-level smartphone per adult, and for children when they travel and socialise independently.**

Across all households, every adult needs their own smartphone. All groups agreed that a smartphone is increasingly essential for daily life and discussed its wide range of uses, from communication to accessing services, banking, information, navigation, and entertainment. Reflecting on their extensive use, some participants could not imagine life without one. The need for a smartphone extends beyond convenience, as participants discussed their dependency on devices due to the lack of offline alternatives. They mentioned decreased in-person services, the use of two-factor authentication, cashless payments, QR codes, and apps to access or order items, noting the potential for financial disadvantage without mobile access.

> *Woman: If you were to say, oh we're going to take your smartphone, you can just have a basic phone … I think I would feel like the world had fallen apart, I know that is probably quite sad really, but I do everything on my phone….*
>
> *Man 1: … All the banks are now shut so you have got to do all of your banking online and do that on your smartphone. And you buy your train tickets, and you have them on your phone now, you show them…*
>
> *Man 2: … If you hadn't got the apps for the shopping whether it be Tesco, Lidl or whatever then you're missing out on all the bonus things in the shops, you know it will cost you a lot of money not to have a mobile phone…*
>
> *Woman: … Even if you go to some restaurants, like some pubs and stuff, you have to order online on your phone… I think to some extent you are discriminating from people that aren't as good with their phone and technology.*
>
> *(Working-age group, Sheffield)*

Participants in the pension-age groups tended to discuss the need for a smartphone, particularly when out and about. For example, they noted the value of Google Maps, the camera, and being able to get help in an emergency, including via the emergency contact feature on a smartphone.

> *I will bet all of these have got an emergency number, because you just press that and it rings whoever you have pre put it in to ring, if you fell over or something.*
>
> *(Pension-age group, Leicester)*

Parents and young people felt that a child would need their own phone when they start travelling and socialising on their own. This relates primarily to safety, as children become independent, particularly when making their own way to school. Parents mentioned it was reassuring to be able to keep in touch with a child, knowing that they could contact them and vice versa. Parents in rural areas noted a potentially increased need, as children often have a longer journey to school, are more likely to rely on bus travel, and need to communicate with parents for lifts. Having a smartphone enabled parents to use location apps to see where children were, which provided peace of mind.

> *Man 1: My son had one in year five because he started cycling to school and then my daughter finished primary school last year, so she has his because we encouraged her to walk to school and to give her that independence… And we could keep tabs on where she was and make sure she was safe and got to school properly…*
>
> *Woman: … It is quite nice to see where they are, especially when you can't get hold of them. … I use the Find My iPhone, and we have got like a family sharing account where I can see where he is.*
>
> *Man 1: I have Life 360.*
>
> *Man 2: Yes and me, that is good.*
>
> *(Parent group, Bristol)*

Young people and parents discussed how phone usage evolves as children grow older, becoming increasingly important for young people's daily activities and social inclusion. Young people explained how their engagement with social media apps develops during secondary school, as these apps can be a key means of interacting with others and staying informed about events in their peer groups. As children age and gain access to their own finances, they can use their phones to make payments—young people we spoke to stated that this is preferable to carrying a card or cash.

> *Girl 1: I think it gets a little bit more in secondary when everyone starts getting snapchat.*
>
> *Girl 2: Otherwise, you're just going to feel like you're left out, like behind if you're not like doing the same stuff that everyone else is doing on their phones.*
>
> *Girl 3: It is more of a social thing because it is like another way of communicating that you would miss out on if you didn't have one and can make people kind of feel disconnected.*
>
> *Researcher: When does that need for connection and socialising occur? So, say for example if somebody got their phone in year 5/6, is it instant or does that develop over time?*
>
> *Girl 1: I got my phone in year five I think and up to secondary I didn't really have a lot of apps, I think I only had You Tube and WhatsApp or something and then as soon as I got to secondary I saw that everyone has got snapchat so I remember that is how I got snapchat because everyone else had snapchat. So, I think it is just like at secondary people just start to have a lot more apps.*
>
> *(Young person group)*

All groups agreed that an entry-level smartphone would meet someone's needs, as long as it has sufficient capacity to support the necessary apps, a reasonable camera, 4G connectivity, and adequate storage. Parents and young people observed that children often started with older devices passed down from their parents. Mobile data requirements are discussed below.

3.1.2 Landline phone

- **The option of a landline for older households in areas with poor mobile coverage.**

While the smartphone was generally viewed as an all-encompassing device for both home and away, some participants in pension-age groups also expressed the need for a landline phone at home. This was due to a desire not to rely entirely on a mobile phone indoors, and to provide an alternative in areas with poor mobile coverage.

> *I live in a village in a valley and the mobile phone signal drops in and out … most of the people I know older people, they all use their landlines and yet it seems to be a dying thing, but I would be lost without my landline.*
>
> *(Pension-age, rural group)*

A relevant point here is that the UK is transitioning from 'copper' analogue phone lines (Public Switched Telephone Network (PSTN)) to a digital 'broadband' Integrated Services Digital Network (ISDN). This switchover from PSTN to ISDN is complex and has raised concerns for many telecommunications customers, altering the way services are provided. This concern is reflected in our findings. There was a mix of views among the urban groups, with some expressing apprehension while others had switched to broadband without problems. However, this was particularly concerning for participants in the pension-age rural group, who, in addition to unreliable mobile provision, noted the greater likelihood of power cuts in some areas and the risk of being left without access to a phone.

> *Man 1: We have got a landline as well, and it is absolutely vital, if the electricity goes down, the landline is the only way of being in touch with for example even emergency services, but the landlines are due to be discontinued at the end of next year.*
>
> *Man 2: We have regular power cuts and then obviously the broadband goes down and the mobile goes down as well because the mobile mast nearest to us is on the same network as us for the electricity. So without the unpinning of a really good power network we are often left in a situation where actually we're completely disconnected, despite the fact that our broadband is great, so that is a rural issue for some people.*
>
> *(Pension-age, rural group)*

There was mixed knowledge and some confusion surrounding the digital switchover among pension-age groups, highlighting the need for better public information leading up to the transition from the analogue network, particularly regarding backup options in case of power loss (Digital Communities APPG, 2025). We want to emphasise that this need is driven by issues such as poor mobile signal and the usability of ISDN/broadband replacements for landline services. We expect that, at some point in the future, these issues, concerns, and needs may change once the switchover is complete and services are deemed reliable. However, at this point, households have highlighted a key current need.

3.1.3 Large screen device (laptop, tablet or PC)

- **One large screen device (laptop, tablet, or PC) per household.**
- **Households with children – parent(s) and their first child share one device, with an additional device for each further school-age child.**

Groups agreed that households need a large-screen device. As with our previous MDLS, the term 'large-screen device' encompasses a laptop, tablet, or desktop PC, reflecting households' different needs or preferences. Participants agreed that this should be an entry-level or near-entry-level device chosen to meet a household's MDLS needs for access to the services detailed below (e.g., including TV, and gaming where needed). This device should be viewed separately from devices required for work and/or provided by an employer[2].

Although some people, particularly younger working-age participants, described using their smartphones for almost everything, there was consensus across groups that a large-screen device allowed for easier and more efficient execution of certain functions. This included 'serious tasks' such as applying for jobs, managing household admin, engaging in voluntary roles, and storing documents and photos. These tasks can involve handling large amounts of text, completing and signing forms, managing various file formats, and navigating documents or windows. For example, groups mentioned PDFs and Microsoft Word as common file types that are easier to view and edit on a large-screen device compared to a mobile phone.

Using a phone for these purposes is described as doable. However, it represents a "bare minimum survival mode" (Working-age group, Sheffield) that may put a person at risk of being unable to fully communicate, connect, and engage with opportunities, as outlined in the MDLS definition.

> *Woman: For me just like a PDF document comes through, doing it on your phone is just so hard… doing your CV and things is so much easier on a computer or tablet….*
>
> *Man: It is very hard to fill a form in on your phone because you're scrolling left and right, as well as up and down, trying to find the box that you've missed, you know not filled in and things.*
>
> *(Working-age group, Sheffield)*

> *Man: I did my car insurance last week on a tablet, I wouldn't try that on the phone because you want to make sure you're ticking the right boxes and what have you.*
>
> *Woman: I did exactly the same with mine, I did it on my tablet because you can't see all of the page on your [mobile phone]*
>
> *(Pension-age group, Newport)*

The need for and benefit of enhanced visibility and readability provided by large-screen devices were noted among various groups, particularly older working-age individuals and those of pension age. Additionally, pension-age groups identified dexterity issues as a reason why older individuals might find large-screen devices with keyboards or larger touch surfaces more comfortable to use than mobile phones.

> *For me they need a device that has a default setting for larger characters so that you can actually read the screen. I mean I am struggling at the moment, my laptop suddenly the screen is so small, so I have to write everything in size 14 font so I can read it.*
>
> *(Pension-age group, Leicester)*

[2] We did not specify whether case studies were working or not to avoid narrowing or steering discussions around someone's needs in relation to their job. It was agreed that in terms of household digital needs, if a large screen device or an additional phone is required for work purposes, then the assumption for the discussion group is that a) it should be provided through their employment, and b) a work device may not be available for personal use, or for other household members to access.

One of the issues is 'banana fingers' with the smaller phones …it's very easy to type a wrong letter, very easy.

(Pension-age group, Newport)

For older individuals and those who are less confident using a smartphone, these issues reflect a broader reliance on laptops or tablets at home, including for tasks that some younger users may be happy to perform on their smartphones.

To meet minimum needs, groups included one device per household without children. They believed it was a reasonable expectation that adult couples would share a device, given that they each have their own smartphone. Discussions among older adults revealed that in some households, one partner may be the primary user of the laptop, particularly where the other has less interest or limited access to the device. The implications for digital skills and confidence are discussed in Chapter 4.

Both parents and young people groups agreed on the existing MDLS model of a first school-age child sharing a large screen device with their parent(s) and the need for an additional device for every other school-age child in the household. Parents and young people reiterated the importance of the extra functionality of large-screen devices for school-age children, particularly for homework. Some parents and the young people we spoke to discussed how their schools had provided a tablet, which they used in school and for homework. Having access to their own devices eliminated the need to share, but they were reported to be restricted in what could be accessed, so they would not necessarily replace the need for a device that parents could use more generally, too.

3.1.4 Television and viewing

- **A television (or option of a television-capable large-screen device) per household and**
  - **A TV licence or entry-level TV subscription service for households without children.**
  - **A TV licence in addition to an TV entry-level subscription service for households with children.**

All groups agreed that accessing media, including streamed and terrestrial television programmes, news, and films, was necessary for leisure, relaxation, social participation, and information. However, group decisions varied regarding appropriate ways to view and access television and media content.

Participants discussed various methods of media consumption, including television sets (especially Smart TVs) and the use of other internet-enabled devices. Having a television in the home would fulfil several needs, although its significance varied among different household types. Groups representing households with children emphasised that a television would facilitate family viewing and serve as a source of entertainment for the family.

Woman 1: I like my daughter to stream things so we can watch things together so she is not zoomed in like her whole little world, and we can discuss whatever we're watching, and she can maybe do bits and bobs and just crack on and play with her Lego while she is doing it.

Man: Instead of being totally separate in the same household.

Woman 1: Exactly yes, so it is kind of more bringing us together as a family.

Woman 2: That is exactly what I was going to say, I think it is a social element of your family to be able to sit down watch a movie.

(Parent group, Newcastle)

Working-age groups debated the necessity of a television, revealing differences in opinion. Participants indicated that some individuals may prefer to access media via mobile phones, tablets, or laptops rather than having a television set. Similar to gaming (see below), this would necessitate that the household's large-screen device is capable of streaming TV services.

> *I don't actually have a television. I have got a laptop and I have got a monitor that I plug it in to, so I watch television, I watch films, on there but I access it through my laptop, so I guess I do need entertainment, but it doesn't have to come from the TV anymore.*
>
> *(Working-age group, Glasgow)*

Discussions in this area highlighted potential age variation where viewing choices could relate to life stage. For example, an older person who has been used to having a television in their home, or perhaps a household raising children, is likely to have different preferences and expectations than those who've grown up viewing content on individual devices.

> *Researcher: Do you think there is a difference in whether a television is seen as more important for some people than others?*
>
> *Woman 1: Yes.*
>
> *Researcher: What is behind that do you think?*
>
> *Woman 1: Breaking a habit. Like they are used to it, and we have done it for so long it is hard for people to change when they are just set in their ways.*
>
> *Woman 2: Definitely like you grew up with a TV, there was nothing else.*
>
> *Woman 1: I wouldn't dream of watching a TV shows or anything on a tablet or a laptop,*
>
> *(Working-age group, Belfast)*

While participants acknowledged the content available for free on catch-up, on-demand programmes, or through YouTube, they agreed that households should have access to some form of additional content to provide choice, social engagement, and inclusion. However, it was clear from group discussions that the way people access television content is changing, so additional content could be obtained via a TV licence or a subscription service, depending on preference.

On the one hand, a TV licence was viewed as important by some, particularly older individuals, for accessing live TV, including the news, as well as keeping up with soaps and other current programmes. A few participants regarded the BBC as a 'safe' or trusted content provider, while others voiced scepticism about all mainstream media. It was felt that adults who chose to have a TV licence could achieve a satisfactory level of access to current programmes, films, and news, with the licence covering live content and BBC options, in addition to Freeview channels and apps such as ITVX or Pluto TV. On the other hand, groups argued that people who did not wish to watch live TV or access BBC content would not need a TV licence and would derive more value from a subscription service as entertainment, which was viewed as part of the shift towards more individualised content viewing.

> *I think it changes depending on age group probably, I think someone in their 30's is probably going to need a subscription… because we're talking about inclusion, they probably wouldn't be talking about the same shows so presumably that is not going to be on terrestrial TV … I think that goes in age bandings more than sort of 18 to 60. I think there are situations where it would be a necessity as opposed to a like or a want.*
>
> *(Working-age group, Glasgow)*

For households with children, groups did not alter the inclusion of a TV licence and an entry-level subscription service as set out in the initial MDLS published in 2024. The BBC was

mentioned in relation to younger children's TV and the ability to watch live TV together, including sports. Meanwhile, parents also noted the importance of a subscription service for family viewing and how it helps children feel included in discussions about the latest 'trending' programmes.

> *Mine are teenagers so we very rarely see them but one of the things that we can convince them sometimes is to come down and watch something together….The way TV content comes out now, things go viral like the culture is that everyone is talking about whatever the latest Netflix release is you know Squid game or whatever….it goes crazy amongst all of their friends, and all the Tik Tok contents is about it … it is a phenomenon.*
>
> *(Parent rural group)*

The inclusion of a subscription service was raised as potentially more valuable for some people living in rural areas where there are fewer in-person entertainment opportunities nearby. Several participants also noted the benefit of additional TV content with an Amazon Prime subscription, which they found to be a useful option for deliveries in rural areas.

> *Woman 1: I do think if you live rurally you do need more entertainment wise because if you can't get in to places to watch a play, theatre you know cinema anything like that, you need something else don't you to replace it? …*
>
> *Woman 2: Well yes because it is a long way … I do use Netflix, and I do use Prime and things because I just feel it is my entertainment it makes you know life more pleasurable really.*
>
> *(Pension-age rural group)*

With more ways to watch television programmes and stream content available now, some participants from various groups found the rules and requirements for the television license to be confusing. Specifically, there was uncertainty about whether content could be watched on a device other than a television.

These findings must also be considered in relation to other ongoing research in areas such as trust in media and future developments in broadcasting. Research by team members (Yates, et al, 2021; Yates and Carmi, 2022; 2024) indicates that individuals with lower media, digital, and data literacy have less trust in mainstream media and are also less able to discern more reliable content. This combination of low digital literacy and low trust is also strongly correlated with smartphone-only internet access. These results are pertinent to the anticipated shift to 'internet protocol' only (IP-only) TV delivery, where television is provided solely through broadband and not 'over the air' via transmitters. This transition may occur in the mid-2030s and is currently under review by the UK government (see: https://www.gov.uk/government/publications/future-of-tv-distribution-audience-research). This shift could undermine assumptions regarding the ease of use and direct accessibility of television expressed in our groups.

3.1.5 Gaming

- **Access to online gaming for households with children aged seven and above**

Parents and young people agreed on the importance of providing access to online gaming for households with children aged seven and older. This aligns with the current 2024 MDLS for households with children. Similar arguments were made about its significance for children's social inclusion, although the age at which it was deemed necessary for children to begin online gaming has been slightly adjusted (from 'primary age' to age seven and above). Being able to game online with others is seen as a key way to hang out and play (virtually) with friends. While parents expressed concerns about online safety (see Chapter 4), they concurred that access to online gaming can be vital for children's inclusion, preventing them from feeling left out, and fostering friendships.

Woman 1: I don't think many children do just play normal games now do they, without being online? I know mine don't much…

Woman 2: … I think it is more the social side now of playing the games with friends isn't it? The chat as well. In a way, the gaming is an excuse for them just to kind of get together and socialise and talk and they often end up talking about school or what they are going to do at the weekend.

(Parent group, Newcastle)

Parents in rural areas noted an increased value of gaming as a means for their children to socialise, where there are fewer opportunities to engage in face-to-face activities or meet up with friends who live further away.

I had friends next door so that was very different and that was pre-all of the digital age, but if your friends are somewhere else, it is less easy to pop round. So it is a convenient way which helps.

(Parent rural group)

As stated in our initial MDLS for households with children, we have not specified a particular mode of gaming access. Groups agreed on this and noted that it will vary according to a child's age, interests, and circumstances. It doesn't necessarily have to be a console—made easier by the fact that many games are now cross-platform. Access can be achieved through a basic console, a suitable laptop, a desktop PC, a tablet, or a smartphone, provided that a sufficient internet connection is available. While working-age groups discussed how some adults could be seriously into gaming, they felt that this was more of an individual choice or interest than a need to be included in MDLS.

3.1.6 Headphones

- **A set of headphones for school-age children**

A set of headphones is included for school-aged children to help with concentration, such as when doing homework in a busy household or listening to music while minimising disturbance to other family members.

3.2 Internet connection – home broadband and mobile data

All groups agreed on the importance of having a reliable and resilient internet connection, through a combination of home broadband and mobile data.

- **Home broadband – with sufficient reliability and speed to support all household members to access the internet at the same time**

And

- **5GB to 15GB per month of mobile data for all individuals with their own smartphone – enough to cover access to essential services and a reasonable social connection, assuming home broadband.**
- **For households without children - the option of unlimited mobile data instead of home broadband if they have a reliable mobile connection.**

Broadband was generally perceived as the most reliable means of internet connection in the home. This was particularly important for households with children, enabling multiple family members to be online simultaneously without having to limit their use or experience lag, especially for activities such as streaming media content or gaming, which demand more from the connection.

We moved a couple of years ago from a house which, well it wasn't a terrible internet connection, it was fine for me but for [son] moving on to Fibre, he tells me is something like 30 times faster … which for him makes a dramatic difference. It actually means that again, this sort of issue about being able to sort of socialise and so on, he can now play games with some of his friends that he was previously excluded from because his connection wasn't good enough.

(Parent rural group)

Groups without children also noted the need for adequate speed and reliability, especially when participating in online video calls. Online calls and meetings require reliable connectivity, whether for work (a few organisations provide home broadband for employees), to engage with public and other services, or to connect with family. Participants in pension-age groups tended to feel more secure with a broadband connection, but they also acknowledged that it was not solely for their individual needs. Having decent WiFi could also be necessary for extended family life, such as when relatives visit, particularly grandchildren.

Man 1: I think it is an essential for the grandchildren.

Man 2: If we didn't have broadband they would leave.

Woman: … Or they would be sat there saying I am bored, I have got nothing to do, you know, and that is the way of life with kids now.

Man 3: I have got three grandchildren who live [away], and when they come over the first thing they ask, have you changed your password?

(Pension-age group, Oldham)

Groups acknowledged the increasing choice around home connectivity. Some participants, particularly those without children, discussed their experiences and the possibility of using mobile data instead of broadband.

Man 1: I haven't got broadband, but I have got unlimited data on my phone.

Man 2: Your router doesn't necessarily need to be connected to a fibre broadband, it is better if it is but as technology moves on, especially with the development of 5G, that router could equally be connected to a mobile network.

(Pension-age group, Leicester)

It was felt that relying solely on mobile data could meet the needs of some households and should therefore be included as an option within MDLS where broadband access could be delivered through mobile data on a MiFi device or tethered smartphone. However, participants noted that this would require unlimited mobile data, and crucially a strong mobile connection with sufficient reliability and speed to support all household members' simultaneous access to the internet, which will vary by household size and type of use. Otherwise, there were concerns that it risked inadequate connectivity.

Man 1: I had unlimited [data] so it wasn't a problem but … it filled a need, it wasn't necessarily the most practical thing in the world, I would have to constantly keep my phone on charge otherwise it would die.

Woman: It does drop the hotspot all the time so for me… it is just not convenient…. Whereas you can just walk into your house, your smartphone is working if you have got WiFi, your phone is on the internet, your laptop is on the internet, everything is there straight away…

Man 2: I think it is down to probably personal preference. If it works for them not to have WiFi then that is great, but I do think in most situations with multiple devices in the house or probably multiple people, WiFi will be needed to run efficiently…

Man 3: It depends what devices you have got in your house…

Man 1: Yes there might be a little bit of buffering, but it would work.

Woman: But I don't think we tolerate buffering in this day and age… I don't think buffering is acceptable. I think that is substandard.

(Working-age group, Sheffield)

Groups in rural areas have the same need for reliable internet but encounter challenges related to the quality of broadband connections, limited choices of providers, and poor mobile coverage (see Chapter 4). The lack of adequate broadband in rural areas can increase the necessity for additional mobile data when using it at home instead of WiFi, and/or require payment for workarounds, such as extenders to try and enhance the WiFi speed in home, or Starlink satellite connection as an alternative.

We have had to pay to have extenders and different plug ins all round our home, with both of us working from home. It really is essential and then obviously after 3 o'clock not only are we both working from home but then our children come home so we really do need it, and we have to pay to get the kind of speed to get the access.

(Parent rural group)

Conversely, poor or absent mobile signal makes reliable broadband even more important, as it is necessary for WiFi calling when people cannot access a mobile signal.

Assuming that home broadband provides internet connectivity, groups discussed the mobile data needs of household members for an acceptable level of connection outside the home, in order to keep people connected and to prevent regularly running out of data. While determining an exact amount was challenging, the groups noted several principles for minimum acceptable data use. These included:

- **Having enough to access essential apps and online services when out and about – such as maps and navigation, transport/timetables, car parking, shopping and banking. Parents noted the importance of using location apps, transferring money and accessing school apps on the go.**
- **Having enough to maintain social connections, participate in message sharing 'in the moment', and watch or listen to short digital content, but not to stream or watch recurring videos.**
- **Use free WiFi where available, reliable, and safe.**
- **Being mindful of data consumption.**

Data ranging from 5GB to 15GB per month per individual who has their own smartphone is considered sufficient for a minimum acceptable level across households, although this will vary depending on household and individual interests and access to WiFi. Most activities described by participants are not very data-intensive, and the main issue affecting mobile data usage is the extent of digital content consumption and how this varies across individuals. For example, data levels at the higher end of this range are suggested for working-age groups without children, to enable some social media scrolling and/or listening to music, such as while commuting or at the gym. Pension-age groups felt that data levels towards the lower end of the range would be adequate for accessing messages on social media when out and about. Children's data use and needs evolve as they get older – while 5GB per month is seen as sufficient when they first have a phone, which they use more for contact or messaging, their increasing use of social media raises the demand for higher data levels as they spend more time out of the home independently. Both parents and young people observe that being able to watch or share a video or TikTok with friends is important for inclusion within an acceptable level, and up to 15GB is seen as more realistic.

Participants often found it difficult to consider how much data someone might need because they had large or unlimited data plans themselves, and therefore didn't have to monitor their

usage or be aware of the amount of data a particular activity could consume. This seemed more apparent than in the previous MDLS study conducted just over two years earlier, with participants noting how the cost of data has come down, influencing individuals' attitudes to data consumption.

> *Man 1: I remember a few years ago when not many people had very much data at all on their phones. I couldn't tell you the last time I turned my data off, you know it is just constantly on but I remember when five years ago I would be turning it on, answering a message, turning it back off because I didn't want to use it all but now it is a lot cheaper to get a lot more.*
>
> *Woman: More affordable.*
>
> *Man 1: Because you used to get like the 500MB of data didn't you or something like that*
>
> *Man 2: Then once you run out you were like a recluse…*
>
> *Man 1: Now I think I have got about 50Gb for £8 a month or something like that….*
>
> *Man 2: I wouldn't even know how much data I use.*
>
> *Woman: I haven't got a clue until you just shown us, and it is a lot more than I would have thought.*
>
> *(Working-age group, Sheffield)*

Rural groups discussed how, on one hand, there may be an increased need for mobile data due to limited access to public WiFi in rural areas, concerns about running out of data when in isolated locations, and the greater distances required for travel. This is especially true for children who spend time on buses to and from school and may use their phones for gaming or doing homework during the journey. However, meeting this demand could be challenging, as limited mobile coverage might actually restrict people's access to data and the amount they can use.

Table 1. MDLS goods, services, and connection across households

Digital goods and services	
Home broadband	• With sufficient reliability and speed to support all household members to access the internet at the same time *OR unlimited mobile data in place of home broadband*
Mobile phone and mobile data	• One entry-level smart phone per adult, *and **(HWC) for each child travelling and socialising independently**** • 5GB to 15GB per month mobile data for all household members with their own mobile phone *OR unlimited mobile data in place of home broadband*
Large screen device	• One large screen device (laptop, tablet or PC) per household • ***(HWC) Parent(s) and their first child share one large screen device, with an additional device for every further school-age child***
Television and viewing	• One TV (or TV-capable large-screen device) per household • TV licence or entry-level TV subscription service per household • ***(HWC) TV licence PLUS an entry level TV subscription service****
Landline	• *(PAH) Option for a landline in areas with poor mobile coverage**
Gaming	• ***(HWC) Access to online gaming for children aged seven and over; this need not require extra equipment****
Headphones	• ***(HWC) A set of headphones for school-age children****

Key: *Italics and Underlined – pension-age or older households (PAH)*
Italics – households with dependent children (HWC)

3.3 Digital Knowledge and Skills

While goods and services facilitate digital access, knowledge and skills are equally essential for effective and safe digital use. Groups deliberated on the types of digital knowledge and skills required for MDLS. Although a person could always learn more and may need specialised digital skills, such as those for education, training, or employment, the purpose of the groups was to establish an acceptable minimum level. In other words, a level of engagement broadly applicable to all households, enabling them to utilise digital technologies for their diverse yet everyday activities. Groups drew on their experiences of social and cultural participation, training and education, and economic activities to illustrate the application of different digital skills.

Group decisions on digital knowledge and skills are organised into two categories: the functional and the critical. Acknowledging the overlap between these two interdependent categories, the functional includes the knowledge and skills required for getting online and using devices to perform everyday tasks and activities, while the critical emphasises the knowledge and skills necessary for digital safety and wellbeing.

In outlining all the functional and critical skills, the text draws on household-specific examples to illustrate their meaning in people's everyday lives. At the same time, through the deliberative process, groups reached the consensus that the households included in this study need all of the skills and knowledge listed.

3.3.1 Functional knowledge and skills

As many aspects of life now require going online, the ability to operate and utilise digital technology has been identified as necessary for carrying out a range of everyday activities. The knowledge and skills included here are considered functional in that they require practical input (e.g., using an app or filling out an online form) and lead to useful real-life outputs (e.g., a medical appointment or a completed job application). Functional knowledge and skills, therefore, relate to the tasks and activities they enable a person to perform. The different skills are categorised into those that enable a person to get connected ('getting set up'), accomplish tasks ('undertaking tasks and activities'), and maintain digital engagement ('maintaining devices and connectivity').

Table 2 Functional knowledge and skills

Functional knowledge and skills	
Getting set up (devices and connection)	• Using device functions • Connecting to the internet • Changing settings and navigating options
Doing tasks and activities online	• Internet searching • Using apps and programmes • Completing online forms • Sending and receiving emails • Making online payments
Managing and maintaining (devices and connection)	• Monitoring and maintaining device storage • Managing and monitoring mobile data

3.3.1.1 Getting set up

This area collates the types of knowledge and skills that many viewed as 'real basic' (Parents group, Newcastle). 'Getting set up' represents a distinct set of functions that would enable a person to get online and digitally engaged: turning a device on/off, changing device volume, navigating and changing settings and options and connecting devices to the internet.

- **Using device functions and connecting to the internet**

Being able to use devices and connect them to the internet are foundational skills for digital engagement. They reflect a necessary familiarity with devices and connectivity, enabling a person to confidently and flexibly move from one device or from one form of connectivity to another.

Groups could see that not everyone would find these skills easy to acquire. Pension-age groups and working-age groups said that for many in their cohorts, keeping up with changing technology could become increasingly difficult, especially if a significant amount of time had lapsed since they had worked or received new training. Some of the participants identified with this personally too.

> *You need to know what all of the little symbols are to click on to get to what you want…On a laptop, for instance, or a PC, you need to go back to… speakers, how to turn things up and down…how to click on your emails, how to…[when] things come up that you don't want, how to get rid of them, you know and there [are] lots of symbols, I find…I didn't know what they were.*
>
> *(Pension-age group, Leicester)*

> *You get a new generation of phone or you have a new router put in…and you can't make the damn thing work… My first degree was computer science so I have no right to get stuck but each time I progress onto a new device I get completely stuck and can't make the damn thing work.*
>
> *(Pension-age rural group)*

- **Changing settings and navigating options**

Successfully getting set up also means that a person can adjust options and settings to create the best experience for themselves. For groups, this included changing the playback features on YouTube and managing how an app sends notifications or tracks user locations. For devices, it was helpful for people to change screen brightness or, as highlighted by individuals in the pension-age groups, to adjust font size and accessibility settings for better functionality.

3.3.1.2 Undertaking tasks and activities

Whether for leisure, socialising, personal development, or accessing information and services, digital engagement is about what it enables a person to do and achieve. The skills included here could directly support these activities. Many everyday tasks require using an internet browser, downloading an application, navigating it, or utilising emails, video calls, and online forms. All groups generally noted the digitalisation of essential and everyday services.

> *It is forced on you. I have got the NHS app on my phone now because I have to have it. I used to be able to go to a doctor [and] get a prescription, now I have got to do it on the app.*
>
> *(Pension-age group, Oldham)*

The assortment of functional knowledge and skills required was understood as constantly growing to adapt to changes and incorporate more technology (see more discussion in

Chapter 4). This was evident in two areas – AI and Quick Response (QR) codes – that were not mentioned in the initial MDLS groups in 2022 but were raised across household types in the current research. Generative AI served as an example of the changing technology and skills needed. Especially for assessing its appropriateness for a task, as well as for using it as a tool, with mixed responses and understanding among participants.

> *Girl 1: We sometimes use it in science like before assessments, use it to revise. So, we sometimes use like the chat bots, that helps us revise…*
>
> *Girl 2: Not always like using AI for everything. Not getting controlled by it, like you have to use it to do schoolwork when you could actually just look it up instead. .. You can get in to like the habit of just using it all the time.*
>
> *(Young person group)*

> *I have even seen it in CVs as well, CVs come through and you read it and you meet the person and you're like it doesn't sound anything like you at all, and clearly it is just write me a CV about this.*
>
> *(Parent group, Bristol)*

> *I use it all the time … I think it is great it is like when we got the internet initially everyone was like oh this is too much, it is going to change everything, I feel like it is just another step in the technology direction that people are nervous about, but I think it is doing a little good.*
>
> *(Working-age group, Glasgow)*

QR codes were another example, and while they were viewed as convenient, it was acknowledged that their use often lacked any form of instruction on how to use them.

> *My work uses a lot of those [QR codes]. They have got like sheets up in the staff room and if you want to go on certain things, you have got to get on it.*
>
> *(Parents group, Newcastle)*

> *At school, they put a QR code on the board and if you scan it, it takes you to like a quiz or something.*
>
> *(Young person group)*

> *Woman 1: So, when you have the QR code in your photographs you have took the photograph of it, what do you do with it then?*
>
> *Woman 2: You don't take a photograph of it, you put your camera over the QR.*
>
> *Woman 1: You don't take a photograph?*
>
> *Woman 2: Don't take a photograph, it will take you then or on my phone to safari where it opens there with further information on what to do.*
>
> *(Pension-age group, Newport)*

- **Internet searching**

Internet searching is central to many daily activities. When describing school life, young people said they often used internet searches for finding resources to complete homework. Successfully using internet browsers to answer specific questions was valued by all groups, and it was highlighted as supporting digital skills development (see Chapter 4). Across all groups, participants used internet searches to solve digital queries (such as how to use software or a new device). For some of the pension-age participants, being introduced to internet browsers for the first time was a significant milestone in their skills development and digital independence.

> *My grandson taught me, when I first got online he put me on, and I said what do I*

do? He said Google. I said what do you mean, Google? He said anything you don't know, don't phone me gran, Google it and if Google won't talk to you, phone me and I will talk to you. I have never looked back.

(Pension-age rural group)

- **Using apps, programmes, online forms and email**

To engage with digitalised services, people need to be confident and proficient in using a variety of apps, programmes, websites and modes of communication. Navigation and functionality vary among these different interfaces, so successfully carrying out tasks requires the ability to transition between these confidently. As groups described, completing everyday tasks also required knowing about the types of apps, for instance, that exist for different activities and understanding the 'capabilities of their phone' (Working-age group, Sheffield).

Groups described a range of computer programmes they used, for school or for work, training, volunteering and hobbies. They might also want or need to access a variety of apps, such as for travelling, banking, using vouchers, messaging and entertainment. Everyone would have a list of different apps relevant to their needs, but the underlying principles in terms of skills would be the same. People need to be able to install and uninstall apps and navigate them to get the desired outcome. Many apps could also require a registered account, so email is a necessary component for verification and contact: 'you need email to do [anything], first and foremost'

(Working age, Glasgow).

- **Making online payments**

A regular part of everyday life with more digitalised services involves making online payments. Groups living all around the UK described the diminishing number of bank branches, and people in rural and remote areas said they were significantly affected, as they relied on online purchases with fewer options to access physical shops. With the closing of bank branches, groups felt that online banking was no longer an option but an obligation. Some older working and age and pension-age participants were very uncomfortable about digital banking and the risks they might be exposed to. Participants of different ages emphasised the importance of making online payments safely, and this is covered in more detail in section 3.3.2.1.

Banking, for me, should be in red flashing lights… [Digital] banking is critical because more and more branches are closing down, even in quite decent sized towns.

(Pension-age rural group)

3.3.1.3 Management and maintenance

Skills for managing and maintaining devices and data help people sustain their digital engagement, especially since the MDLS includes finite data packages and entry-level devices expected to have smaller storage and memory. Groups deemed these goods and services adequate on the assumption that they were accompanied by appropriate skills to monitor data usage and maintain devices, ensuring they functioned at their best.

- **Monitoring and maintaining devices**

Groups described various types of 'housekeeping' (Working-age group, Belfast) necessary for ensuring devices run smoothly. Entry-level devices with limited storage space require users to monitor the number of files they retain. Parents, for instance, explained teaching their children to periodically delete game apps to create space for new ones. Cloud storage is also available to individuals, necessitating different skills and knowledge. Groups emphasised that this was important not only for managing storage space but also for backing up vital files. Finally, regularly closing apps running in the background helps keep memory space available for other tasks.

Decluttering, isn't it? Because everything comes in…you wouldn't continually let

the mail come through the letter box…email is the same isn't it? It is an electronic postman and, at some point, you have to decide do I need to keep that for reference and if so where do I put it?

(Pension-age group, Leicester)

Woman: I am thinking backing up your data to the cloud [is important].

Man: The amount of people I have had come to me [and] they have lost their entire lifetime of photos… because they were on a phone that was stolen or a laptop which is… the hard disk has died and they haven't backed it up…

(Working-age rural group)

- **Managing and monitoring mobile data**

Having the skills and understanding to monitor data use is important for staying connected.

Monitoring connections—such as checking that devices are connected to home WiFi to avoid using data unnecessarily or setting up data usage alerts—are practical ways to manage data use. Groups also said it was useful to have a general awareness of how much data certain apps or online activities might use.

In the interests of safety, it was important to parents that their children had enough data, especially if they were using tracking apps to share and see different family members' locations. But they also felt that monitoring and budgeting data was a useful 'lesson' for young people (Parent group, Bristol). Young people said that it was reasonable for older children, especially as they become more accustomed to having a smartphone, to help monitor their own data usage.

Girl: You can set your phone to send you a warning when you have used a lot of data so… could just do that?

Boy: Yes, I think you, kind of, just be careful about how much you're using

(Young person group)

3.3.2 Critical knowledge and skills

Critical knowledge and skills were identified for the digital safety and well-being of households. Although many of the areas described here might require individuals to apply various functional skills, this section focuses on the critical thinking and understanding they would need to utilise. Critical knowledge and skills were organised into four areas: for safe connections and transactions (security), evaluating information seen online, and what personal information to share online, and maintaining digital wellbeing.

Table 3 Critical knowledge and skills

Critical knowledge and skills	
Managing security	• Using secure passwords • Evaluating connection security • Making safe payments
Evaluating information seen online	• Identifying and avoiding scams • Assessing information quality and credibility • Customising, blocking and reporting accounts and content
Evaluating what to share online	• Protecting personal information • Assessing online identities and friend requests • Considering digital footprint
Thinking about digital wellbeing	• Managing time spent online • Managing social expectations and pressures • Practicing empathy online

3.3.2.1 Managing security

Keeping accounts, connections and transactions secure is a key part of staying safe online. In many ways, the skills included here have functional elements, as confidence in completing tasks related to banking and payments, or setting up passwords, helps keep personal information safe. At the same time, critical skills are needed to identify the potential risks discussed in this section.

- **Using secure passwords**

Using secure passwords requires an individual to have critical understanding on a number of levels. At the point of creating a password, they need to be able to identify what would make it secure or weak. They need to be able to protect their passwords and store them safely. And underpinning this knowledge is a broader understanding of why security is necessary, the risks that can exist online and the ways that people can acquire and use personal information to decipher passwords.

Pension-age groups, in particular, discussed the fear of having their online security compromised, and mentioned others in their cohort who were not aware of or did not practice password security.

> *Man: I heard somebody say they use the same password for everything.*
>
> *Woman: Yes me. …I know there is risks but*
>
> *Man: There is so many things that need passwords…*
>
> *Woman: You can get a password manager that can remember them for you.*
>
> *(Pension-age group, Leicester)*

- **Evaluating connection security**

People may find it useful or necessary to connect their personal devices to different public networks to manage data usage or overcome signal issues. Public WiFi may be needed for connectivity while at work or school, or visiting shops, cafes or restaurants. Young people and working-age adults with and without dependent children were more likely to talk about using public networks. For example, some working-age people said they enjoyed having the choice to work in a cafe with their laptop. They also gave examples of when they needed to access public WiFi in shops to access loyalty cards. Young people said that they sometimes used school WiFi, connected to school devices or their own smartphones that were sometimes used for quizzes and other class activities.

> *Woman 1: I would use my data first before I would use free WiFi.*
>
> *Woman 2: But there are some shopping centres [where] you don't get phone signal, and you might need to go [online] and download the vouchers that you're spending…I can't get my network in the shopping centre, but I actually need to download the voucher in the shop.*
>
> *(Working-age group, Belfast)*

Across the focus groups, some participants liked using public networks to maintain connectivity, while others avoided it due to the risks it could pose. Whether or not people decide to use public networks, groups agreed that critical knowledge of what was involved was key to making an informed choice, such as understanding that information sent over a public connection can be seen by others.

> *I think security as well becomes an issue with the hotspots when you're out in public spaces, if you're using it, your bank details stuff, you don't really want to be logging on to a random hotspot.*
>
> *(Working-age group, Glasgow)*

- **Making safe payments**

Safe banking and online payments require people to keep their bank details private and to identify attempts to steal money or information (see section below on identifying scams). It also requires people think about how they set up different accounts and whether to store banking information on different platforms.

Banking safety was therefore not always about direct scams, but included accidental purchases. Parents said that they might need to remove their banking information from app stores and games platforms used by children who may otherwise purchase digital content. In the working-age groups, some participants recalled times that they had unwittingly signed up for paid subscriptions when making accounts for different apps and programmes.

> *When you are signing up for stuff [online], like…it will be very small print and people might get caught out if they are not particularly skilled in it with things like recurring payments…Sometimes it can be quite hard to cancel them. You [try to] do it in the actual app and it is like oh, go on to the webpage and then it is not always very easy.*
>
> *(Pension-age group, Leicester)*
>
> *Man: Some apps, when you download [them], they are free and then after a couple of months it starts charging you, it is easy for people not to realise that.*
>
> *Woman: Subscriptions.*
>
> *Man: But it is like you said sometimes, you subscribe for a freebie and then you forget.*
>
> *(Working-age group, Belfast)*

People who lack digital confidence – including both trust in digital systems and trust in their own abilities – can be particularly fearful of any online financial activity, as they worry about the seriousness of being scammed or selecting the wrong option during a transfer or payment. Pension-age groups tended to include participants who avoided online banking and payments due to the risks, although self-confidence and proficiency varied in these groups too, with many pension-age people also using and feeling positive about digital payments. For some of the pension-age people, keeping digital payments safe was about keeping it at home. For instance, they described accessing their online banking via a laptop or tablet at home and not storing any payment cards or having any banking apps on their smart phone.

> *Woman: You need to the skills to do [online banking] as well because that stops quite a number of people from going any further with stuff like online banking. If I had better skills and was reassured about safety I would do it. But because I am not, I am not skilful enough, it stops me.*
>
> *Researcher: Is that because…is there [a lot] at stake?*
>
> *Woman: Yes, the potential impact of it. [You] could lose everything.*
>
> *(Pension-age group, Newport)*

3.3.2.2 Evaluating information seen online

- **Identifying and avoiding scams**

Part of staying safe online involves being able to identify the signs of scams, including direct messages or content seen online which intends to cause harm. This requires continuous vigilance and the ability to question the validity of many sources of information. Being able to identify scams links to many other aspects of staying safe online included in the critical skills, involved, for instance, in people's ability to protect their personal information and make safe payments. Scams can be a very frightening aspect of the internet, targeting groups of all ages.

Man: Yes, we get emails all the time about a parcel that couldn't be delivered, click this link to reschedule delivery.

Woman: And if you have deliveries all the time, you sometimes do think it is legitimate, don't you?

(Working-age group, Sheffield)

I had [a text message] off my granddaughter early hours of the morning, please grandma, I need help, can you send me so much money as my phone has run out. Now my granddaughter… she would never, ever call me grandma, she always calls me nanny…immediately I knew it wasn't her.

(Pension-age group, Newport)

If people scam someone, they don't necessarily always know how old they are. They might scam them thinking they are 20 something, when they are actually just like 12.

(Young person group)

The ability to look up information is important for identifying scams. This involves taking the time to think about messages received and knowing where to look for trustworthy information to know 'how to react' and 'double check the source' (Parents group, Newcastle).

- **Assessing information quality and credibility**

The availability of diverse information can be both a boon and a bane of the internet, and groups are wary of the risks, including scams that intend to steal personal information or money, catfishing, grooming, and mis-/dis-information. Acknowledging that internet safety falls under the remit of many actors and is not just the responsibility of individuals, groups stated that people would need to evaluate what was real and what was fake online to mitigate risks.

Groups felt that everyone needed awareness of the different ways information could be created to spread false information or assist scams. With constantly changing technology and the new means of digital opportunities and harms it could produce, such knowledge and awareness were viewed as an ongoing and developing process rather than a finished endpoint. Parents noted the lack of transparency associated with content that children may view and the need for them not to accept opinions or recommendations at face value.

[Influencers on social media] are marketing to kids, when in the real world we have got all of these rules about who can market to kids. The influencers come across as a friendly face, but actually they are getting paid to market whatever they are marketing. If you're watching an ad on the TV, you know that it's an ad, and even a child would probably know, but if you have been following their lifestyle, [and they tell] you it is a great product, you don't see that as an ad, you see that as a recommendation from a friend.

(Parent group, Bristol)

The increasing availability and use of generative AI exemplified this. Participants across groups noted its impact, just two years after the first MDLS report where it was not mentioned, and that it added a further dimension to the range and complexity of judgements that people have to make when interpreting what they encounter online.

AI has just boomed in the last six months to a year. The amount of incorrect information out there, both visually as well as informatively, people believe what you see, but now you can fake what you show people.

(Parent group, Newcastle)

- **Customising, blocking and reporting content**

In evaluating the different information seen online, people may need to block or report content. Groups talked about blocking phone numbers, email addresses and messaging accounts to avoid unwanted messages or harassment.

Customising digital viewing and engagement experiences is useful for all, although parents and young people explained this could be especially important for households with dependent children, to keep young people safe. For instance, they talked about blocking certain videos on YouTube. Sometimes, despite watching age-appropriate videos, the adverts featured on them were inappropriate and it was necessary to report them, although groups were frustrated by the limited success of this.

> *With You Tube, it is specifically adverts that were coming up. So, [son] was controlling what he wanted to watch as far as the videos go, but he couldn't control the adverts that were coming up. [They] were upsetting him, he was reporting them, it wasn't making any difference. The only way we got round it was to upgrade to YouTube premium so they don't get served adverts so that was an extra cost for us.*
>
> *(Parent rural group)*

While each family will have its own approach to digital parenting, parents need the skills to navigate parental controls if they choose to use this method of monitoring and supporting children's digital safety. Parents found the 'ask feature' particularly helpful, where parents' and children's devices are linked via an app, through which children seek permission to download or purchase any apps, content or items.

> *Man: I had words with my son, I think there have been a few little incidents, you know, who said that you can buy this? So, you do have to definitely make them aware of that. And I have got the 'ask feature', they have got to ask, and I have got to accept it, if they are going to buy stuff…Even if [something] is free, they have still got to ask to download it.*
>
> *Woman: Yes it is the same with the tablet as well. We have to approve it. Some consoles as well, for games on like Xbox. [If] my son wants to buy a game, it is linked to my card, but he has to put a password in…so he can't just go on and buy a game.*
>
> *(Parent group, Bristol)*

3.3.2.3 Evaluating what information to share online

- **Protecting personal information**

Digital safety requires individuals to be protective of their personal information and to maintain diligence regarding what they share online. Part of this diligence involves considering who has access to the shared information and the potential extent of its distribution by others.

The details and timing of information can also impact safety; for example, delaying social media posts about a holiday until after returning home or considering how people might identify your location from your photos. Rural groups noted that being protective of this type of information is pertinent to everyone but may be particularly important for those living in smaller communities, where homes can be more easily identified.

> *If I live in the middle of nowhere and I have shared my details online, everyone knows my location, that is going to be an issue. I always would keep that safe and that was different to when I was living in a nearby town…I don't post stuff straight away because people know where you are, and I think that is a very big thing about personal information and sharing…I have tightened up my security. Before, I never used to have a care in the world, go on Facebook and check in, I am in this restaurant, whatever. I won't do that now because people might know where I live, and my house is empty.*
>
> *(Working-age rural group)*

- **Assessing online identities and monitoring friend requests**

Part of discerning what to share online and protecting personal information is about understanding where information goes and who might see it. Groups of all ages said it was important to practice caution when encountering strangers online, for instance, through online games, platforms for buying and selling second-hand goods or chat forums. They also described the diligence needed to consider friend requests sent through social media or messaging apps. Parents emphasised the importance of discussing online relationships and affiliations with their children.

> *[On social media], kids are just absolutely going mad for likes aren't they? They want everything to be liked, and they want to have as many friends as they can on [social media] … but really, they don't know them, it could be anybody.*
>
> *(Parent group, Newcastle)*

- **Considering digital footprint**

Information people share online can have a lasting impact on them. Groups considered this legacy of digital information and stated that individuals needed to comprehend the trail of data they generated through their online activities – their digital footprint – and they would have to evaluate the potential consequences of, for instance, the viewpoints they expressed to the public.

> *Knowing that if you're on social media, what you're posting is there forever to some extent. People can keep it, Twitter and X, those kind of things. It is available to everybody if you are public.*
>
> *(Working-age group, Sheffield)*

Working-age groups considered the impact on their future or ongoing employment prospects. Young people thought about work too, but their own digital footprint seemed even more fundamental than this, as they were very aware that they were growing up online, and as such, their thoughts and opinions could look completely different in the future.

3.3.2.4 Digital wellbeing

Some aspects of digital wellbeing may require more functional skills, such as using device settings to set time limits and alerts for specific apps, or utilising a phone's do-not-disturb function at bedtime. At the same time, these skills exist within a much broader set of critical ideas about how to incorporate digital technology healthily into everyday life and interactions.

- **Managing time spent online and managing social expectations and pressures**

Groups of all ages and stages expressed concern that excessive time spent consuming digital media could harm physical and mental health, which they noted could affect both adults and children equally. Being readily contactable, a situation enabled by digital technology, could hinder people's ability to monitor and manage their screen time. Groups highlighted the difficulty of balancing time limits with the social pressure to respond to instant messages. The design of social media services significantly influenced this balance, particularly by showing when messages have been read or promoting messaging streaks (the tracking and rewarding of messaging frequency).

> *A lot of my friends with children the same age, the streaks on snapchat, it is just horrendous. The fights and arguments that are happening in households all around the country because of this idea that they have to, you know, the tears [because] they have to respond to these streaks.*
>
> *(Parent rural group)*

I sometimes sit [using phone] for a few hours, and I don't realise that I have been doing it and then I get so frustrated with myself. I am like, why have I wasted so much time? … I will have a message and I will be like, okay shall I just reply very quickly? And then I get so stressed out because I have read the message now, why did I read it, why did I look at my phone? There is a lot of pressure because… you have read a message, that is such a big issue on WhatsApp, they know you have read it and then you haven't replied.

(Working-age rural group)

- **Practicing empathy online**

Digital wellbeing also relates to the culture of online interaction and how individuals contribute positively or negatively to it. Parents discussed online 'etiquette' in the context of teaching children how to communicate appropriately and thinking about how a message may come across to the recipient. Groups said that despite the possibility of anonymity online, it was helpful to practice an ethos of treating each other fairly.

Just like awareness of what online bullying could look like or how your contribution, you might not think it is online bullying but it is… People think they can just leave comments that are anonymous, but they are actually very dangerous.

(Working-age group, Glasgow)

3.4 Developing knowledge and skills in childhood

As part of the review of households with children MDLS, we asked young people when a child might need to develop all the different digital knowledge and skills described above. Their solution to this question was to centre skills development around four key stages of digital use, considering the different skills and knowledge required for each area[3]. The four stages of digital use were: accessing devices; accessing online multiplayer games; obtaining a first mobile phone; and later phone use. Group discussions were utilised to create a timeline of digital use and skills (see Figure 1).

3.4.1 Accessing devices

Children need to develop their understanding of devices and functions when they first start to access a device – this could be before they have a personal device and includes the use of any shared device such as a laptop or tablet at school or at home. In early education, children may already be using some apps and programmes and can be introduced to internet searches. In doing so, they need to build a basic understanding of digital risks and the purpose of passwords.

3.4.2 Accessing online multiplayer games

This stage could represent a step up for children in terms of the critical awareness and thinking that they would need, especially regarding potential interactions with others online. While households might choose to restrict certain games or use parental controls, children would require a deeper understanding of scams and risks to protect their personal information.

Researcher: Identifying risks, when does that become a need for a young person?

[3] This has refined the approach reported in the initial MDLS study with a greater emphasis now on the type of activity or digital use various skills are required for, rather than ages or stages.

Girl 1: Like, quite a young age…I feel like, as soon as you have anything that is of value to you, even if it is like just a digital currency or real money, like, you want to beware of scams. I remember my sister getting really sad over getting scammed for something on Adopt Me.

Girl 2: …You can get [friend] requests on [games].

Girl 1: Yes, and some people might…target games because young people are on them. So, it is good to know from a young age, not accepting just any friend requests.

(Young person group)

Young people also noted that when children start interacting with others online, they need to be able to think critically about what others are saying or messaging.

Boy: People giving critical thoughts on certain, well giving their opinions on critical topics so it could be about certain race or a religion and young people need to know how to just ignore that kind of….

Girl: … I think you need to know what is right from wrong, so to be like able to tell that is just mean, making a bad person if you believe that. Because if there is a post saying this person killed three people lets glorify them that is just not the right thing to do.

(Young person group)

3.4.3 Getting first mobile phone

Eventually, under MDLS, children will need their own smartphones as they start to travel independently, such as to and from school (see above). The groups considered phone use among young people in two overlapping stages: early and late phone use. When a young person gets their first phone, it is suggested that they need fewer apps, mainly direct messaging apps for contacting others, as well as apps they might already be familiar with, such as certain games or YouTube. With more independent phone use away from adult supervision, children will need to build on the critical skills learned in the earlier stages of digital use. Additionally, they may find it useful to create their own passwords, requiring an understanding of what makes a secure password. They might also need to know how to connect to different WiFi and hotspot connections while out and about and understand secure and unsecured networks.

3.4.4 Later phone use

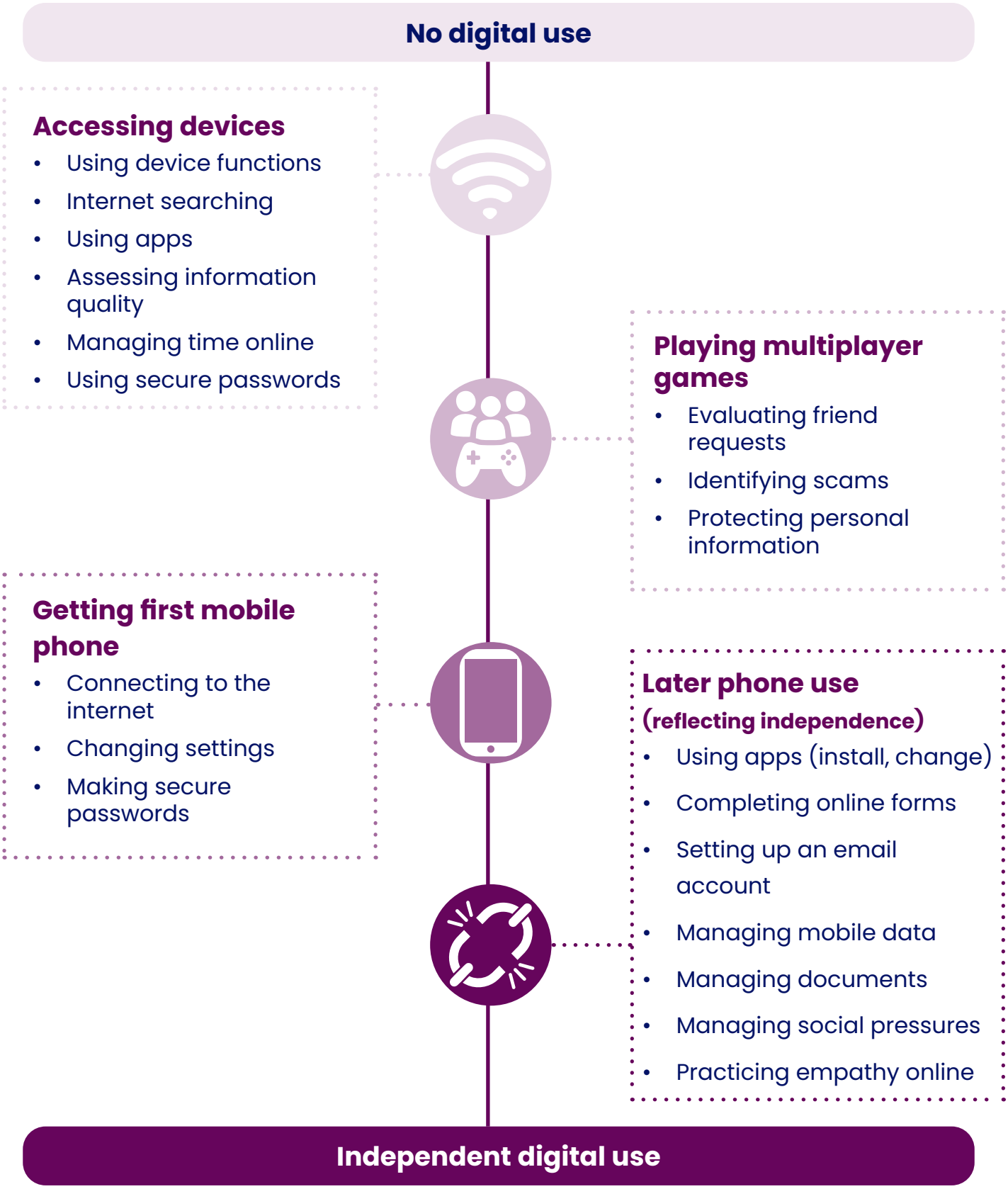
With prolonged phone use as they progress through school, children are likely to become more interested in using their phones and other digital devices for social inclusion and for going out independently. They might already have their own bank accounts, and they will need critical skills to use a banking app or make contactless payments safely. This stage of digital use is characterised by more complex tasks, such as installing programmes, filling out online forms, or creating an email account, along with a deeper awareness of safety. They may be using social media and messaging apps, and need to be mindful of wellbeing - for themselves and for others - developing the ability to manage social pressures and practice empathy towards others online. As they become more accustomed to using data away from home, children may also begin monitoring their data usage.

[Identifying scams] gets even more important when you have got like an actual bank account on your phone because you don't want to be sharing your bank account details to scammers.

(Young person group)

Figure 1 ***Developing knowledge and skills in childhood***

Figure 1 summarises four stages of digital use, over time, identified by young people which shape their needs for skills, from first accessing devices to later phone use as children go through school, do homework online, socialise online, and travel independently.



4 Reaching MDLS: what makes a difference

This chapter brings together several key areas that can support or inhibit households in reaching MDLS. It draws on insights from group discussions around households' ability to acquire the items, achieve the connection, and develop the knowledge and skills outlined in the previous chapter. The key areas relate to financial resources and affordability, infrastructure issues affecting connectivity, and views on various forms of support for digital confidence, knowledge, and skills.

4.1 Financial resources, experiences and digital goods and services

People's ability to meet the MDLS is significantly affected by their financial circumstances. Participants across groups expressed concerns about affordability, value for money, and the costs associated with digital inclusion. A consistent theme was that meeting the MDLS is not a one-time expense but an ongoing financial commitment. This commitment is influenced by the need to acquire and maintain adequate devices, secure reliable connections, and manage digital participation in a rapidly changing digital environment.

Families and couples need to budget for multiple device purchases, replacements, maintenance, and ongoing costs such as data plans or broadband that can support multiple users and devices simultaneously. Families with children face increased costs as their children age and require their own phones and data plans. Participants also noted the costs associated with keeping up with evolving technical requirements and ensuring service compatibility to maintain device functionality.

> *I have recently had to upgrade because I was on a smartphone 5S and more and more things I couldn't do via it, companies I was trying to interact with would tell me I could do it via their app, but the app wouldn't work on mine.*
>
> *(Pension-age rural group)*

The cost of an internet connection is also a concern. Parents described the need for higher-speed broadband packages to accommodate multiple devices being used simultaneously and data-heavy activities such as streaming and online gaming. Working-age adults were concerned about maintaining a reliable and steady connection for remote work. For some participants, this meant upgrading to more expensive packages. While social tariffs are available, they are often means-tested, offer more limited speeds that may not meet the needs of a multi-person household, and are accompanied by low public awareness (Citizens Advice, 2025).

> *Man 1: The starting point should be universal very cheap broadband. Because I am guessing there is loads of people that just can't afford broadband.*
>
> *Man 2: Things change as well, with like broadband now because you have fibre and now we're paying for fibre, and then someone knocks on and says have you got full fibre? I said why wouldn't I have? Oh no you have got the wrong line up. So then it costs you more for full fibre.*
>
> *(Pension-age group, Oldham)*

It is also important to note that the affordability of digital inclusion should not be considered in isolation. Interviews we conducted with families as part of the Welsh MDLS research highlighted that parents sometimes have to make difficult budgeting choices. Given the importance of digital access, particularly for children, they may prioritise paying for broadband, mobile data, or replacing a device. However, in order to do so, they have had to sacrifice other essential spending, such as cutting back on food – which highlights that, while they may appear digitally included, it is not necessarily affordable (Harris et al., 2023).

Groups discussed obtaining the best value for digital devices and services. Participants, particularly in rural areas, emphasised how inconsistent internet access, due to a lack of mobile coverage or inadequate broadband, can increase costs for people with limited options for providers. For instance, instead of being able to choose a provider based on price or service quality, individuals may be compelled to select whichever supplier is available or feel pressured to pay for more expensive packages or alternative solutions. Further infrastructural issues are discussed below.

> *You can't generally shop around, you are restricted.*
>
> *(Working-age rural group)*

> *It seems to be different networks all have different coverage… so actually when he is at big school we can't communicate with him if he's out of signal, so we have to pay for a backup SIM.*
>
> *(Parent rural group)*

A further aspect that riled participants was internet provider practices. In particular, the 'loyalty penalty' referred to situations where someone could end up paying significantly more for their existing broadband connection compared to deals available to a new customer. Additionally, the length of contracts was seen as preventing people from securing a better value package or one more suited to their needs.

> *The two-year contract is actually a dissuader for changing from one supplier to another and you have heard today that people can't get out of it and it is moving on. I think that if there was a recommendation to move that down … a year feels a reasonable amount of time … The technology and indeed our usage is outstripping that two years I would suggest. So I think there is a dead practical way that they would be able to help a lot of people.*
>
> *(Parent rural group)*

Another issue that can affect the options and costs available to people was apparent in the pensioner groups, where some participants mentioned a lack of trust in mobile data providers without a physical presence, or they felt more confident with a well-known brand. This situation can lock people into more expensive or outdated plans compared to the range of online options now offering larger data packages at lower prices. A lack of knowledge or confidence about alternatives may result in people paying a Digital Poverty Premium for their services.

4.2 Infrastructure and implications for meeting connection needs

While participants in several urban groups in city locations noted poor mobile coverage in their area, issues with broadband provision and mobile data connections were dominant themes throughout the rural groups. As outlined in previous chapters and sections, the lack of reliable broadband and/or mobile connection had implications for the ability to meet MDLS, the balance between mobile and broadband provision (having to rely more on one if the other was inadequate), and also on costs. Several participants in rural areas with poor broadband provision described having no choice but to seek alternative solutions to improve connection quality. These could range from having multiple broadband providers in an effort to find a reliable connection to employing workarounds such as satellite provision.

> *We just paid for three of them [broadband providers], but I find we in this household I am very much in the digital age, and I just can't manage anymore without it*
>
> *(Pension-age rural group)*

> *When we first moved to where we live the internet was so bad that we actually bought Starlink, which wasn't a very cheap option, but it meant that we had great internet …but not everybody is able to do that are they?*
>
> *(Parent rural group)*

> *Don't forget with satellite it is not just the connection you're buying, you're also buying the equipment, it cost us £400.*
>
> *(Working-age rural group)*

Where there is poor infrastructure, it not only limits people's internet choices and has financial implications but also increases the need for knowledge and awareness about potential alternatives and workarounds to avoid the risk of inadequate connectivity. A key issue is the lack of access to full fibre connections in the local area, with participants in rural areas aware of lagging behind more urban locations.

> *Man: We're only on partial fibre which goes to the box, and we have the copper to the house so we're always on the bare minimum, so it is often a struggle. Same with the mobile, we're on the bare minimum so we just about get by, but fibre has only come to our area in the last few years so there is a long way to go compared to those in the city.*
> *Woman: Same here. We don't have fibre here yet.*
>
> *(Pension-age rural group)*

> Some had now had fibre broadband installed their area and really noticed the difference, although explained having to raise enough interest locally - a process described as. *'a bit hunger games as we had to fight against other villages to be able to get that service'*
>
> *(Parent rural group)*

Participants also raised concerns about provider practices that they felt inhibited access or were problematic. Even where fibre had been installed, there was an issue of being 'locked in' to an existing contract with a current provider, preventing them from taking advantage of the improved connection. Being 'stuck' in a mobile contract was frustrating for a participant who had been told that there was mobile coverage in their area, which turned out to be insufficient. Another point raised was the potential for improved connection with fibre installation, but the downside was that one provider had a long-term monopoly in their village.

There was a company that installed the infrastructure just on our estate for the fibre… But we're now tied to this one provider for coming up 6 years now, they won't let anybody else on the network because they put the infrastructure in and it is substantially more expensive than other providers, so we're just bound to them …We can't get any other lines in from any other provider because we're too far away.

(Parent rural group)

One participant noted the poorer, yet often more expensive, internet connections that households in rural areas can face and suggested support to explicitly recognise the issue.

You know you have got social tariffs for people on universal credit or pension credit or whatever, maybe there needs to be a rural version of that for people in poor quality areas.

(Parent rural group)

4.3 Confidence, digital skills and support

We asked groups what would help households obtain the necessary digital skills. This section presents two aspects of the discussions. First, groups discussed the interrelationship between skills acquisition and confidence, highlighting certain skills that could be particularly useful for fostering confidence and independence. Second, building on this, groups considered how people develop digital skills and the support they might need.

4.3.1 Confidence and digital skills

Groups frequently discussed confidence in relation to skills, and it was clear that these were intrinsically linked. Increased digital exposure, familiarity with devices, their various icons, and functions could enhance skill levels and instil greater confidence. Yet, a certain degree of self-confidence (the belief in one's ability to successfully carry out tasks) could also empower an individual to adopt a 'trial-and-error' approach to learning - feeling capable of making mistakes and managing them.

I want to point out that [we are] talking about this stuff [skills] as if it is easy. You have to have confidence before you're able to do some of these things, and the confidence comes by exposure to using the facilities.

(Working-age group, Belfast)

Man: A lot of it is to do with confidence though. Confidence to do it, to try it, not worrying about [making] mistakes.

Woman: Say the sat nav in your car, sometimes you think, shall I press that button or not because I don't know what it is going to do. It is the confidence, oh just press it and see what happens.

Researcher: What comes first? Is the thing that gives the person the confidence… just knowing roughly what that button will do?

Woman: Yes, it is [knowing] where to go to find out and find an easy answer to what these buttons and symbols are.

(Pension-age group, Leicester)

In cases of uncertainty, quick access to information could support the development of skills and confidence, and groups regarded the use of search engines as part of a foundational

skill set (see further below). However, the transience of digital change could be off-putting, making digital technology feel increasingly complicated, and for those with fears around online safety, feel risky. This can be especially demanding and hamper the confidence of people who feel out of step with technological development or do not engage in the same range of digital activities as others. While keeping up with digital change was a particular concern for older people, issues were raised across groups, including developments such as in AI, or children's use of social media. These have implications for digital confidence, where people could feel left behind, or engage with some elements but lack confidence in others.

> *Woman 1: We also are hearing more and more about fraud. You know with the computer system, and I just lose confidence in even going into it you know because you don't know what is safe and what is not safe.*
>
> *Woman 2: There are so many scams.*
>
> *Woman 3: All the time.*
>
> *Woman 1: It frightens you… If you put the wrong information in.*
>
> *(Pension-age group, Newport)*

> *I feel with a lot of this stuff, it is moving so quickly that by the time we realise there is an issue, you know the manipulation is already happening. Things like AI, it is really frightening … it has just become so prolific so quickly and it is like society is not quite catching up with this.*
>
> *(Parent rural group)*

> *I haven't got Tik Tok or Snapchat…. So when my daughter is asking for it, I am like, I don't know how to use it. I won't be able to monitor it very well and I don't feel confident.*
>
> *(Parent group, Bristol)*

4.3.2 Support for building digital skills and confidence

Participants discussed a wide range of support sources from tools to help look up information themselves, family and friends to formal support, as well as the role of government, retailers, and service providers.

Groups indicated that **independent learning** formed an essential part of developing digital knowledge, skills and confidence. Participants mentioned using digital resources such as YouTube tutorials, AI tools like Alexa or ChatGPT, and Google searches for digital problem solving, extending knowledge and teaching themselves; 'relying on technology to sort technology' (Working-age group, Belfast).

> *I think if you can use a device as well and search you can sort of teach yourself anything now.*
>
> *(Working-age group, Belfast)*

> *Man: There are videos and explanations on YouTube, and you can Google and say, how do I do this? And it would either direct you to a YouTube Video or Wikipedia or whatever, that kind of thing, so there is stuff there to do that… it is knowing how to get to it.*
>
> *(Pension-age group, Oldham)*

However, this is dependent on already having some digital skills, in particular for internet searching, as outlined in Chapter 3. Using search engines effectively (employing search terms to access information successfully) and critically (evaluating the quality of

information) could boost confidence and act as an important building block to further advance digital skills and knowledge, provide reassurance and guidance while also allowing independence. This was valuable considering that digital skills could sometimes waver—people might forget and need to look up how to perform a digital task—and have to be adaptable to evolving technology and digital risks.

Help from **friends and family** was described as a common starting point when seeking assistance, especially for those with low digital confidence. Groups discussed drawing on social circles or a workplace, partners helping each other, parents drawing on the knowledge of their young and adult children, and grandparents appreciating the proficiency of their grandchildren. Informal support could be particularly valuable where it was easily accessible and provided by people who were trusted and understood the context and needs of the other person. The perceived confidence and familiarity that younger people have with technology often made them a trusted source of assistance, however, participants in working-age and pension-age groups also described being the providers of help themselves.

> *If you have got grandchildren, you have got an IT manager haven't you?*
>
> *(Pension-age group, Oldham)*

> *I am the go-to for my whole family, young and old… I have got two elderly parents and parents-in-law in their late 80s. I have had to teach my mother to use a tablet and my mother-in-law to actually use a mobile phone …Every day for about two weeks … I think as you get older, you have to rely on a family member, which seems to be me.*
>
> *(Pension-age rural group)*

While this support was appreciated and often relied upon, groups observed that it did not necessarily help to develop peoples' own digital knowledge and skills. Older participants in particular noted that family members may come and quickly fix a problem, which was helpful and convenient. However, they sometimes wanted to learn how to complete a digital task themselves, but the person helping had limited time or patience to show them.

> *If my [grown up] kids had to teach me something, they don't have the patience…that is how they have been exposed to it, but I am not as exposed as they are.*
>
> *(Working-age group, Belfast)*
>
> *If somebody asks you to show them something, 9 times out of 10 you do it for them because it takes up less of your time. Rather than sit down and explain it. And I have not got the teaching skills … I can talk them through it but… I am not very good at passing lasting knowledge on.*
>
> *(Pension-age group, Leicester)*

Groups also observed that while couples can be a valuable source of support for each other, it is important for individuals to develop their own knowledge and skills. This was emphasised particularly in relation to digital security, and the need to be able 'to protect yourself' in the moment from online risks when using their devices. Pension-age participants also raised the potential problem of one person in a couple relying on the other. While it was noted that this may be the reality in relationships, they were mindful that it can result in someone lacking the digital knowledge they need if they are left to manage on their own.

> *Man: One of you is going to be on your own, I mean some people are already in that position now so that is coming our way eventually….*

Woman: It is important because when my husband died he did all of the computer stuff and when I was trying to use the computer after he had gone, because I needed to find things that were on it and do things with them, I found it really difficult and I had to try and remember because I used to watch him, and never got involved as much as he did…

Man: When you're on your own you have to know.

(Pension-age group, Leicester)

Not everyone has an informal support network, and groups therefore emphasised that **formal sources of support and information**, including courses and peer-assisted learning, are essential. They felt it important that such services are provided by trusted organisations, such as councils, libraries, community organisations, and educational institutions. Some, particularly, but not only, older participants felt that in-person provision would be beneficial, whereas others felt comfortable with online sources. Trust was also related to hesitancy around sharing personal or security information with a 'stranger', such as a service provider or support organisation, for example, if they required help with logging on or a password.

There is so many telephone scams, even if you are 99% sure you're still reluctant to reveal any little bit of information on the phone. So when it comes to things like passwords and things it really needs to be face to face with somebody as in a shop or a mobile thing going about town teaching people.

(Working-age group, Belfast)

Some participants pointed to a few specific local sources of support, such as a regular Age UK session, a bank using a council office as a mobile hub, or online courses. However, issues were raised around inconsistency in support depending on 'who you get' and locality. Participants also felt that 'you have to go and look for them', and noted a need for more joined up and visible formal support. However, groups were aware of various threats to these types of formal resources, including funding cuts and closures, as well as reduced operating hours and offerings.

Woman 1: I would probably just say in order to learn about this stuff, you know picking up the skills for being safe online I can't think of anywhere physically that I would go to get those skills.

Woman 2: I am thinking about community, we have a community centre here, but I actually haven't seen anything about this…

Woman 1: No, I mean I would get all of this information online, ironically. I can't remember seeing anything advertised I mean possibly our local library would do something but probably for the older generation.

(Parent rural group)

Participants in working-age groups noted a gap in digital skills provision with services aimed at older populations, and children and young people covered at school. They felt that those in between were left with limited structured help, especially if they are not connected to workplaces or schools. Participants were concerned that peoples' needs can be overlooked due to an assumption that they 'naturally' acquire or maintain digital skills, leaving them open to exclusion and risks. As one participant pointed out: 'there isn't anything for the middle aged because it is just presumed that everybody knows how to do it'. These conversations highlight the heterogeneity of 'working age' digital needs and experiences referred to in Chapter 1.

Most people from kind of our demographic and there is people getting younger, you are assuming they are getting more internet savvy and just naturally picking up these skills, but they might not all be. And I think that is quite a danger for people if they are getting pushed to do more and more stuff online, if there is not like reliable stuff that is provided and that is not well publicised.

(Working-age group, Glasgow)

There are the silver surfers and then of course the kids are picking it up in schools, but in my sort of age groups there is the have's and have nots, you know … there is an awful lot of people that I know that sort of in 30's to 50's that are not as IT literate, seeing the world disappearing away from them.

(Working-age rural group)

Some participants suggested various ways that the government could better support households, including through funding and promoting accessible digital skills guidance and courses, raising awareness about digital safety, as well as ensuring affordable and resilient infrastructure (as discussed above). Groups also felt that service providers and social media companies should take more responsibility, but alongside this was a need for regulation.

We do all we can as parents but we're very limited really in what we can achieve… It doesn't seem fair that a lot of the pressure and expectation is put on an individual parent to manage that when the problem [of keeping safe online] is just so much bigger than us

(Parent rural group)

There should be a lot more responsibility with the social media companies… Currently it is like the wild west really. Even when they say they are going to do better or do something, I just don't feel like there is the incentive for them to do it. They have got away with it until now so you know why should they?

(Parent rural group)

Participants also felt that manufacturers and retailers need to do more. They expressed frustration with the lack of user-friendly design, inadequate instructions, and limited after-sales support from manufacturers and retailers[4].

Things are so incredibly complex…. If the interface was much simpler you wouldn't need the training in a lot of it.

(Pension-age group, Leicester)

Anyone who sells TVs or phones or anything, they should offer a service, a basic service to help people out. Like…right okay do you need me to support you to set it up? Giving options, like going to buy a laptop, just to let you know, these are your options that you can go through.

(Working-age group, Sheffield)

Overall, a key theme – learning by doing – connects digital confidence with gaining familiarity with devices and online activities. From group discussions, access to support appears to be highly individual, depending on one's familial network and locality. Resources were not always reliable, accessible, or effective across different locations. Throughout the focus groups, participants highlighted gaps in provision and the need for support that: builds skills to understand, not just fix a problem; is local, trusted, and ongoing; is visible and accessible; and entails clear responsibility, regulation, and funding. However, the groups acknowledged that certain individuals, for various reasons, may not reach MDLS, and that this must be recognised in services that remain accessible to those not online.

[4] An exception was Apple where participants noted the in-person support they provide in their stores – however, this is not accessible to those with lower price Android devices (which are included as an acceptable minimum in MDLS).

5 MDLS and household variation

Representing different household types – from working-age to pension-age, households with and without dependent children, rural and urban – participants in the research discussion groups identified a set of shared digital needs. The core MDLS contents include **a mobile phone, a large screen device, a television and viewing options, as well as a reliable and resilient internet connection, along with essential knowledge and skills.** Beyond these core needs, groups identified some areas of difference too, indicating heterogeneity, both within and across household types. This chapter reflects on the extent and nature of this heterogeneity, including types of digital goods, services and skills needed, the rationale behind these needs and the challenges that can affect meeting them.

Table 4 presents all of the digital needs across households included in this study, indicating the 'core' MDLS required across these households as well as areas of additional need or relevance by household type. Having dependent children in the household makes the biggest difference to digital needs overall, affecting connectivity demands, the number of devices and types of skills needed. As such, in this chapter, households with children and households without children are considered separately. We also draw out key differences between single and couple households. We note changes in the needs of households with children over the two years since the initial MDLS research, which include shifts in the broader digital context. Finally, we highlight issues emerging from the research that impact households living in rural communities.

Table 4 MDLS needs across all households.

Key: *Italics and Underlined – pension-age or older households (PAH)*
Italics – households with dependent children (HWC)

Digital goods and services	
Home broadband	• With sufficient reliability and speed to support all household members to access the internet at the same time *OR unlimited mobile data in place of home broadband*
Mobile phone and mobile data	• One entry-level smart phone per adult, ***and (HWC) for each child travelling and socialising independently**** • 5GB to 15GB per month mobile data for all household members with their own mobile phone *OR unlimited mobile data in place of home broadband*
Large screen device	• One large screen device (laptop, tablet or PC) per household • ***(HWC) Parent(s) and their first child share one large screen device, with an additional device for every further school-age child***
Television and viewing	• One TV (or TV-capable large-screen device) per household • TV licence or entry-level TV subscription service per household • ***(HWC) TV licence PLUS an entry level TV subscription service****
Landline	• *(PAH) Option for a landline in areas with poor mobile coverage**
Gaming	• ***(HWC) Access to online gaming for children aged seven and over; this need not require extra equipment****
Headphones	• ***(HWC) A set of headphones for school-age children****

Functional knowledge and skills	
Getting set up (devices and connection)	**Using device functions** • Turning device on/off properly • Changing device volume **Connecting to the internet** • Connecting to home and public Wi-Fi • Connecting to and sharing hotspots between devices **Changing settings and navigating options** • Changing notification settings • *(PAH) Changing font size*** • *(PAH) Navigating accessibility features (e.g. for dexterity)*** • Using voice commands
Doing tasks and activities online	**Internet searching** • Using correct search terms to find relevant information • Using apps and programmes • Creating accounts (e.g. by linking with email account) and logging in • Using a range of features that may vary in appearance and functionality between different interfaces **Completing online forms** • For booking events, clubs or appointments • For applications (for jobs, memberships or opportunities) **Sending and receiving emails** • Setting up an email account • Composing emails • Navigating different email folders and deleting old/unwanted emails **Making online payments** • Using contactless and digital payments • Setting up regular or one-off payments online
Managing and maintaining (devices and connection)	**Monitoring and maintaining device storage** • Deleting and sorting files and photos • Deleting and sorting apps and programmes **Managing and monitoring mobile data** • Distinguishing between Wi-fi and data connection • Monitoring data usage • Setting data alerts

Critical knowledge and skills	
Managing security	**Using secure passwords** • Making and using secure passwords • Protecting passwords and storing them safely **Evaluating connection security** • Considering different types of connections • Knowing what not to share over public networks **Making safe payments** • Keeping bank details safe • *(HWC) Adding/removing bank details from webpages*** • Identifying and avoiding unwanted subscriptions
Evaluating information seen online	**Identifying and avoiding scams** • Questioning potential scam messages • Avoiding fraudulent hyperlinks **Assessing information quality and credibility** • Considering mis/disinformation • Thinking about intentions behind different sources **Customising, blocking and reporting accounts and content** • Blocking and reporting content, messages and calls • *(HWC) Utilising parental controls**
Evaluating what to share online	**Protecting personal information** • Considering details shared and their timing **Assessing online identities and friend requests** • Considering who can see online posts and information shared **Considering digital footprint** • Thinking about the trail of data created
Thinking about digital wellbeing	**Managing time spent online** • Utilising time limit alerts and do-not-disturb function **Managing social expectations and pressures** • Setting boundaries around messaging frequency and response **Practicing empathy online** • Contributing to a positive online culture

5.1 Households without children

As outlined in Table 4, the range of digital goods, services and skills included in MDLS are broadly similar across households without children, however, in several areas options are included to recognise variance relating to age and more broadly life stage. These reflect different and changing preferences, for example in how people engage digitally, the salience of particular skills or how they feel about support. As noted above, and in Chapter 2, while groups were organised by 'working-age' and 'pension-age', discussions on digital needs in some areas relate more to life stage, and reflect diversity within both categories, with the terms 'older' or 'younger' applied more loosely than denoting a clear 'working' and 'pension-age' distinction.

- **Smart phone:** The smartphone was seen as essential by participants across the research. Older participants tended to focus on its use particularly when out and about, while for younger age groups it is the go-to device in and out of the home.
- **Data:** Younger age groups tended to suggest a need for mobile data at the higher end of the 5-15GB per month range included in MDLS, but observed that the lower cost of data meant there was less consideration about data usage than in the past. Some older people are hesitant to trust new or online-only providers, meaning they may miss out on better value or higher data offers.
- **Large-screen device:** Older participants tended to place more importance on a large-screen device, including for everyday tasks that younger participants typically complete on their phones. Having a larger screen size and a keyboard helps with vision, dexterity and navigation.
- **Home connectivity:** Pension-age groups tended to feel more secure with a broadband connection and noted that decent WiFi was also important when younger family members visited. However, connectivity strength permitting, participants across groups noted the option of using unlimited mobile data in place of home broadband, reflecting increased choice in home connectivity.
- **Landline:** The option of a landline phone was included only by pension-age groups and is the only example of a difference in digital goods among households without children. It's inclusion in the MDLS reflects concerns among some older people about not being entirely reliant on a mobile phone indoors and being left without phone contact if they have an unreliable mobile signal and experience power cuts, which was most salient in the pension-age rural group.
- **Television:** A television set holds greater significance for pension-age and older working-age groups who value it as a familiar source of entertainment and engagement to share with others, as well as for companionship for people living alone. This preference for the television set highlights potential variation by age or life stage in contrast to younger generations who have grown up consuming content on individual devices. The inclusion of either a TV licence or an entry-level subscription service also recognises the need for choice amid evolving viewing habits.
- **Functional knowledge and skills:** Being able to adjust font size and accessibility settings becomes particularly useful as people age. Changing technology and the new functional knowledge required can be daunting for everyone, but this is more pronounced for people who have not worked or received training for some time.
- **Critical knowledge and skills:** Older working-age and pension-age participants were particularly mindful of- and emphasised skills around - online safety, for example, relating to online banking and scams. Younger were particularly aware of the significance of their digital footprint, for example in the context of future or ongoing employment prospects.

- **Support:** Older people can often depend on informal digital support, for example from younger family members, but they also want to learn for themselves and complete digital tasks independently. They are mindful about the risks of not possessing their own skills and knowledge, for instance of being ill-equipped if they can no longer rely on a partner or family member. They value in-person support to develop digital skills, though formal provision can be patchy. Working-age groups reported a gap in formal digital support, countering the assumption that they 'naturally' acquire or maintain digital skills.

5.2 Households with children

The presence of children in the household brings differences and additions to the core MDLS contents. These reflect some specific digital needs of children, adults' parental responsibilities, and greater digital demands that result from having a larger household.

The focus here is around a) supporting children's education and learning, b) family life and entertainment, c) social inclusion and children being able to participate in online life with their friends, and d) digital safety and managing online risks and harms.

- **Smart phone and data:** Children need a smart phone when they start going out independently, for example, to school. This is initially for safety and communicating with parents, but develops into an important means of social interaction for young people, with data requirements increasing as usage changes.
- **Large-screen device:** Sufficient large screen devices are included so that school-age children do not have to rely on a mobile phone to complete homework.
- **Home connectivity:** Broadband, rather than an unlimited data connection, is likely to be necessary for meeting the internet demands of households with children. This is because these households are likely to have more people trying to get online at the same time, for potentially internet-intensive activities, including streaming digital content and online gaming.
- **Television:** A television set, along with additional TV content and a TV licence, plays a significant role in family viewing choices, entertainment, and spending time together.
- **Access to online gaming:** Gaming is solely included in MDLS for households with children aged seven and above, as it pertains to children's social inclusion and the need for connection with their friends.
- **Functional knowledge and skills:** In addition to those needed by adults in general, parents need to know how to operate parental controls and device location sharing, should they choose to use them. All adults across the household types in this study need to be able to use apps and programmes; some examples of these relate specifically to parenting, such as for school engagement. Children, likewise, need to access apps and programmes specific to their education, such as for submitting school exercises and homework.
- **Critical knowledge and skills:** Parents consider not only the status of their own digital safety, but also that of their children. Parents can feel overwhelmed by digital change while also supervising children's digital use and supporting their skills development. This includes the need for children to be aware of online risks, evaluate what they encounter and share online, and their social media interaction.
- **Developing digital skills in childhood:** Working towards independent digital use requires children to develop their digital knowledge and skills with increased online engagement. Four stages of digital use require increasing depth of the functional and critical skills: 1) first accessing devices, 2) online gaming and interaction, 3) getting first mobile phone and 4) later phone use.

5.3 Variations between single and couple households

Groups discussed different needs between single and couple households.

- **Sharing a large-screen device:** To meet minimum needs, groups felt it was a reasonable expectation that adult couples would share a large-screen device, assuming they each have their own smartphone. Discussions revealed that in some households, one partner may be the primary user of a laptop, where the other has less interest or limited access.
- **Social viewing and company:** Pension-age groups noted the social aspect of watching television for couples, as well as its potential to provide engagement and 'company' for those living alone.
- **Knowledge and skills:** While couples can be a valuable source of support for each other, groups felt it is important for individuals to develop their own knowledge and skills - especially for digital security, and the need to be able 'to protect yourself' in the moment from online risks. Pension-age groups were mindful that relying on one person can create problems for the other person if or when left to manage on their own.

5.4 What has changed in the last two years?

Revisiting the needs of households with children confirms the importance and relevance of the the core MDLS contents included in the research conducted in 2022. There are a few adjustments to the ages or stages children have or access things. The age for online gaming has been made clearer, going from 'primary age' to age seven and above, while access to a phone is now linked to its need (when a child travels and socialises independently) rather than age or school year. This is also the case for children's skills development which is now linked to the type of digital engagement – the kind of devices a child would be using and what they might be doing on them – and what skills they need at that stage to do that confidently and safely.

The amount of mobile data included in MDLS has increased for both parents and older children, from 5GB to up to 15GB per month. This reflects greater dependency on and use of phones and increasing use of social media where being able to watch or share a video with friends is seen as important for inclusion. Participants also noted that the lower cost of data over the last few years has influenced individuals' attitudes to data consumption. This was relevant across household types, in particular parents and working-age groups who discussed the use of new, cheaper online only data providers.

Finally, AI and QR codes are two areas of digital development that emerged across various household types in the current MDLS research but were not mentioned by participants in the initial 2022 study. While QR codes were initially perceived as something new to adapt to, the rise of AI generated greater concern, characterised by mixed opinions and differing levels of understanding among participants. AI exemplified the necessity to develop new knowledge, skills, and confidence to keep pace with change, whether as a tool or as a factor necessitating further evaluation of the veracity of information and images.

5.5 Rural areas

The core MDLS contents comprises what households need to be digitally included, and those needs apply in rural areas too – for relevant devices, reliable and resilient connection, and a range of functional and critical skills. There were a few points where there may be some additional considerations, such as: longer travelling distances or lack of public WiFi impacting on mobile data needs; greater emphasis placed on a TV subscription service if it is harder to access entertainment in person; and being more mindful of sharing personal information online where someone may be easily identifiable in a small community. However, a key point of differentiation reiterated throughout the rural groups is the additional challenge people in rural areas face in actually meeting their digital needs – in particular due to poor broadband and mobile provision. This has a range of implications:

- Unreliable and slow internet connection inhibits a household's ability to carry out the online activities they need, which can impact on participation, inclusion and opportunities, for example being able to stream or game online or work from home.
- A lack of adequate broadband can increase the need for additional mobile data when using it at home instead of WiFi. Conversely, a poor or absent mobile signal makes reliable broadband even more crucial, as it is essential for WiFi calling when individuals cannot access a mobile signal.
- Limited choice of providers can result in households paying more for their connection as they cannot 'shop around' for a better deal.
- Workarounds to improve the quality of home internet, such as more expensive packages, extenders to enhance WiFi speed in home, or using a satellite connection as an alternative, also incur additional costs. These options also require developing knowledge about other potential solutions.

6 Conclusion

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

Through research with members of the public from different household types, we now have a single MDLS definition and contents for a wide range of household types. This includes some additional needs for 'digital goods and services' for specific household types (such as additional devices and content viewing for households with children, and a landline handset, identified by pension-age groups). MDLS groups agreed that all households need the combination of functional and critical skills, although some skills were more salient for specific households (such as parental controls in households with children, and being able to adjust font size and accessible settings for pension-age households). While there is broad consensus on household digital needs, the ability of households to meet these needs can vary significantly depending on their financial circumstances, infrastructure, and access to support.

It is important to reiterate that the MDLS contents (outlined in Chapter 3) are not a bare minimum to 'just survive' in our digital society. The MDLS represents the minimum that households deem necessary to participate in ordinary living patterns, customs, and activities in a digital UK. The MDLS also serves as a starting point in outlining the digital needs of households, recognising that various household circumstances and situations (such as disability) can influence their needs and their ability to address both digital and other needs.

This research took place at a time when the UK is transitioning from 'copper' analogue phone lines (Public Switched Telephone Network (PSTN)) to a digital 'broadband' Integrated Services Digital Network (ISDN), altering the way services are provided, and creating confusion and concerns for some customers (especially pension-age and rural groups) which are reflected in our findings.

This research also took place two years after the feasibility study on households with children, which preceded the rapid expansion of AI and generative AI. In this research, without prompts, all groups raised Artificial Intelligence. Awareness of AI use and misuse formed part of the backdrop for discussing skills and knowledge.

These ongoing and future changes indicate that the MDLS research would benefit from being updated regularly to stay relevant and reflect technological shifts which impact everyday lives and services.

6.1 Using the MDLS

Grounded in people's lives and reflecting societal norms, the MDLS enables policy makers, service providers, and wider civil society to understand and talk about the holistic nature of digital inclusion, and how we can all work together to enable households to 'communicate, connect, and engage with opportunities safely and with confidence'.

Below, we offer suggestions on how various stakeholders, including but not limited to the UK government, can harness the MDLS definition and framework to inform future actions. These are challenging times for millions of households, as well as for governments at all levels, businesses, the public sector, and voluntary sector organisations. However, the MDLS research leaves little room for doubt. All groups agree that in the current UK context,

some form of digital engagement is necessary to access services and participate in the world around you 'whether you like it or not'. Below the MDLS threshold, households may face greater digital risks and more forms of exclusion. The MDLS provides a meaningful basis from which to consider what households need to feel digitally included in today's digital society, alongside the opportunities for government (central, devolved, regional, local), industry, public sector and commercial services, voluntary sector organisations, and the research community to help achieve this, together with households.

6.1.1 Opportunities for all stakeholders and organisations

- Stakeholders and organisations can use the MDLS to support partnership working based on a shared understanding of what households need to feel digitally included.
- Stakeholders and organisations can consider which households using their services or in their locality may fall below the MDLS; the impacts of not meeting the MDLS on their access to services and broader opportunities; and what they can do to support households to meet the MDLS.

6.1.2 Opportunities for the UK Government

The Government's Digital Inclusion Action Plan: First Steps recognises the importance of a holistic approach to digital inclusion. The MDLS provides a valuable evidence base to inform future actions and serves as a timely policy provocation for the newly formed Interministerial Group for Digital Inclusion and the new Digital Inclusion Action Committee.

- **The Interministerial Group for Digital Inclusion** can consider the implications for UK society of households falling below the MDLS and which aspects of MDLS the UK Government is responsible for meeting, directly or indirectly, wholly or in part.
- **The Digital Inclusion Action Committee** can consider using the MDLS framework to catalyse collaboration, centred on what the public agrees is necessary for households to feel digitally included in today's digital society.
- **UK Government, with Ofcom and the telecommunications industry**, needs to provide better public information and support to households about the PSTN switchover, addressing customer confusion and concerns about the usability of ISDN/broadband replacements for landline services.

The MDLS can also inform actions in all four focus areas prioritised in the Government's Digital Inclusion Action Plan First Steps.

- **'Opening up opportunities through skills': The Department for Education** can utilise the MDLS to:
  - Inform future curriculum development for schools, ensuring that students leave with digital skills, equipped to engage online safely and confidently.
  - Refresh the Essential Digital Skills framework for adults so that it reflects public perspectives on what is necessary to feel digitally included today.
  - Avoid creating literacy silos (e.g., between digital literacy, media literacy, and AI literacy) and establish a shared framework across departments and the regulator.

- **'Tackling data and device poverty':** Cross-government work is underway to address device poverty, but more efforts are needed to improve the affordability of data connectivity for households with very low incomes. **The Department for Science, Innovation, and Technology, along with the Department for Work and Pensions**, can utilise the MDLS to:
  - Inform and enhance the government's role in eliminating affordability barriers for data connectivity in households living in poverty, particularly for families with school-age children. This should take into account both broadband and mobile data.

- **'Breaking down barriers to digital services':** The MDLS 2024 report was received with interest by user research and service design leads. The Government's 'Blueprint for Modern Digital Government' supports the case for enabling households to achieve the MDLS and for designing online public services that reflect the MDLS. **Government Digital Services (DSIT), DWP, HMRC, Home Office,** and other departments delivering public-facing online services can utilise the MDLS to:
  - Inform and guide government strategies for user research and user-centred design of online services, focusing on household needs rather than just individual ones, and incorporating a holistic approach.

- **'Building confidence and supporting local delivery':** The action plan sees the need for local, targeted digital inclusion support and identifies an evidence gap around confidence as well as the removal of confidence barriers. The **Department for Science, Innovation and Technology's** Digital Inclusion and Skills Unit can use the MDLS to:
  - Promote holistic approaches that consider household needs, for example through the Digital Inclusion Innovation Fund and its evaluation framework.
  - Champion funding for trusted local organisations, like libraries and community centres, which can provide support with digital skills and confidence.
  - Collaborate with service providers across the UK - as well as devolved nations, regional and local government partners - to resource effective signposting to locally available help to build confidence, skills, and knowledge, and to access affordable or free connectivity.

6.1.3 Opportunities for devolved nations

The Welsh Government, and now the Scottish Government, have led the way. Both governments have funded MDLS research to understand its relevance to Welsh and Scottish contexts from the perspectives of the public and stakeholders across local government, NHS bodies, telecoms, social housing, libraries, and the wider public, voluntary, and community sectors.

- **The Welsh Government** has used Welsh MDLS research to inform digital inclusion policy, developing the MDLS for Wales as advocated by Digital Inclusion Alliance Wales. It now plans to expand pilots in the social housing sector using MDLS to frame interventions.
  - Welsh Government has an opportunity to promote use of the Welsh MDLS in place-based approaches beyond the social housing sector, through a planned Welsh Government fund to support locally developed and delivered support.

- **The Scottish Government** has funded Scottish MDLS research (recently completed).
  - Scottish Government has an opportunity to use the Scottish MDLS research and 2024 UK survey findings to raise awareness of the links between child poverty and digital exclusion. It can champion the Scottish MDLS as a catalyst for collaboration through the Scottish Digital Inclusion Alliance.

- **In Northern Ireland**, the MDLS research aligns with a growing awareness and activity surrounding digital inclusion across the voluntary sector, libraries, businesses, and the Northern Ireland Executive, partly driven by the expansion of online public services.
  - The Northern Ireland Executive has the opportunity to draw from insights gained through MDLS at both devolved nation and UK levels to inform strategies and plans.

6.1.4 Opportunities for the regulator and the telecoms industry

Ofcom plays a key role in researching and monitoring internet access, affordable services, and online safety, including digital media literacy. Both Ofcom and the Ofcom Communications Consumer Panel have engaged with MDLS research on households with children.

- **Ofcom, along with the Ofcom Communications Consumer Panel,** can utilise MDLS research to inform its considerations regarding what constitutes 'essential', 'enough', 'affordable', and 'accessible' internet access for households. For example, this includes improving social tariffs and uptake, as well as updating the Universal Service Obligation for Broadband.
- **Ofcom** can use the MDLS to inform ongoing work on online safety and digital media literacy, collaborating with devolved nations, the Department for Education, and the Department for Science, Innovation and Skills to develop a coherent framework for digital skills that includes media literacy and reflects public views and experiences.

6.1.5 Opportunities for regional and local governments

Devolution creates new opportunities for various types of strategic authorities to negotiate resources from the central government to advance regional priorities. Some combined authorities and local authorities are already utilising MDLS in their initiatives. For instance, councils in the Liverpool City Region Combined Authority and the North East Combined Authority have employed MDLS to shape their strategies for digital inclusion. The London Borough of Camden has used MDLS to transform how it supports its workforce in achieving digital inclusion.

- **Local and combined authorities** can use MDLS to catalyse engagement with policy and delivery teams across and within councils, reflecting digital inclusion as an issue which cuts across policy remits such as skills and jobs, tackling poverty, reducing health inequalities, and reforming council services.
- **Local and combined authorities** can use MDLS to inform local use of devolved budgets, such as adult skills funds, and discretionary crisis support for households, in ways that enable households below the MDLS to build skills and stay connected; and to shape procurement practices and use of social value agreements to support digital inclusion.

6.1.6 Opportunities for service providers (across sectors)

MDLS groups touched on a wide range of health, financial, retail, government, and other services now delivered online. Groups discussed loss of in-person services, two-factor authentication, cashless payments, QR codes, and expanding use of apps. Some groups discussed the need to support people to use online services and keep services accessible. MDLS is particularly relevant to service providers (including statutory services, local councils, and voluntary sector organisations) supporting households more likely to be below MDLS.

- **Service providers across all sectors,** particularly banks, broadcasting, and statutory service providers, can utilise MDLS to evaluate and tackle the risks faced by customers in households below the MDLS. This includes examining how these risks intersect with equality duties, fairness, and consumer obligations, as well as identifying ways to enhance design and local support for service utilisation.
- **Service providers across all sectors** need to recognise the role regularly played by families, friends, and others who assist people to use online services, and consider how to balance support for proxy use with safeguards to prevent exploitation. Sharing good practice and learning across service sectors could be useful.

6.1.7 Opportunities for charitable trusts and benevolent funds

The Minimum Income Standard is used by many charitable trusts and benevolent funds to assess household needs and provide support to disadvantaged households. MDLS uses the Minimum Income Standard methodology. While MDLS is not costed, it offers a framework for assessing the 'goods and services' households might need as a minimum for meaningful participation in society, as well as skills and confidence needs.

- **Charitable trusts and benevolent funds** can use MDLS alongside the Minimum Income Standard for a more rounded assessment of household needs.

6.1.8 Opportunities for future research and data collection

The 2024 MDLS survey research has catalysed collaboration among the primary producers of UK-wide datasets on digital inclusion. With the MDLS framework now extended across household types, there is an opportunity to conduct a new survey.

- **Government and independent research funders** have the opportunity to support a new UK-wide doorstep survey to determine the proportion of households that meet the MDLS, as well as the factors that influence this. This could support testing and validation of core digital inclusion questions for use in other surveys and data collection.

The MDLS presents tangible, timely opportunities for policymakers and service providers. Where households lack the material and cultural resources to meet the MDLS, and in a UK context where policymakers and providers need people to engage online, government, regulators, and providers must take action so that all households have *accessible internet, adequate equipment, and the skills and knowledge they need to communicate, connect, and engage with opportunities safely and confidently* in a digital society.

7 References

Blackwell, C., D'Arcy, J., Harris, R., Hill, K., Polizzi, G. and Yates, S. (2025) *Towards a Scottish Minimum Digital Living Standard: Interim.* Edinburgh: Scottish Government. https://www.gov.scot/publications/towards-scottish-minimum-digital-living-standard-interim-report/

Blackwell, C., Davis, A., Hill, K., Padley, M. and Yates, S. (2023) *A UK Minimum Digital Living Standard for Households with Children.* Loughborough: Centre for Research in Social Policy

Citizens Advice (2025) Barriers to Access: Why water and broadband social tariffs aren't reaching struggling households. Barriers to Access: Why water and broadband social tariffs aren't reaching struggling households - Citizens Advice

D'Arcy, J., Polizzi, G., Harris, R., Barrera, P., Yates, S. and Yeoman, F. (2024) Exploring Challenges and Best Practice in Addressing Digital Inequalities: A UK Regional Case Study Approach.

Davis, A., Blackwell, C., Ellis, W., Padley, M., Stone, J. and Balchin, E. (2024) *A Minimum Income Standard for the United Kingdom in 2024.* York: Joseph Rowntree Foundation.

DSIT (2025) Digital Inclusion Action Plan: First Steps, CP 1267, Department for Science, Innovation and Technology. https://www.gov.uk/government/publications/digital-inclusion-action-plan-first-steps/digital-inclusion-action-plan-first-steps

Digital Communities APPG (2025) Care to connect: Public Switched Telephone Network Migration https://digitalcommunities.inparliament.uk/files/digitalcommunities/2025-03/Digital%20Communities%20-%20PSTN%20Report%20-%20FINAL%20March_0.pdf

Hargittai, E. (2001). Second-level digital divide: Mapping differences in people's online skills. *arXiv, Cornell University*. https://doi.org/10.48550/arXiv.cs/0109068

Harris, R., Hill, K., Barrera, P., Yates, S. and Blackwell, C. (2023) *Towards a Welsh Minimum Digital Living Standard: Citizen and Stakeholder Perspectives.* Cardiff: Welsh Government.

Helsper, E.J. (2012). A corresponding fields model for the links between social and digital exclusion. *Communication Theory*, 22(4), 403–426. https://doi.org/10.1111/j.1468.2885.2012.01416.x

Lloyds (2024) UK Consumer Digital Index 2024. https://www.lloydsbank.com/consumer-digital-index.html).

Polizzi, G., D'Arcy, J., Harris, R. and Yates, S. (2025). Digital inclusion landscape in the UK: An overview for the Welsh Government.

Van Deursen, A.J.A.M., Helsper, E.J., & Eynon, R. (2014). *Measuring digital skills. From digital skills to tangible outcomes project report.* https://www.lse.ac.uk/media-and-communications/assets/documents/research/projects/disto/Measuring-Digital-Skills.pdf

Yates, S. and Carmi, E. (2022). Citizens' networks of digital and data literacy. In *The Palgrave handbook of media misinformation* (pp. 191-205). Cham: Springer International Publishing.

Yates, S. and Carmi, E. (2024). Developing and Delivering Data Literacy. In: Yates, S., Carmi, E. (eds) Digital Inclusion. Palgrave Studies in Digital Inequalities. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-28930-9_12

Yates, S. and Lockley, E. (2018) "Social media and social class", *American Behavioural Scientist,* Vol. 62, Issue 9, pp.1291-1316 (ISSN: 0002-7642/1552-3381)

Yates, S. and Lockley, E. (2020) "Digital Engagement and Class: Economic, Social, and Cultural Capital in a Digital Age" in Yates, S.J., Rice, R., (eds.), *The Oxford Handbook of Digital Technology and Society*, Oxford: Oxford University Press (ISBN: 9780190932596).

Yates, S., Kirby, J. and Lockley, E., (2015) "Digital media use: differences and inequalities in relation to class and age", *Sociological Research Online,* Vol. 20, Issue 4, (ISSN: 1360-7804) (DOI: 10.5153/sro.3751) (http://www.socresonline.org.uk/20/4/12.html)

Yates, S., Carmi, E., Lockley, E., Pawluczuk, A., French, T. and Vincent, S. (2020) "Who are the limited users of digital systems and media? An examination of UK evidence". *First Monday,* Vol. 25, No. 7. (ISSN:1396-0466).

Yates, S., Carmi, E., Lockley, E., Wessels, B. and Pawluczuk, A., (2021). Me and my Big Data: Understanding Citizens Data Literacies Research Report.

Yates, S., Hill, K., Blackwell, C., Stone, E., Polizzi, G., Harris, R., D'Arcy, J., Davis, A., Padley, M., Roberts, D., Lovell, J. and Lainge, H. (2023) *Towards a Welsh Minimum Digital Living Standard: final report* Cardiff: Welsh Government https://www.gov.wales/towards-welsh-minimum-digital-living-standard-final-report-summary-html

Yates, S., Hill, K., Blackwell, C., Davis, A., Padley, M., Stone, E., Polizzi, G., D'Arcy, J., Harris, R., Sheppard, P., Singleton, A., Ye, Z., Carmi, E. and Garikipati, S. (2024) *A Minimum Digital Living Standard for Households with Children: Overall Findings Report.* Liverpool: University of Liverpool.