

Doing Digital in Later Life: A Practical Guide

Review of evidence and good practice.

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1. How this search was carried out

This document reports on the findings of a review of UK and international grey and academic literature, supplemented with data gathered across Good Things Foundation and GMCA. The review was framed around understanding the digital engagement and needs of the over 75 population and identifying examples of what works to enable this cohort to digitally engage. Due to the fast-paced nature of digital (particularly in light of Covid-19) – evidence from the last 5 years is prioritised – though examples from up to a decade ago are included if viewed as particularly robust/relevant.

As there is limited evidence of activities which focus exclusively on people aged over 75, the search strategy was designed to be pragmatic and drew on evidence related to known risk factors and interventions that target specific identified digital needs for this group.

To ensure we captured a range of examples, case studies identified across Greater Manchester considered different kinds of evidence, which included formal research and evaluation reports, as well as monitoring data and collection of anecdotal information around impact and learning.

This report is broken down into four sections:

1. Key messages: profile and context

2. What to consider when designing activities for people aged over 75
3. Measuring the impact of your activity: what “good” looks like
4. A selection of case studies to illustrate best practice

In addition in the appendix you can also find much more detailed evidence that supports the findings and background on our search strategy.

2. Key messages: profile and context

This section provides an overview of contextual and demographic information that should be considered when providing an activity aimed at people aged over 75. Whilst a “one size fits all” approach should not be applied, the data shows that people aged over 75 have a distinct profile compared to young older age groups which will no doubt influence their ability and willingness to use digital. The information below provides an overview of key messages - more detailed tables can be found in Appendix One.

Demographic profile

- The 75+ age group are the most likely to be clinically extremely vulnerable and live with long-term health conditions, including physical disabilities and cognitive and/or sensory impairment. This may limit their ability to use some digital tools and devices, and/or attend activities outside of the home.
- People aged over 75 are more likely to live in poverty than their ‘younger older’ counterparts. For example 22% of those aged 85+ and 19% of those aged 80-84 live in poverty, compared to 17 per [cent of 65-69-year-olds](#)). Asian or Asian British and Black or Black British pensioners are [nearly twice as likely to be in poverty](#) than their white British counterparts (33 and 30 percent compared to 16%)

- People aged over 75 are the most likely age group to live alone (38% of those aged 75-84 and 59% of those [aged 85 and over](#)). This group are also the most likely to experience loneliness - with strong overlap across other risk factors for this age group (e.g., living alone, poor health, living in a care home etc.).

Digital profile

- People aged over 75 make up the highest number of [lapsed digital users](#), with reports that progressive health conditions (such as sensory and cognitive impairment) create barriers as people age. Tips on ways to ensure accessibility is factored into activities aimed at people aged over 75 is covered in the next section).
- The evidence shows that a higher proportion of people aged over 75 have limited digital skills and are the least likely to use digital. The difference between this age group and younger older people is stark, with three quarters of 65-74-year-olds in England using the [internet every day](#) or almost every day, compared to under half (46%) of those aged 75+.
- Only 15% of digital non-users aged 75+ say they would like to use the internet more - with the most common reported barrier a lack of digital skills (at 79%).

- Confidence is likely to be a particular factor for 75+- with [23% of internet](#) users aged over 75+ reporting they are 'not at all' confident in aspect of internet use (compared to 8% of the general population).
- Studies show that the 75+ age group are the most likely to express [concerns around internet safety](#), with this cited as a reason to avoid activities such as online banking (as of 2017 - 93% of people aged [over 80 have never used internet banking](#)). This suggests a need to unpick whether reluctance to use digital for activities are due to preference, or the need for support to build skills and confidence.
- The oldest old may have different needs and motivations compared to their 'younger older' counterparts. For example - use of the internet for social networking and streaming is more common among 'younger older' people (referenced by 63% and 59% respectively for those aged [50-64, compared to 26 and 35% for people aged 75+](#)). This highlights the importance, supported across the literature - of taking the time to find out how digital can enhance or meet an existing interest or need.
- Though age is the largest predictor of non-digital use - there is a need to factor in intersectionality:

- Women [who live alone](#) are at particular risk of digital exclusion – with 51% of men aged 75+ had recently used the internet compared to 38% of women.
- Evidence points to a strong socio-economic gradient, with less [than a fifth of the](#) 75-79 age group in the poorest wealth quintile (18.5%) going online frequently, compared with over half of people aged 75-79 in the wealthiest quintile (at 57%).
- Older carers are more likely than the general population and their younger counterparts to [describe themselves as a 'limited' internet user](#), due to being on a low income and lacking the time to develop their skills (nearly a quarter of [people aged over 80](#) (23%) reported providing unpaid care during the pandemic).
- As identified by a [recent review](#) funded through the NIHR, there is a lack of robust data which considers the level of digital exclusion for older ethnic minority groups. That said, as higher levels of digital exclusion have been flagged across the whole ethnic minority population and based on data which highlights higher levels of poverty – this merits consideration when ensuring an activity is inclusive.

3. What to consider when designing activities for people aged over 75

The literature uncovered some common themes around what needs to be in place to support effective digital engagement activities for the 75+ age group. The learning and recommendations tend to reflect processes, rather than specific activities. In other words, it is not necessarily the intervention(s) per se, but rather, the context in which they take place that can make it work, so long as participants can access the activity, feel strongly motivated and can appreciate the functional benefits of digital for them (see Table 4, Appendix One for a detailed overview of the evidence consulted for this review).

Ensuring activities are accessible and inclusive

The best way to ensure an activity is inclusive and accessible is to ask intended participants what they need. Box One below provides some pointers around which areas to consider, and is based on the evidence identified through the review (Table 3, Appendix One provides further details of the sources accessed).

Box One: Before you get started: things to consider when designing an activity to ensure it is accessible and inclusive

Materials are accessible and appropriate

Look to provide materials in different formats (e.g., written and audio) and give regard to use of colours, font size and layout. Adopting Easyread as a standard approach is the best way to maximise accessibility.

Organisations such as AbilityNet offer free resources about what to consider around accessibility requirements.

Ensure that materials are written in plain language and ideally avoid badging the activity as “digital learning” – as evidence suggests this can draw people away from envisaging how digital can benefit them in their everyday lives – which can be particularly off-putting for those with limited experience of using digital. Also ensure that ageist language is avoided ([The Centre for Ageing Better](#) provide some useful guides on this topic).

Physical and remote learning spaces are accessible

It is important to pre-empt potential issues that may occur when an activity is offered across settings, be that at the person’s home, or in a community or residential home setting – to ensure activities are not disrupted due to poor quality connectivity and to consider any potential access issues.

When using a physical space outside of the participant’s home, ideally ask people what their requirements are beforehand. Ensure the venue is easy to travel to and consider starting later to ensure people travelling by bus can use a free pass. A good rule of thumb is to take appropriate steps to ensure an activity is accessible to everyone – an approach recommended by the Dementia Engagement and Empowerment Project (DEEP), who provide free step by step guidance on how organisations should go about this.

Look to train staff and volunteers involved in running activities about how they can ensure accessibility is at the forefront (e.g., for online sessions,

consider position relative to the screen to allow for lipreading, include a text reading function etc.).

Any required devices, platforms and tools are accessible

As people over 75 are more likely to experience physical dexterity, sensory or cognitive related conditions, any technology used may require additional accessories or access to specialist assistive software. The Age UK Think Digital project worked with older people at the outset to identify what they needed to start using digital, such as supporting someone to purchase a digital 'pencil' (a stylus) to support calibration of finger swipes. This consideration is also necessary to ensure ongoing use of digital once activities come to an end (particularly if loaned equipment needs to be returned).

To maximise the likelihood of older people with accessibility needs to continue using digital between and beyond activity sessions, it may be necessary to link in with, and where necessary provide support, to the participant's wider network. This might include carers, family members and/or health and social care workers.

Providing easily digestible step by step written and visual guidance

to supplement digital training sessions has also been found to support ongoing digital use through allowing people to practice in between sessions or use for reference once an activity had ended.

The activity is affordable

It will be necessary to ensure people do not face barriers due to affordability, particularly as evidence shows 75+ are at particular risk of experiencing poverty. Recent ARC interviews with people aged over 75 across GM identified cost as one of the main barriers to getting online.

Therefore, providing access or signposting to the devices and/or data needed may be necessary at the outset.

Where a loaning service is offered – consider extending the lending period so older people feel they have the time to learn the skills they need; this worked well for Age UKs [One Digital](#) Programme.

Running digital skills activities

Box Two provides pointers on some of the main areas to consider when delivering an activity aimed at people over 75. The aim here is not to offer a prescriptive approach – but rather, to summarise the evidence about what has led to improved likelihood of an activity leading to positive outcomes. Overlaying each of the themes is the need for a person-centred approach, which is flexible, culturally sensitive and provides an opportunity to build trust with participants.

Box 2: A “checklist” of components that can support successful implementation of a digital activity for people aged 75+

Tailor learning approaches

Framing an activity around supporting the person to “do what they want” rather than “improving digital skills” improves the likelihood of older people continuing to use digital beyond an activity. Interviews across the 75+ age group carried out by ARC in GM identified that social interaction and convenience are motivators to get online, so tapping into these at the outset is recommended.

A tailored approach will generally require some level of one-to-one support to understand interests, motivations, and preferences, which should be accommodated where possible (e.g., some people may prefer larger interfaces, digital visual experiences, or require help with digital household appliances and not wish to get online at all).

Allow participants to learn at their own pace

Based on an assessed lack of skills and increased likelihood of 75+ experiencing cognitive and/or sensory impairments, longer sessions with repetition of information may be necessary to reinforce learning. Keep sessions as straightforward as possible, particularly when supporting people with limited or no digital skills. This may entail “easing into it” – such as through supporting someone to check the results of a sporting event or hear a favourite song.

Keep it informal

Research suggests that people aged over 75 do not respond well to a formal approach. Where possible, activities should be offered “where people are” – be that in a care home, at home, or a safe community space (Covid-19 restrictions allowing).

Offer reassurance around safety

Evidence shows that concerns around safety are particularly pertinent for the 75+ age group, so actions to pre-empt and address any concerns should be considered, such as providing devices that have anti-virus software, or incorporating awareness raising around e.g., phishing scams. It may be worth linking in with local services who can provide additional support and reassurance.

Provide an opportunity for participants to form meaningful connections

Self-efficacy has been found to increase when good, trusting relationships are built into digital learning environments. Research has identified several mechanisms through which this can be supported, such as through: peer to peer or reverse mentoring; training up digital champions; getting care home staff and volunteers involved; working with family members and carers. Linking in with others increases the likelihood of ongoing digital use beyond time limited funded activities (e.g., supporting care homes to embed digital across day-to-day activities).

Working with existing local partners and building on community assets may also offer a useful “way in” – where digital activities can be offered alongside any existing activity offer. As part of the Widening Digital Participation programme, Leeds Library Service introduced digital tools and support around using them across venues running non-digital dementia friendly activities. “Tech and Tea” (running in GM) combines social and digital activities.

Consider digital in its widest sense

Evidence and local feedback shows that older people experience negative financial and health related outcomes in their day to day lives because of struggling to use digitally enabled household appliances (DEHAs). For example, some referred to using expensive alternatives or “sitting in the cold” due to being unable to work digital heating systems. Therefore, offering support around use of DEHAs may provide that initial “hook” to encourage people to participate in a digital learning activity.

The learning relating to digital access more generally can be applied to supporting use of DEHAs, such as the need for reassurance around safety and (where relevant) privacy concerns, working with the person's wider support network, and helping to increase confidence around using DEHA and seeing potential benefits to everyday life.

There are a few services across GM that can support older people to use DEHA, with Salford CFS looking to introduce sessions around using smart technology following feedback from members. However, this is patchy and there is limited targeted resource in place (Table 5 in Appendix One provides an overview of local GM and wider evidence).

Understand digital engagement as a process, rather than an intervention

This might include working with staff, leaders, and residents across communal housing settings, or communicating with carers, friends, and family to support them to build confidence around digital. In some cases (e.g., care home settings) this may be necessary to ensure participants are able to benefit from digital after an intervention ends through supporting the building of an adequate infrastructure to enable digital use to continue. Care homes involved in digital inclusion activities as part of the Good Things Foundation Widening Digital Participation programme were encouraged to embed digital in the day to day running of the care home. Supporting ongoing digital engagement can be challenging in an environment which tends to follow time limited funding models – though where possible, more open-ended, even light touch support after an activity ends can be an effective way to ensure participants do not become lapsed users due to getting “stuck” (this proved an effective

mechanism to ensuring older people continued using digital for the [Age UK Think Digital](#) programme).

4. Measuring the impact of your activity: what “good” looks like

Our review identified a lack of evidence about what works when designing and implementing digital activities for people 75+. It is therefore recommended that any future activities targeted toward this age group across GM put procedures in place to measure how an activity is working and whether it is achieving what it set out to do. This will provide useful learning which can be shared and help inform future activities. Demonstrating how your organisation has supported digital engagement for the 75+ population can also showcase the quality and value of the activity to external stakeholders, funders and peers as well as contributing to a broader evidence base.

An evaluation may consider the following questions (adapted from [What Works Wellbeing](#)):

- Did it work? About the progress you’ve made with your intended outcomes (effectiveness)
- Was it worth it? About how well you’ve used your resources to support digital engagement (efficiency)
- What difference it made in the medium and long-term? About the transformative and longer-term effects of the activity (outcomes and impact)

There is not necessarily a right or wrong way to measure how an activity is working, you might choose to carry out interviews or send

out a survey to gather feedback from participants, staff and volunteers involved in the activity. Whichever method is chosen, an important consideration is ensuring an inclusive design to maximise participation (such as ensuring someone is available to help a participant complete a survey, identifying an accessible setting to carry out an interview, ensuring questions are jargon free – this will generally follow the advice provided in Section One).

APPENDIX ONE: Evidence Tables

Table One: National and GMCA level overview/context

This table provides an overview of the wider digital context for 75+, with a focus on digital access, confidence, skills and motivation for 75+

Source	Key learning	What does the evidence tell us about engaging 75+ in digital?
The Greater Manchester Digital Inclusion Strategy - Oct 20	<p>This has background/overview about demographics – though only goes up to age 70 – shows that in GM 52% of those offline are between 60 and 70</p> <p>Households with a single adult are less likely to have a home internet connection.</p>	<p>It highlights a tendency for digital use to decrease with age</p> <p>Data highlights living alone as a risk factor for lacking an internet connection – as 75+ are more likely to live alone they will be disproportionately affected by this. Interventions that support connectivity may therefore be helpful.</p>
Age UK, 2021, Briefing Paper Digital inclusion and older people – how have things changed in a Covid-19 world?	<p>Three quarters of 65-74 year olds in England use the internet every day or almost every day, compared to under half (46%) of those aged 75+.</p> <p>Among those aged 75+ more than two out of five (42%) do not use the internet.</p> <p>Although the over 75s make up the highest proportion of non-users, only 15% of</p>	<p>Need for interventions that support skills development</p> <p>Low number of 75+ who say they would like to use the internet more may indicate need for interventions to tackle low levels of motivation– links in with UoM and previous work with Good Things Foundation and Thrive by Design for the need to target interventions toward things that are of interest –</p>

	<p>these say they would like to use the internet more. Among those who would like to use the internet more, the most common barrier was lack of digital skills with nearly four out of five 75+ (79%) mentioned this.</p> <p>Sending or receiving emails was the most common use of the internet among people aged 75+ at 90%.</p> <p>59% of 75+ use internet for online shopping, the use of the internet for social networking and streaming was more common among 'younger older' people aged 50-64 (63% and 59%) than people aged 65-74 (47% and 47%) and people aged 75+ (26% and 35%). Among those aged 75+ just over one in three people (36%) used it to find health-related information and one in four (25%) for information on government services.</p>	<p>rather than as a 'digital' intervention.</p> <p>Based on evidence 75+ tend to use digital for shopping rather than social networking or to access health or government related information. However – lower use of the latter may be linked to a lack of confidence due to not having developed the skills – rather than preference.</p>
<p>Age UK, 2020, Not like riding a bike: Why some older people stop using the internet (lapsed users)</p>	<p>Over 800,000 people in the UK are lapsed users and most are in the older age groups: 150,000 are aged 55-64, 200,000 are aged 65- 74 and 320,000 are aged 75+.</p> <p>Older internet users are more likely to be narrow</p>	<p>This data suggests that 75+ are numerically the most likely to fall into the category of lapsed user – this highlights importance of interventions not assuming this age group have never been online.</p>

	<p>users, with 75+ making up the highest number in this category – at 54%.</p> <p>Among all people aged 75+ around one in twelve had used social media and one in ten online banking in the previous week.</p>	
<p>Age UK, 2018, Digital Inclusion Evidence Review</p>	<p>Among those aged 65 – 74, men are a little more likely to use the internet – but there is a marked difference in the oldest age group as 51% of men aged 75+ had recently used the internet compared to 38% of women.</p> <p>As nearly 1.6 million women aged 75+ live alone, and over a third (34%) of all ‘never users’ are women aged 75 or over – it is reasonable to assume that a large proportion of the households without internet access are occupied by single women aged 75+.</p>	<p>This suggests the need to pay particular attention to targeting women aged 75+.</p> <p>One thing highlighted in a review is that older people specifically mentioned liking visual interactions with people, either via photos or videos. Another study found that people of all ages find that these visuals make communications feel more ‘real’ and intimate, and can lessen feelings of social isolation.</p> <p>Many studies have shown that older people want to get online to reconnect or strengthen existing bonds with family and friends (though not many wish to meet new people by this means).</p>
<p>Lloyds Bank, 21, UK Consumer Digital Index 2021</p>	<p>This only considers people aged up to 69. Though reference to older people with impairments or conditions</p>	<p>Suggests tendency for older cohorts to be more reluctant to turn to support.</p>

	<p>not getting access to the assistive tech they may need to use digital tools.</p>	
<p>NIHR What factors have impacted on older people's (75+) access/exp experience of digital public services during covid-19? Rapid review, part of a small scale qualitative study Main authors – NIHR Applied Research Collaboratio n GM Working with: Greater Manchester Combined Authority Ageing Hub Greater Manchester Health and</p>	<p>Older age is the strongest single predictor of internet access and use.</p> <p>Across all ages, people from lower socioeconomic groups are less likely to use the internet, but older people are more likely to be digitally excluded. Lack of robust data to consider issues of intersectionality, e.g., area deprivation or racial inequalities</p> <p>93% of people aged 80 and over do not use internet banking. House of Lords Select Committee on Financial Exclusion suggested that a third of people aged 80 and above had never used a cash machine or preferred to avoid them</p> <p>Age UK analysis of the English Longitudinal Study of Ageing (ELSA) Covid-19 Substudy conducted early in the pandemic (June/July 2020) showed that 45% of 52-64 year olds and 41% of 65-74 year olds used the internet more since the outbreak, but only 24% of those aged 75+ increased</p>	<p>75+ less likely to use the internet – need to consider intersectionality – particularly those on a low income. Though also consider evidence suggests that age is the biggest predictor of exclusion</p> <p>Support around using financial services potentially a gap (though unpicking the reasons for this is problematic – e.g. a mixture of choice, fear, lack of motivation)</p>

<p>Social Care Partnership</p>	<p>their usage and 9% were using it less.</p>	
<p>Understanding digital engagement in later life May 2015 Katey Matthews and James Nazroo University of Manchester</p>	<p>Internet use is less frequently observed among those in lower wealth quintiles regardless of age group. In the 75-79 age group less than a fifth of people in the poorest wealth quintile (18.5%) frequently access the internet, compared with over half of people aged 75-79 in the wealthiest quintile (57%)</p>	<p>These associations suggest that differences in internet behaviour occur not only as the result of age, but of social position.</p> <p>This lends strong support for interventions that target older people in the lowest wealth quintiles – as statistically they are far less likely than their wealthier counterparts to access the internet.</p>
<p>Ofcom (2017) Adults' media use and attitudes Ofcom (2018)</p>	<p>Internet users over 75 are more likely than in 2015 to have a social media profile (41% vs. 19%).</p> <p>Smartphone use increased from 8 to 15% between 2015-16 for 75+ (*18% as of 2018 – however, research showed that this age group tend to prefer larger devices for internet use. just under half of older (75+) consumers do not have home broadband.)</p> <p>While most internet users stated that they were confident that they could recognise advertising online, only half of search engine users recognised adverts on Google. Internet</p>	<p>Again – shows the importance of intersectionality – a person aged 75+ who is female and in a lower socio-economic group – for example, is the least likely across all groups to feel confident using the internet or being aware of advertising etc. – focus on case studies that identify cumulative/additional inequalities/risk factors.</p> <p>Figures suggest a need to support 75+ with online safety</p> <p>75+ feel less confident going online than other age groups – interventions that are evidenced to improve confidence for older people</p>

	<p>users aged 55-64 (12%), 65-74 (15%) and 75+ (18%) are more likely than other age groups to say they are 'not confident' identifying advertising online.</p> <p>Compared to the average, awareness of personalised advertising is higher among 25-34s (64%) and those in AB households (64%). Lower awareness is found in 75+ (28%), as well as among those in C2 (49%) or DE (48%) households</p> <p>While 8% of internet users are 'not at all' confident in aspect of their internet use – this rose to 23% for 75+</p> <p>Over 75+ are the least happy giving out personal details online (59% compared to the average of 46%) – and are less likely to fact check information provided online (44% vs. 67%)</p> <p>Except for anti-virus anti-spyware packages and using strong passwords on devices that can be used to go online, internet users aged 75+ are less likely to use a range of security features.</p> <p>Users aged 75+ are more likely to say they would ask</p>	<p>(such as Age UKs One Digital/Think Digital online peer support – should be particularly effective for this age group).</p> <p>Identifies that 75+ may also benefit from interventions that work to expand digital skills – not just provide basic skills.</p> <p>Evidence suggests 75+ benefit from being supported through a family member (*this could be a younger family member)</p> <p>Important for interventions to give regard to digital platforms – 75+ tend to prefer larger devices – so smartphone interventions may be less suitable</p>
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	<p>a friend or family member for help (80% versus all age average of 58%) and less likely to say they would work it out for themselves (21% for over-75s vs. 43% overall). Compared to the average (18%), those aged 75+ (1%) are also less likely to say they would watch 'how-to' videos. There is a gender element here – with women more likely than men to ask for help across all ages (67% vs. 49%).</p> <p>2020-21 (*this publication is 65+) 65+, less likely to have adopted smart technology, such as a smartphone, smart TV, or smart speaker – with a preference for larger-screen devices; they were more likely than any other age group to use a computer to go online (87%) and just as likely as the average internet user to use a tablet to go online.</p> <p>Those aged 65+ were less likely to feel confident, both online and in managing their personal data.</p>	
<p>Good Things Foundation, 2020, Digital inclusion and</p>	<p>Charities working with older and vulnerable adults have flagged an increase in cybercrimes masquerading as NHS, government or</p>	<p>For older and disabled people who have gone online for the first time during the pandemic - having access to support will be critical in</p>

<p>online safety for adults in the UK: A review of evidence, policy and practice</p>	<p>charity support. Single older people, those aged over 75 years, and living alone are more likely to be targeted by fraudsters and scammers (ref to Age UK, 2017)</p> <p>Fears around safety may cause older people to step back from going online entirely. Qualitative research with older people learning to use the internet found that worries about online safety did not stop them from carrying out activities which they felt to be safe, but it was consistently cited as a reason to avoid certain activities, especially online banking.</p> <p>Limited' users are more likely to be older retired citizens from lower socio-economic groups, who lack a post-16 education and may have a chronic health condition.</p> <p>Being a carer, especially an older carer, makes it more likely that someone is a 'limited' internet user - using the internet only for a very few things - reflecting lack of disposable income but also lack of time to learn how to benefit fully</p>	<p>shaping their longer-term relationship with digital technology.</p> <p>Interventions that tackle online safety – particularly for new users – would be a good model and help reduce fear around online safety identified across the research</p>
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<p>Good Things Foundation, 2021, Digital exclusion and health inequalities (with Health Foundation and Kings Fund)</p>	<p>*This article considers older people of all ages – though also gives reference to 75+</p> <p>Reasons for older people not using digital: fear, mistrust, lack of confidence, concerns about online safety or things going wrong.</p> <p>Older people may step back from using the internet due to changes to dexterity, cognition, and finding it harder to keep up – or want to keep up – with changes in technology.</p> <p>While older age remains the strongest single predictor of internet access and use among adults, poverty (and related disadvantages such as low literacy and low educational attainment) are the most reliable predictors across all age groups.</p>	<p>Lends further weight to intersectionality – and relevance of interventions that work with older people who are more likely to experience other forms of inequality (particularly poverty)</p> <p>Some of the challenges referred to allude to identified risk factors for people aged 75+ particularly where health conditions may deteriorate (e.g., changes to cognition/dexterity) – again –for interventions aimed at 75+ it will be particularly important to ensure there is a support element – lending/ accessibility will be insufficient.</p>
<p>CtEL, 2021, Loneliness beyond Covid-19 Learning the lessons of the pandemic for a less lonely future</p>	<p>Organisations struggle to engage people with remote support if they have: hearing loss; dementia; lack confidence with remote connection; care home residents with restricted access; those living where community infrastructure is poor; poor or intermittent internet access.</p>	<p>Interventions aimed at 75+ need to give regard to health-related barriers and restricted WIFI access in care homes. Without giving regard to accessibility – the data suggests many 75+ may struggle to participate.</p> <p>Also recommends using technology that people are</p>

	<p>It can be harder for some organisations to support people who have limited English skills due to the difficulties of using text-based apps and that gestures or facial expressions that would otherwise aid understanding cannot be used.</p>	<p>familiar with e.g. a landline telephone can help to ensure that older people can participate in activities/clubs if they do not have the digital skills/equipment</p>
<p>Iriss, 2020, ESSS Outline Digital inclusion, exclusion and participation</p>	<p>Digital participation can minimise loneliness and depression among older people (Koss, 2014; Lelkes, 2013; Aguilar, 2010; Sum, 2008). Barnes (2006) finds older people who have internet access are three times less likely to be socially excluded.</p> <p>Also refers to positive impacts on social interaction for people affected by disabilities and carers.</p> <p>Specific accessibility barriers: physical dexterity (difficulties using a mouse or keyboard), complicated presentation of information, colours, size and layout of text - can be off-putting, or make websites and services unusable (Reform, 2019).</p>	<p>Lends weight to offering activities to support older people over 75+ - as provides evidence that digital can lead to positive outcomes across particular risk factors (loneliness; poor health, disabilities and sensory impairment).</p>

Table Two: Key stats around risk factors relevant to this demographic

(e.g. health, comorbidities, living alone, carer status, other inequalities as identified through the search)

Source		
Independent Age , 2022. Poverty in later life: How people in older age move in and out of poverty, and what should be done to reduce it	Poverty is a particular risk for older age groups – also identified issues around not claiming benefits that they are entitled to.	As services go online – benefits going unclaimed may increase – this would be a good digital support service to offer – building skills and reducing poverty.
Age UK , Poverty in Later life, 2021	<p>2.1 million (18 per cent) of pensioners in the UK live in poverty. Those who rent accommodation and Asian or Asian British and Black or Black British pensioners are nearly twice as likely to be in poverty than white British (33 and 30 percent compared to 16%)</p> <p>The oldest old are at greatest risk of living in poverty, making up 22 per cent of those aged 85+ and 19 per cent of those aged 80-84 compared to 17 per cent of 65-69 year olds.</p>	Proportionally – people aged 75+ are more likely to be living in poverty than ‘younger older’ people – so interventions that support digital accessibility would be relevant to this group. Also highlighting intersectionality – BAME over 75+ at higher risk of living in poverty.

<p>Alzheimer's Society Risk factors for dementia</p> <p>Facts about dementia</p>	<p>1 in 6 people over the age of 80 have dementia. 70 per cent of people in care homes have dementia or severe memory problems.</p>	<p>Dementia particularly impacts on 80+ and makes up 70% of care home residents – so interventions based in care home settings will likely to particularly relevant to 75+</p>
<p>AgeUK, 2021, Impact of Covid-19 on older people's mental and physical health: one year on</p>	<p>Based on an online survey – so more likely to have some level of digital skill. 70% of respondents were aged 70 or above and more than 60% reported living with at least one long-term health condition.</p> <p>Older people from ethnic minorities have been disproportionately impacted by Covid-19</p> <p>Levels of anxiety have increased 36%</p> <p>Cognitive decline due to isolation has made older people more forgetful</p>	<p>This identifies that Covid-19 may have disproportionate impacts on particular groups – as 75+ are more likely to experience cognitive impairment or a long-term health condition – further strengthens relevance of interventions that target these groups.</p>
<p>AgeUK Later Life in the United Kingdom 2019</p>	<p>3.8 million individuals over the age of 65 live alone, 58% of whom are over 75 (around 2.2 million individuals) (ONS, 2017a).</p>	<p>People aged 75+ (in one instance 70+) are the most likely age group to live alone, experience multiple health condition and sensory impairment – so interventions aimed at</p>

	<p>An estimated 4 million older adults in the UK (36% of people aged 65-74, and 47% of those aged 75+) have a limiting long-standing illness</p> <p>1 in 5 people aged 75+ are living with sight loss; 1 in 2 people aged 90+ are living with sight loss (RNIB, 2018).</p> <p>More than 40% of people over 50 years old have hearing loss, rising to 71% of people over the age of 70 (Action on Hearing Loss, 2019).</p> <p>70% of people in care homes have dementia or severe memory problems (Alzheimer’s Society, 2019b).</p>	<p>older people that target these factors likely to be relevant to the oldest old.</p>
<p>ONS, 2019, Living longer: caring in later working life Examining the interplay between caring and working in later life in the UK.</p>	<p>Though 60-69 year olds (22%) are proportionally the most likely age group to be unpaid carers, the 70-79 age group makes up one fifth (20%) (*though more</p>	<p>Though there are a reasonably high proportion of carers aged over 70 – may have specific health needs themselves – so ideally – would identify an intervention aimed at older carers. Intervention ideally</p>

	recent research indicates that this is now much higher)	focuses on the needs of carers – and how this may interact with older age.
AgeUK , 2021, New Age UK research finds the numbers of UK over age 65s caring unpaid nearly double during the pandemic to more than 4 million	New analysis has found that during the second wave of the pandemic, the numbers of over-65s in the UK who were providing unpaid care for someone almost doubled to more than four million (one in three) - with 780,000 over 80, meaning 23% of all over 80s were providing care.	Nearly a quarter of people aged 80+ are carers.
ONS , 2020, Coronavirus and shielding of clinically extremely vulnerable people in England: 24 June to 30 June 2020	When comparing the age distribution of clinically extremely vulnerable people with the general population of England – the 75+ groups represent 30%, compared to 13% of those aged 70-74.	75+ are 2.5 times as likely to be clinically extremely vulnerable when compared to 70-74 – strong support for interventions aimed at supporting people with multiple health conditions – or targeted to those shielding due to Covid.
RNIB, Evidence-based review Older people	Sensory impairment -sight loss is linked to age; the older you are the more likely you are to be living with sight loss. Around 1 in 7 people over the age of 65 and 1 in 3 people over the age of 85 in	Sensory impairment particularly relevant to 75+ interventions targeted to this group – at all older ages likely to be useful.

	the UK are living with sight loss	
Barnett K et al, 2012. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. The Lancet, Volume 380, Issue 9836, pp37-43, 7 July 2012.	Most people over 75 have three or more long term health conditions	Multiple health conditions disproportionately impacts people 75+ so interventions that target health conditions particularly relevant to this group
Campaign to End Loneliness , risk factors in older age	<p>Risk factors linked to loneliness:</p> <p>Personal</p> <ul style="list-style-type: none"> • Being socially isolated or having no family or friends • Being single, divorced or separated • Living alone • Being aged 75+ • Poor health • Developing or living with a life-limiting illness or disability • Living with a mental health condition 	<p>Based on identified loneliness risk factors – most are relevant to 75+ group – and the campaign specifically identify this age group as being at risk – will also likely overlap with other 75+ risk factors – such as living alone, being in poor health, bereavement, sensory impairment, loss of mobility, living in a care home etc. – this suggests identifying D.I interventions that target older people affected by loneliness would be relevant to the 75+ age group.</p> <p>This data also directly links digital exclusion to risk of loneliness.</p>

	<ul style="list-style-type: none">• Living on a low income-poverty <p>Transitions in life that can contribute to loneliness</p> <ul style="list-style-type: none">• Bereavement, becoming widowed• Retirement• Geographical relocation• Living in a residential care home• Becoming a carer• Loss of mobility• Sensory loss• Giving up driving <p>Wider Society</p> <ul style="list-style-type: none">• Lack of public transport• Physical environment (e.g.no public toilets or benches)• Fear of crime• High population turnover• Digital exclusion	
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Table Three: relevant design resources

Accessibility considerations	
Health Literacy Online	<p>Choose a font that's at least 16 pixels, or 12 points. If many of your users are older adults, consider using an even larger font size—19 pixels or 14 points.^{6,24} A small font size is more difficult to read, especially for users with limited literacy skills and older adults.</p> <p>Set up your site so that users can adjust the size of the text on the page.²⁴ Web designers can make this possible by using what's called relative type size. However, it's still important to test out your website with different font sizes to make sure it's still easy to read and navigate. Always check how your content looks on a mobile device, as well—newer, high-resolution screens that render more pixels per inch can make text look smaller.</p> <p>Unusual fonts with unnecessary flourishes can be hard to read. Choose a mainstream font that will feel familiar to your users. It's easier to read text printed in simple, familiar fonts like Verdana.</p> <p>Also, while you can use a different font for headings and body content, don't use more than 3 fonts on a page. Use fewer, simpler fonts to make your page look more cohesive.</p> <p>The bottom line: Choosing sans serif fonts is best practice when writing for the web.^{24,57,58} Use a familiar sans serif font like Verdana, Lato, Open Sans, Proxima Nova, or Source Sans</p> <p>To maximize readability, use a line height that is 130% to 150% larger than the font size.⁵⁶ This helps keep users with limited literacy skills from losing their place in the text as they start reading a new line—and makes it easier for them to use their</p>

	<p>fingers to help keep their place. Line height is also an important consideration for mobile users. When paragraphs or bulleted lists include multiple links, extra height between lines helps ensure that users have enough room to tap the item they want.</p> <p>Clean, uncluttered webpages are easier to read^{24,30}—they’re less distracting and less overwhelming for everyone, especially people with limited literacy skills and very busy users.</p> <p>Use white space in your content to break information into chunks. Leave space between sections of text and around images and buttons. White space around site features also helps mobile users interact with buttons and links without accidentally tapping the wrong place.</p>
<p>Good Things Foundation, Doing Digital Inclusion: Disability Handbook</p>	<p>This handbook outlines some of those barriers, and offers advice and resources, for those already delivering digital skills who would like to better support disabled people, and to disability support organisations wishing to offer digital inclusion activities for the first time.</p> <p>Some tablets have good speech controls, and touchscreens can be easier to use than a mouse for some people with poor hand dexterity. Support your learners to understand everything that a device can do and consider home loans where possible.</p> <p>Get the environment right (Someone who is uncomfortable is unlikely to return);</p> <ul style="list-style-type: none">● Check that the learning venue is fully accessible and not just for wheelchair-users.● Are your lighting levels and signage helpful for visually impaired people?● Have you a quiet area with good acoustics for hearing-aid users, people with speech impairments and for anyone who needs a calm space?

	<ul style="list-style-type: none"> ● Are your toilets and refreshment areas accessible? Do you have a range of chairs to suit different people’s needs? ● Have you at least one height-adjustable desk or workstation? ● Empower individuals to take charge of accessibility: For some issues there are quick fixes, such as making text bigger, reformatting, changing colours and showing people shortcuts to improve their user experience. If relevant, find strategies to help individuals get the most out of less accessible sites rather than rule them out altogether. BBC’s My Web My Way and AbilityNet’s My Computer My Way have some useful accessible help links.
<p>W3C Web Accessibility initiative</p>	<p>Many older people have age-related impairments that can affect how they use the web, such as declining:</p> <ul style="list-style-type: none"> ● vision – including reduced contrast sensitivity, color perception, and near-focus, making it difficult to read web pages ● physical ability – including reduced dexterity and fine motor control, making it difficult to use a mouse and click small targets ● hearing – including difficulty hearing higher-pitched sounds and separating sounds, making it difficult to hear podcasts and other audio, especially when there is background music ● cognitive ability – including reduced short-term memory, difficulty concentrating, and being easily distracted, making it difficult to follow navigation and complete online tasks <p>These issues overlap with the accessibility needs of people with disabilities. Thus, websites, applications, and tools that are accessible to people</p>

	with disabilities are more accessible to older users as well.
AbilityNet	Offer a range of free resources – including factsheets, webinars and podcast providing digital accessibility information. These include those dedicated to supporting people to use particular tools or adaptations (e.g., a smart speaker in the home, keyboard and mouse adaptations, screen readers) or working to support particular conditions (e.g., visual impairment, arthritis, dementia) or requirements (using a computer single handed).
<p>AbilityNet How technology can help older people with sight issues Guest Blogger 01 Oct 2019</p> <p>ALSO SEE (designed for all ages)</p> <p>Christopherson, 2022 How changing the settings on your iPad and iPhone can help people with tremors and other dexterity difficulties (AbilityNet)</p>	<p>Suggests 5 ways technology can help those with sight loss.</p> <ol style="list-style-type: none"> 1. Mobile voice assistants for people living with sight loss Mobile voice assistants notable Apple’s Siri and Google’s Voice Assistant make technology accessible to the visually-impaired. You can ask either a plethora of questions. 2. Video magnifiers For those with impaired vision there are a number of ways of magnifying text. Many are built-in to the software (operating system) installed on your device. 3. Smart home The advent of smart speakers and other technology are making it easier to adapt the home for older people 4. Apps to improve the lives of people with visual impairments For example, Microsoft’s Seeing AI, which performs a number of tasks including the ability to identify a product audibly using just the barcode. 5. Braille translation software and embossers Braille translation software is used when speech output systems would be less effective
Digital Unite	Have several guides which cover digital related topics – including computer basics, online safety

<p>Independent Age</p>	<p>Offers step by step advice on helping older people to get online – including helping people to get set up – including how to support people remotely – such as advice on setting up screen sharing tools, making use of voice assistants.</p> <p>Also advice such as offering any written resources in largeprint.</p> <p>“There are some extra things to consider if you’re showing someone how to get online from a distance.</p> <ul style="list-style-type: none"> • Use the same device – if there's a device you know how to use, consider getting the same one for your friend or relative. You’ll know exactly how it works and can go through the same thing at the same time. • Use screen sharing tools – these allow you to see their screen from your own, so you can talk them through the steps. Examples include Windows Quick Assist, Mac Share Screen or Chrome Remote Desktop. • Pick easier to use smart devices – such as simpler tablets or smart speakers. See our smart devices page. • Make use of voice assistants – such as Siri, Alexa or Google’s assistant. These can make a device easier to use. • Avoid jargon – it’s even more important to explain things simply when you’re not with them.”
<p>Dementia Engagement and Empowerment (DEEP)</p>	<p>There are 80 DEEP groups across the country (including 5 in GM) – which are run by people living with dementia. The website offers a range of online resources including advice on ensuring written (paper and website based) materials, language, inside and outside spaces are accessible “for everyone – not just people living with dementia”.</p>
<p>Good Things Foundation, Dementia and Digital</p>	<p>This resource discusses the social and digital barriers facing people with dementia and their carers, provides information on how the UK online centres network is already helping to overcome</p>

	these barriers, and offers advice on what can be done at a local and national level.
The Centre for Ageing Better “A guide to talking about ageing and older age” A guide to talking about ageing and older age”	The Centre for Ageing Better provide some advice about how to go about this “ Challenging ageism: A guide to talking about ageing and older age ”

Table Four: learning and evidence on the processes and activities that work well for 75+

(this draws on wider research – assessed as relevant based on the assessed digital needs and relevant risk factors for this age group – as highlighted across tables one and two). Split by: a, evidence reviews, b, Research and evaluation of activities.

<p>Damodaran, L., 2021, Barriers and ‘What works’ solutions to Digital Participation For All</p>	<table border="1"> <thead> <tr> <th>COMMON BARRIERS</th> <th>FACILITATORS: WHAT WORKS</th> </tr> </thead> <tbody> <tr> <td> <ul style="list-style-type: none"> • Access issues/problems; • Low confidence; • Support void; • Stress & fear; • Poor design; • Perceptual-motor and cognitive challenges. </td> <td> <ul style="list-style-type: none"> • Ease of access; • Empowering users; • Appropriate design; • Light-touch administration; • Supportive human facilitation of learning • Building confidence. </td> </tr> </tbody> </table>	COMMON BARRIERS	FACILITATORS: WHAT WORKS	<ul style="list-style-type: none"> • Access issues/problems; • Low confidence; • Support void; • Stress & fear; • Poor design; • Perceptual-motor and cognitive challenges. 	<ul style="list-style-type: none"> • Ease of access; • Empowering users; • Appropriate design; • Light-touch administration; • Supportive human facilitation of learning • Building confidence.
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<ul style="list-style-type: none"> • Access issues/problems; • Low confidence; • Support void; • Stress & fear; • Poor design; • Perceptual-motor and cognitive challenges. 	<ul style="list-style-type: none"> • Ease of access; • Empowering users; • Appropriate design; • Light-touch administration; • Supportive human facilitation of learning • Building confidence. 				
<p>PERCEPTUAL-MOTOR AND COGNITIVE CHALLENGES Perceptual-motor and cognitive capabilities encompass mental processing speed; working memory; ability to read, process or abstract information; ability to learn new skills; and speed and accuracy of hand-eye coordination. Any or all of these capabilities can be compromised as a result of particular existing or acquired conditions and/or circumstances, including ageing. Such changes in capabilities have important implications that can impede use of digital technologies.</p> <ul style="list-style-type: none"> • Difficulty using a mouse or completing mouse-based tasks (e.g. to select items or drag and drop an item on screen); 					

	<ul style="list-style-type: none"> • Difficulty using touchscreen devices that require accuracy (e.g. selecting keyboard characters or placing cursor for editing). <p>Cognitive challenges include:</p> <ul style="list-style-type: none"> • - Losing their location on a screen; • - Becoming overwhelmed by features or large amounts of information; • - Difficulty remembering sequences or steps required to complete a digital task; • - Trouble recalling log-in details, such as usernames and passwords; • - Difficulty navigating websites and devices. • - Effects of taking medication are also known to negatively impact cognition and performance and can result in slower processing speeds and difficulties with concentration <p>What has been shown to work where other 'interventions' and approaches fail is compassionate, empathetic and non-judgemental one-to-one support from a trusted person.</p> <p>When recruited and assigned by providers, they are often given the title 'digital champion', but the title can be a disengaging factor for many people. (It is noticeable that where users themselves make the choice, they choose to their helpers by such titles as 'IT buddies', 'Skype Mates', community digital volunteers', 'digital companions' and 'IT tutors').</p>
<p>Leela Damodaran¹, Wendy Olphert² and Jatinder Sandhu (2021 – unpublished) Switching the focus from training to support – getting and keeping the digitally excluded online: a case study in the UK during the</p>	<p>Digital device selection and set-up: the iPad was chosen “on the basis that the accessibility functionality is superb plus the simple layout is less daunting”; adjustment of the settings so that Maureen was able to see the various apps clearly.</p> <p>Cognitive issues: learning new terms, memory, comprehension. Registering her fingerprint in order to unlock the iPad was challenging, as Maureen did not know where to put her finger; terminology such as “finger recognition” initially confused her; Maureen forgot about the finger recognition procedure and, since she was alone, could not get the iPad to work;</p>

<p>COVID-19 pandemic</p>	<p>Maureen did not understand what was meant when her family was telling her to touch the “button” on the iPad in order to unlock it. Her family had to make regular phone calls to remind her of this feature. It took a few failed attempts at FaceTime before Maureen was able to respond to an incoming FaceTime call correctly.</p>
<p>How can slower adaptors to changes in technology be equipped to develop and maintain digital skills for (a) the increasing proliferation of online services; and (b) the future workplace? (commissioned by Foresight, Government Office for Science 2017).</p>	<p>Cognitive changes to fluid intelligence (i.e., processing speed and working memory) resulting from normal ageing - result in individuals losing their location on screen or experiencing navigational difficulties in websites or interfaces, make more mistakes if rushed, also difficulties remembering passwords</p> <p>Recommended /remedial actions:</p> <ol style="list-style-type: none"> 1. Ensure supported personalisation of commonly used features (for example toolbars and menus) to reduce clutter on the screen. 2. Allow longer time for task completion. 3. Create opportunities to utilise the skills that older people have built over the course of their lifetime to benefit others and to allow older people to be recognised as assets/contributors. <p>Vision</p> <p>Contrast discrimination declines significantly with age, also of diseases such as glaucoma, age-related macular degeneration, cataracts, and diabetic retinopathy which affect vision increases with age.</p> <p>Recommended /remedial action:</p> <p>Ensure that high contrast text options are available, that extra time is allowed and that magnification and screen reading software (as well as ongoing support to use such software) is available for those who want to use it.</p> <p>Motor changes</p> <p>Older people can experience issues carrying out mouse-related tasks and touchscreen movements including rotating onscreen objects</p>

	<p>Recommended/remedial action: Use large icons for easy selection and allow extra time for task completion. Ensure that workstations are adapted to user needs/preferences (i.e. length of time for mouse clicks, mouse speed etc.)</p> <p>Hearing changes Hearing decline is also a part of ageing Recommended /remedial action: Keep background noise to a minimum where verbal communication, thinking and concentration are needed.</p> <p>Effects of attitudes, experience and access Recommended/remedial action: Understand and respect the choice of older users to either choose or refuse to use assistive technologies. Recognise the likely requirement for help and support where users do decide to use assistive technologies.</p> <p>Side effects of medical treatments The effects of medicine on cognition and as a consequence on use of digital technologies are known to have a negative impact on performance (Gregor and Dickinson, 2007) Recommended /remedial action: Allow people suffering from chronic conditions extra time and breaks so they can move around to ease their symptoms</p> <p>Interactional effects Recommended/remedial action: Understand the physical limitations of older people with multiple minor impairments and adjust job requirements/arrangements appropriately</p> <p>Overall effect of ageing on performance The effect of ageing on performance is multifaceted and varies from person to person. However some generalisations can be made</p>
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Evidence reviews		
Source	Key learning	What does the evidence tell us about engaging 75+ in digital?
<p>What factors have impacted on older people's (75+) access/experience of digital public services during covid-19? Rapid review, part of a small scale qualitative study Main authors – NIHR Applied Research Collaboration GM Working with: Greater Manchester Combined Authority Ageing Hub Greater Manchester Health and Social Care Partnership</p>	<p>Identifies a weak evidence base around what works for all OP and digital – identify that some reviews are pre-pandemic – and change has been fast paced.</p> <p>Due to the limited research targeted specifically toward 75+ – this review covers older people more generally.</p> <p>Good to link to the interview data that will be carried out Jan/Feb by UoM – this will provide invaluable data about local gaps/facilitators for 75+ – which can be potentially used to ‘triangulate’ this review.</p>	<p>Need to focus on how digital can be used to help people do what they want – less focus on the technology itself (all OP)</p> <p>Recommend initiatives to support people to keep up with skills – refer to high proportion of over 65s being lapsed users (evidence in Table Two shows this is a particular issue for 75+)</p> <p>Refer to NIHR Older People and Frailty Policy Research Unit (all ages) rapid evidence synthesis on use of remote interventions to alleviate social isolation and loneliness (focus on over 70) found mixed evidence regarding online discussion groups and approaches using combinations of technologies, and weak evidence for the potential of social networking sites. Though found that</p>

		<p>approaches that supported the development of close relationships between people, ensured people had shared experiences or characteristics, and offered light-touch oversight (e.g., pastoral guidance) were likely to be more successful. Found that supported video consultation was regarded positively by older people</p> <p>There was also a small amount of evidence showing that use of the telephone was felt to be beneficial, which highlights that more traditional, non-digital approaches may be preferred by some older people.</p>
<p>Good Things Foundation, 2018 I am connected: new approaches to supporting people in later life online</p>	<p>This report covers 75+ - learning and recommendations aimed at all older age groups.</p> <p>Van Duersen and Helsper (2015) note that non-users over 75 are much more likely to say they are 'too old' to start using the internet.</p> <p>Stereotype threat may influence older people's</p>	<p>Ensure support is in place when people are initially getting to grips with digital. Tutors that take the time to build trust and good communication channels with increase learners confidence and self-efficacy</p> <p>Appropriate messaging and marketing should be used to attract people willing/ interested to learn digital skills</p>

	<p>attitude towards learning digital skills - and can create a self-fulfilling prophecy around digital skills, or can exacerbate real cognitive impairment</p> <p>Family members can provide a range of support options including: proxy use; learning and engagement; and troubleshooting and access</p> <p>Community signposting of digital learning facilities has the potential to successfully refer people to appropriate services via a 'wellbeing champion' who will suggest a range of services, not just digital options, and gain the trust of a potential user</p> <p>Several factors affect cognitive function in older age, and the extent to which cognitive function influences digital behaviour. Even outside of the various forms of dementia, varying levels of non-pathological</p>	<p>A fixed curriculum that moves at a fixed pace risks leaving behind older learners who may learn better at a more tailored pace</p> <p>Avoid jargon - as it draws users attention towards the tech and away from the specific activities or benefits of digital.</p> <p>The wrong kind of digital inclusion provision (e.g. short taster courses, fixed curriculum) may cause people to completely disengage</p> <p>Many older people have access to social resources and networks which could be utilised for digital inclusion delivery. Peer-to-peer digital inclusion has unique advantages for older people: based within existing communities, such support is more likely to be sustainable and self-supporting; peers are likely to be known and trusted, and seeing 'people like me' succeed with digital is a valuable source of self-efficacy (Bandura</p>
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	<p>physical deterioration of the brain are universal and irreversible as age increases (Hedden and Gabrieli 2004). These changes make it more difficult to learn and retain new skills and information, a process which generally starts at age sixty and increases more rapidly from the midseventies (Crawford 2004). Research has shown that memory problems can contribute to digital disengagement: they make it harder to retain knowledge between learning sessions; even where the individual tasks in a process may be remembered, the correct ordering may not (Damodaran et al, 2014). But whatever the influence on lapsed use, evidence from our participants suggests that non-pathological cognitive decline is not a major barrier for older people getting online in the first place, since it is only when they start actively learning that they have to grapple with its implications.</p>	<p>1997). In addition, a user-designed curriculum is more likely to be based around real needs and interests, rather than on what older people 'should' want to learn online. But creating the conditions in which peer digital support can flourish is not simple. Our findings suggest that several elements are vital for success</p>
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	<p>Self-efficacy seems to play a much more important role. Without it, the smallest setback - caused by cognitive impairment or anything else - can be taken as evidence that success will never come; where it exists, almost any obstacle to learning a new skill becomes negotiable</p>	
<p>Age UK, 2017, Making Intergenerational Connections - an Evidence Review What are they, why do they matter and how to make more of them</p>	<p>The review revealed that aspects of intergenerational contact programmes affect their likelihood of success, and therefore should be considered when planning intergenerational programmes. Though this does not refer directly to digital - the recommendations seem transferable - and there is limited evidence on digital intergenerational initiatives.</p>	<p>Programme design and preparation Use groups of equal numbers of people of different ages Locate the project in a neutral environment Provide frequent contact between participants Use a pre-intervention tool (extended or imagined contact) Use extended contact as a post programme intervention</p> <p>Content/activity design Sharing goals between the two groups is one way of encouraging cooperation Design activities that encourage sharing of personal information Allow or encourage the groups to learn about each other as individuals</p>

		<p>Features to avoid</p> <ul style="list-style-type: none"> Patronising communication towards any participant Communication from older adults that is overtly personal Unequal groups (either size, or status) Environments unfamiliar to, or uncomfortable for, either group Situations or tasks that confirm negative stereotypes of either group <p>Points to consider</p> <p>Stereotypes (images and assumptions about a group) are often widely recognised across society and may be harder and slower to change than individuals' personal attitudes about older people and age.</p> <p>Aim to create intergenerational friendships. Be aware of, and aim to reduce, anxieties about interacting with each other</p>
<p>Age UK, Briefing Paper Digital inclusion and older people – how have things changed in a Covid-19 world?</p>	<p>As highlighted in the overview table above – 75+ far less likely to be online – and use it in different ways to 'younger older' people.</p>	<p>For most older people (including 75+), the best approach to gaining digital skills is through ongoing support, tailored to their needs and preferences,</p>

	Refer to the need to ensure services continue to be offered in other ways – digital led offer should be part of a hybrid approach	and delivered on a one-to-one basis. Interventions need to factor in additional time to build confidence of OP
Age UK, Mind the digital gap	This gives reference to all OP – though evidence shows the main barriers around lack of confidence/skills will be particularly relevant to 75+ age group. Covid was a key driver to some older people getting online – as they felt they were missing out	Teaching should be provided in easily digestible step by step guides to increase confidence and trust online Volunteers need good digital skills and to be able to work with people facing multiple barriers e.g. language Provide accessibility support to help the older person understand and compare broadband contracts
Review carried out for Age UK (Alden, S. et. Al., 2020 UNPUBLISHED)	Though there are a number of examples of LAUKs running digital based services (e.g. Newham and IOW run a drop-in service, IOW also offer ‘iPad café courses’ and technical at home support, Tower Hamlets offer drop in sessions and home visits, Camden have developed a range of computer training sessions, Age Scotland	Best not to ‘sell’ intervention from a digital perspective, but rather, link to interests. There is a sense that it is not necessarily the intervention, but rather, the context in which it takes place, that can increase effectiveness. An intervention needs to: be 1, person-centred, 2, tailored/flexible, 3, provide a mix of online and face to

	<p>have established a computer club for older veterans, Leicester City and Leicestershire use digital champions to run sessions in different locations – where people can bring their own device) – these are not generally evaluated.</p>	<p>face, is ongoing, gives regard to cultural needs, utilises local community assets, gives regard to accessibility/safety</p> <p>Some evidence suggests particular areas will be of more interest to older people – e.g. incorporates social interaction/digital visual experiences. For older people/people living with dementia/in care home settings, research suggests that touch/visual/intimacy are needed for meaningful connections to develop</p>
<p>Good Things Foundation Scheinberg research review (UNPUBLISHED)</p> <p>(N.b. reports related to this overview are dotted around this review)</p>	<p>Social isolation caused by the COVID pandemic has made a lot of older people realise the importance of digital skills, but has also exacerbated factors which make learning digital skills harder e.g. anxiety, low confidence and cognitive decline</p> <p>*Though some of the discussion here is linked to classroom-based support – which may be less suitable for some 75+ much of the learning is transferable across settings – in line</p>	<p>For classroom-based interventions Older people are more likely to become engaged with digital skills if classes are targeted towards skills that are relevant to their interests (research shows video calling and messaging work well to increase motivation to use the internet)</p> <p>Sessions should be paced according to the learners, with plenty of opportunities for knowledge consolidation</p> <p>Identify mechanisms to minimise technical hitches</p>

	<p>with general findings (e.g., Good Things Foundation/Alden review on loneliness and digital) which identify that the components needed to run a successful intervention are less about 'what' is delivered – and more about 'how' it is delivered</p>	<p>and limit use of jargon – which are barriers to new users</p> <p>Peer to peer support is effective in motivating people to become digitally included</p> <p>Clear step by step guides including visual instructions should be produced, ideally also available as print out versions</p> <p>Ongoing support should be available, even after a project ends</p> <p>Having their own devices alleviates fears about breakages – so ideally factor in support or signposting to services that can support this – if needed.</p> <p>Teaching should take place in an easily accessible location</p> <p>The internet can reduce loneliness if part of a blended offer</p>
<p>The Campaign to End Loneliness, 2020, Promising Approaches Revisited: Effective</p>	<p>Reference to the mixed evidence about what works when using digital to alleviate the loneliness of older</p>	<p>No one size fits all – this lends support to the need for tailored and personalised digital interventions.</p>

<p>action on loneliness in later life</p> <p>Also identified in unpublished work with Good Things Foundation – around loneliness</p>	<p>people is mixed – e.g. social media has been found to both exacerbate and reduce loneliness</p> <p>Reference to blend of digital and community support and the DevicesDotNow Campaign is a joint programme by Good Things Foundation and Future Now – reference to positive impacts of forging relationships with local centres</p>	<p>Blended online and face to face support – none of this is targeted at 75+ though</p>
<p>Maureen Moroney & Alison Jarvis February 2020, Loneliness and Digital Inclusion: A Literature Review</p>	<p>Chronically isolated/lonely people are more likely to have a negative experience of online social interactions.</p> <p>Three non-material factors contribute to use of the internet: perceived value to the user; self-efficacy; need</p> <p>Digital can be ‘disempowering’ when the perceived complexity and language associated prevents interest in its use</p> <p>Reference to avoidance of using abstract</p>	<p>Older people who are lonely encouraged to try online if motivated with a clear goal; and appropriate support is provided</p> <p>Also need to ensure language is simple and jargon free where possible</p> <p>Showing how internet use can contribute to financial savings was found to be a motivator (e.g., demonstrating how to access cheaper deals).</p> <p>Some older learners will require repetition to reinforce learning – topics must constantly be reviewed and the pace of learning must be slower</p>

	language – such as ‘going online’	<p>Group sessions specifically for older learners may be more effective than intergenerational groups</p> <p>Ongoing support and training should be readily available and well signposted</p> <p>To address any concerns over internet safety: provide devices that have anti-virus and anti-malware software and raise awareness of phishing etc related to email and online banking</p>
CfAB, 2021 , COVID-19 and the digital divide	<p>*Report aimed at 50-70 year olds</p> <p>Reference to lack of awareness of what is available – digitally excluded older people don’t know where to turn to access support</p>	<p>Need for interventions to be targeted/ marketed to the 75+ age group and those most likely to be digitally excluded within these groups for them to benefit from them. – good to find interventions that actively market the activity to this group</p>
CfAB, 2018 , The digital age: new approaches to supporting people in later life get online (with Good Things Foundation)	<p>Self-perception of cognitive ability is more of a factor in engaging with digital than actual cognitive ability</p> <p>Families play a complex role in the relationships of older people to the internet -enabling and encouraging use whilst</p>	<p>Need to ensure intervention is personalised to interests of older person - need to view the internet as being relevant and valuable to them and their interests</p> <p>Need to factor in time to help build confidence. Frequent repetition is needed to consolidate</p>

	<p>simultaneously being a disabling factor</p> <p>A 'lack of interest' in the internet may in fact be due lack of self-efficacy</p>	<p>learning. Support should be open-ended so that learners can return when queries arise.</p> <p>Trusted intermediaries eg libraries are effective in generating engagement</p> <p>Highly structured courses dedicated to achieving set digital skills are unlikely to maintain interest or improve self-efficacy</p> <p>Simple language should be used and jargon avoided</p> <p>Self-efficacy is increased when tutors build a good relationship with their learners.</p>
<p>BLCF (Big Lottery Community Fund), 2020, Covid-19 Factsheet 2: Digital Inclusion</p>	<p>Some people, especially older people, feel the internet is 'just not for them' (French, Quin & Yates 2019). Others believe the internet is too complicated for them to use or are fearful of it and do not think it is safe (Fitzgerald 2020).</p> <p>Reference to national guidelines, such as Good Things Foundation Learn my Way and Digital Unite's guide to online safety</p>	<p>Build motivation through finding a "hook"</p> <p>Focus on encouragement rather than training (Since the internet is an 'experience technology', trust grows with every positive experience (French, Quin & Yates 2019 - Digital Motivation: Exploring the reasons people are offline.).</p> <p>Encourage individuals to use the internet in a familiar setting for a short amount of time each day can help build positive</p>

		<p>routines and slowly develop trust and motivation online (French, Quin & Yates 2020).</p> <p>Suggestions for all ages tend to be similar to those targeted at older people (person-centred approach, avoiding jargon, allow space for repetition, long term support, use digital buddies)</p>
<p>BLCF, 2019 Bridging the Digital Divide – Learning from Ageing Better</p>	<p>This document focuses on 50+ though based on other evidence – the main recommendations can be relevant to 75+</p> <p>Understanding where OP are with their skills can facilitate tailoring the help they need:</p> <p>*Accessibility only: People who have digital skills but cannot afford a device/data</p> <p>*Accessibility and skills People who do not have digital skills/interest to learn and cannot afford a device/ data</p> <p>*Motivation People who can afford a device but are not interested in digital skills</p>	<p>Projects work well when members feel: motivated; have peer support; in a trusted group.</p> <p>Three practical areas for helping people move online:</p> <p>Initial packages/kits (offer a support line with this – or offer advisor to help those who wish to buy their own)</p> <p>Ongoing bespoke support (person-centred; finding that initial ‘hook’</p> <p>Guides and training (the entire internet can often be overwhelming for new users so breaking it down into more manageable elements is less intimidating; also avoid jargon; ‘How to guides’ are</p>

	<p>*Skills only People who can afford a device/data and are interested in acquiring digital Skills</p>	<p>particularly helpful if they contain screenshots and simple language to guide a learner through a task)</p> <p>Digital Connector roles are key during the relationship building phase and ensure that the learner has tailored content, type and frequency of support</p> <p>Peer support is effective (ideally familiar with the participants device). A further key feature as to why this approach is working is reciprocity and the value of peer support. This has also been a common finding from our wider Ageing Better research. People value the opportunity to support each other. We also heard that linking into this as a motivation can be helpful – so explaining that family would like to see the person could be a useful tactic in encouraging someone to try and use video-conferencing.</p> <p>Telephone befriending can be a good route to beginning conversations around</p>
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		engaging in digital opportunities,
<p>Independent Age, Older people, technology and community the potential of technology to help older people renew or develop social contacts and to actively engage in their communities (for Calouste Gulbenkian Foundation)</p>	<p>Main assessed barriers: lack of home access to the internet; low awareness of what can offer (refer to 60-69 years – though would expect this to increase with age?); inadequate marketing; inappropriate design and anxieties.</p> <p>Based on review: provision is patchy and often short-lived. In general, projects focused on getting older people online as opposed to providing them with the ongoing support they need to stay online.</p> <p>Identified examples of sustained good practice – of the one still running – Digital Unite, which applies technology creatively to enable older people to make connections, build social networks and actively engage in their communities.</p>	<p>Show value ('hook'): tuning into interests, attitudes and expectations and designing programmes around needs.</p> <p>Training and ongoing support help older people overcome some of their anxieties, build skills and develop their confidence in using technology.</p> <p>The view of most experts is that we have all the kit that is needed. What we lack is the human element: the people and programmes to deliver the necessary training and support</p> <p>Key features of interventions that worked well: Good design, including appropriate interfaces for the target group; Training focused on how older people want to use technology; Ongoing support from a trusted source; Low costs for participants.</p>
<p>NIHR, COVID-19: Remotely delivered interventions to</p>	<p>This review is focused on loneliness specifically, and looks at</p>	<p>Supported video-communication interventions are regarded</p>

<p>reduce social isolation and loneliness</p> <p>Full Report Rapid review of reviews: what remotely delivered interventions can reduce social isolation and loneliness among older adults? Elisabeth Boulton*, Dylan Kneale*, Claire Stansfield, Paul Heron Katy Sutcliffe, Brenda Hayanga, Alex Hall, Peter Bower Dympna Casey, Laura Jefferson, Dawn Craig, Simon Gilbody Barbara Hanratty, Dean McMillan, James Thomas, Chris Todd *Joint first authors</p>	<p>over 50s, so focus on younger older – these factors need to be considered against interventions that look to tackle loneliness in older people (evidence above shows this is a particular issue for people ages over 75)</p> <p>Interventions vary greatly, making it difficult to isolate the effective elements - making comparisons and conclusions challenging.</p> <p>Online discussion groups and forums are less clear with mixed results, with increases in social support, but less evidence for improvements in loneliness.</p> <p>The evidence for social networking sites is weak.</p>	<p>positively by older adults and have positive effects on loneliness and social support.</p> <p>Telephone befriending has not been widely researched, but qualitative studies suggest improvements in loneliness and social isolation.</p> <p>Multi-tool interventions (PC, training, messaging, chat groups) show decreases in loneliness, but not always increases in social support.</p> <p>Detailed analysis of the intervention components, which focussed mainly on social support (an indicator of social isolation), shows that following characteristics are present in effective interventions, supporting:</p> <ul style="list-style-type: none"> • Development of close relationships • Interactions through ensuring participants share experiences/characteristics • Interactions through pastoral guidance??
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<p>Digital Communities Wales, 2021, good practice guide to digital for care homes Digital communities Wales: digital confidence, health and well-being</p>	<p>Guide aims to provide care homes with information required to understand how digital technology can be used. Digital Communities Wales provide training, information, and equipment to support care homes to implement changes.</p>	<p>Staff and leadership buy-in (need to consider confidence and skills of care home staff)</p> <p>Use of digital champions – doesn't specify if staff or resident – assume can be either.</p> <p>Quality internet connection crucial</p>

	<p>Gives specific advice on how to set up digital activities, how to ensure residents can benefit from accessibility features.</p>	<p>Digital devices – specific reference to tablets</p> <p>Training and guides – offered free by digital communities Wales</p> <p>Use a digital checklist (this can be viewed by clicking on left link – if potentially relevant)</p> <p>Activities to run can vary – suggestions include music, reminiscence, hobbies, TV show and entertainment, religious services.</p>
<p>Ory, M. G, 2021, COVID-19 as a “Digital Push?” Research Experiences From Long-Term Care and Recommendations for the Post-pandemic Era, Front. Public Health</p>	<p>*International research on challenges with digital uptake in care homes</p> <p>Review of research shows care home residents are less likely to take advantage of digital due to (a) opting not to use the Internet, (b) living in an environment where Internet access is not available, (c) not having sufficient support from inside or outside their nursing homes, and (d) having physical or cognitive limitations that limit or prevent ICT use without assistance.</p>	<p>Success of interventions to support internet use in care homes is highly dependent not only on the interest and motivation of residents but also, and even more importantly, on institutional mechanisms, support structures, and opportunities. So activities need to take this into account at the outset</p> <p>Need to consider connectivity, working with staff, carers and relatives, providing tailored support to those with health-related limitations.</p> <p>Understand digital engagement as a process,</p>

		<p>rather than an intervention, that requires continuous engagement and support, as well as adequate infrastructures and skills, for both residents and care staff.</p> <p>Developing and implementing a different perspective on digital technologies that understands technologies not merely as an artifact or an instrument but also as a learning process that needs to be professionally supported.</p> <p>Support care homes to build an adequate infrastructure to enable the digital engagement of their residents</p> <p>Giving residents the ICT skills and training that they need by providing free-of-charge learning opportunities and ICT support.</p>
Research and evaluation of activities		
Good Things Foundation Dementia Pathfinder	As part of the NHS Widening Digital Participation Pathfinder programme, Good	Person-centred design – provide opportunity for people to say what support might benefit

<p>Dementia and digital participation for health and wellbeing: supporting carers and people living with dementia</p>	<p>Things Foundation supported Leeds Library Service to deliver a Dementia Pathfinder in Leeds. This experimented with ways to support local organisations, carers and people living with dementia to engage with digital. The approach built on existing community assets, working with organisations and groups across the city, training Digital Champions, lending digital devices, and providing resources and ongoing face-to-face support.</p>	<p>them and provide in a setting that they trust. Through listening to participants - Leeds Library Service were able to purchase equipment that was more likely to benefit carers.</p> <p>Make the most of community assets: Working with existing local partners and building on community assets was an important focus for the pathfinder. Early on, Leeds Library Service did a mapping exercise to update existing information about services for carers and people with dementia.</p> <p>Provide digital champion training to carers, as well as staff and volunteers: Digital Champion training proved a positive way to build digital confidence. Making this available to a wide range of people helped to build wider buy-in from local organisations and carers' groups, and increase the potential for sustainability.</p> <p>Embed digital activities in community and carers' groups: Integrating digital</p>
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		<p>as an ongoing part of carers' groups and memory cafés helped both carers and support workers to develop digital confidence, in a supportive and social setting. It gave people confidence to try digital in different ways.</p>
<p>Good Things Foundation, 2020, Supporting Health and Social Care Staff to Embed Digital in the Workplace</p>	<p>Staff across 8 participating care homes (WDP programme) talked about supporting residents to benefit from a range of digital tools and platforms, including VR headsets, Fitbits, iPads, Amazon Alexa and Skype. The care home worked with the provider to identify ways in which staff could effectively introduce digital to residents: Reference to effectively using digital to support reminiscence and introducing digital as a regular activity or part of everyday life ("techie Wednesdays", Alexa introduced across a care home).</p> <p>As well as residents, staff were learning more about technology too, and using this to</p>	<p>Interventions that operate in care homes should look to:</p> <p>Provide support and training to staff</p> <p>Offer a range of tools and platforms, to identify those more suitable for the needs of residents</p> <p>Care homes should be supported to embed digital into the 'day to day'</p>

	offer further support to residents and their families.	
Good Things Foundation , Digital Health Labs: older people	<p>Through Pathfinder projects, explored how older people can be supported to engage with digital.</p> <p>As older people are increasingly being diagnosed with co-morbidities, digital skills relating to online appointments and viewing health records, can help them regain confidence and control over their health</p>	<p>Engage unpaid carers - they could be a key route into getting the people they care for digitally included and may themselves find benefit from these skills</p> <p>Consider accessibility: Signpost people who cannot afford technology to local library services/venues</p> <p>Pitch skills support right: Teach the basics first, including how to use the device safely. Think about how to offer tailored support to people with low confidence</p> <p>If “classroom based” teaching in small groups can help learners open up to each other and help with small problems.</p> <p>Classroom style learning will not be suited to all, consider offering one to one in a home environment or running more informal models.</p>
Good Things Foundation , 2020, Digital	Refers to two case studies based on social care referral model in	Thanet assisted living Go where people go: hosting digital inclusion

<p>Inclusion in Health and Care: Lessons learned from the NHS Widening Digital Participation Programme (2017-2020)</p> <p>Good Things Foundation, 2019, Designing digital skills interventions for older people</p>	<p>Sunderland (working with Age UK – worked with older people in deprived communities, acted as a referral route for social care) and using a peer led model in an assisted living facility in Thanet – where older residents were trained and supported to be digital champions (with this network reaching half of all residents across 7 schemes).</p> <p>71% of older and disabled people supported to use Learn My Way 2019/20 felt more independent as a result (Good Things 2020a)</p> <p>Also has useful learning for HCPs that may be useful across GM – so though less relevant here – may be useful to signpost.</p> <p>Housing associations have a growing and important role in enabling digital inclusion of older people with care and support needs. In Thanet, older people felt</p>	<p>sessions at assisted living facilities ensures that sessions are easily accessible for residents</p> <p>Digital champions were instrumental in shaping sessions to be more interesting and useful to other participants. They did this by prioritising the things that would improve people’s access and day-to-day experience of the internet. Since the pathfinder ended, the peer-led group has continued to thrive. Digital champions require ongoing support to help them help others.</p> <p>Co-design online services with people with low digital skills. – older residents were critical of poorly designed online services.</p> <p>Pay attention to disability and diversity: Many older disabled people had struggled to use the internet without accessibility features. Digital champions brought accessibility to the fore in sessions. Many people had disabilities and valued support with managing</p>
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	<p>their housing association could: (1) improve internet access and Wifi in communal areas and individual apartments; (2) improve their own website, especially log-ins; (3) find ways to bring down the costs of devices and data packages for residents.</p> <p>Access to online resources reduces isolation and increases wellbeing and personal confidence for people with dementia. The use of puzzles and games helps people with dementia feel they are keeping their brain active, and improves their sense of confidence and independence. The use of reminiscence tools, such as YouTube videos, engages individuals with hobbies, memories, people and places - improving their sense of wellbeing.</p> <p>Age-related, physical barriers can stop people using technology. It's essential to overcome any physical barriers</p>	<p>their anxieties about using the internet, learning to stay safe online, and finding the right devices and assistive tools.</p> <p>Provide good and affordable internet access.</p> <p>Digital aids and accessories should be included in workshop learning e.g Alexa can be used by people who find typing difficult</p> <p>Sunderland (Age UK) Linking to key staff can support ongoing digital use social care teams recognised the opportunity to build support for digital skills at a transition point: when older people are first referred to their service - the start of their social care journey (though assessed challenge in maintaining these links once funding ends).</p> <p>The social aspect of digital inclusion classes can be equally or more important to older people, helping to reduce loneliness. Outreach classes were held in community settings in more deprived</p>
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	<p>with adaptive equipment to ensure technology can be used successfully by people with dementia</p> <ul style="list-style-type: none"> ● Tablets more effective than keyboard and mouse for delivering digital inclusion training for people with dementia ● Tailored, personalised interfaces on screens (no superfluous icons) ● Use a 'multi sensory' approach to support people with digital (visual prompts, smells) 	<p>areas to reduce travel barriers that can prevent participation. Home visits were offered where this was more appropriate</p>
<p>Good Things Foundation, 2019, Intergenerational Digital Mentoring Anna Donaldson, Founder & CEO of Lively, gives us insight into their successful intergenerational learning model.</p>	<p>Mentoring model trains and employs young jobseekers aged 18-25 to help older people get online and use technology to connect, providing young people who are struggling to break into a job with valuable employment and experience. At the same time, focus on building meaningful connections between the young and older people who participate.</p>	<p>Ensure young people are trained to be digital mentors Many older people recounted experiences of asking their grandkids for help, only to have them whip through at a pace they couldn't follow, leaving them feeling silly and slow when they have to ask again. Part of the training is learning to empathise with a person who isn't familiar with technology and to ensure that they move at an appropriate pace.</p>

	<p>The employment model is that it provides extra dimensions of impact. Many young people who come to Lively hadn't previously thought about digital mentoring or working with older people – but find the experience so rewarding that it opens their mind to the possibility of working with older people in other ways, including in aged care. For many older people, knowing that they're supporting a young person's employment helps them feel more comfortable with the idea of taking all the time they need to get their heads around their technology questions.</p>	<p>One-to-one support: digital mentoring is always more effective when individualised support is offered.</p> <p>Friendly and informal environments avoid 'classroom' setups – more success when undertaken in comfortable and informal settings, such as a lounge, and preferably with morning or afternoon tea close to hand. We also know that coming along to a digital mentoring session can be a daunting step for many older people, so pay particular attention to providing a warm and friendly welcome to everyone who walks through the door.</p> <p>Interest-based learning don't have set programmes or 'curriculum'</p>
<p>Be Connected Evaluation This evaluation assessed the appropriateness, effectiveness and efficiency of the Be Connected program.</p>	<p>Australian context – includes interviews with participants 75+</p> <p>Identify local mentors, older adults themselves and can build trust.</p>	<p>Proximity to a community partner mitigates barriers caused by reduced mobility</p> <p>'The hook': hobbies and interests are key to getting older people interested in what the internet can offer them</p>

<p>By Good Things Foundation Australia • 12/03/2021</p>	<p>When interests of the individual are at the forefront of learning, digital skills are effectively shaped</p>	<p>Learning modules should be accessible to beginners and should assume no prior knowledge of digital skills – also offer one to one even in group settings</p> <p>Resources must be kept up to date in line with changes in technology and the needs of the community</p> <p>Online safety is of concern to many people so starting courses with safety modules helps to alleviate these fears.</p> <p>Recommend: taking small steps, avoiding jargon, pre-empt potential connectivity/access barriers, written notes are helpful</p> <p>Games can be a good introduction to using a device (e.g. building confidence with a touch screen) as they are familiar and can enable the learner to socialise with others online</p>
<p>Age UK, 2012, The digital inclusion of older people in care homes: Learning and</p>	<p>This is dated – have included due to high relevance based on GM priorities.</p>	<p>Importance of supporting training and confidence of staff, linking in with ICT expertise, and attending</p>

<p>good practice from Reach for IT</p>	<p>Reach for IT engaged with 20 care homes, where 34 volunteers delivered a broad range of IT training sessions to 234 residents.</p> <p>Learning around wide variation of care homes – not just in terms of size – but culture.</p>	<p>resident and family meetings.</p> <p>Reference to importance of factoring in issues around connectivity, access to devices etc. prior to training sessions – need to give regard to residents who require specialist software – also ensure tailored to needs of residents – so offer a range of different equipment</p> <p>Need to give regard to care home scheduling/times.</p> <p>Incorporate an element of ‘training the trainer’, so the staff member feels confident and empowered to train and empower residents.</p> <p>Match volunteers and residents</p> <p>Encourage an approach that gives the resident access to equipment outside training sessions.</p> <p>For those with cognitive impairment need to factor in: the need to repeat information – also offer flexibility.</p>
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<p>One Digital Programme</p> <p>Embedding digital inclusion through Digital Champion approaches: lessons learned</p>	<p>Age UK worked with nine local Age UKs to recruit and train specialist volunteer Digital Champions focused on the needs of older people. The Digital Champions were integrated into the local community.</p> <p>Some participants were over 70 – e.g. South Lakeland – 41% were aged 70+ (some were aged between 80 and 90)</p>	<p>Loaning tablets for an extended time allows learners to become familiar with the device at their own pace</p> <p>Digital Champions believe that one-to-one home sessions are the most effective way to support older people although they are resource intensive</p> <p>Matching IT volunteers with clients</p> <p>When learning in group settings, high ratios of Digital Champions ensure learners get the extra</p>

		<p>support they need, with the option of one-to-one sessions</p> <p>Digital Champions with language teaching experience can run specialised ESOL/digital skills sessions</p>
<p>Age UK (Alden et al.,) Think Digital programme 2021 (this offers a detailed process evaluation – to support the outcome evaluation)</p> <p>Offered tailored one to one online support – using younger and older trained digital champions.</p>	<p>Think Digital Age UK, with funding provided by Santander, supported five local partners to support older people to develop their digital skills through individually tailored support. Each area employed a Digital Coordinator to offer training and support to staff and volunteer Digital Champions. Due to Covid-19 restrictions training and support via telephone/or socially distanced face to face (such as in a Tesco carpark).</p> <p>Learning perceived as particularly relevant to 75+ due to high assessed proportion of participants with complex and multiple health conditions, sensory and cognitive impairment, limited mobility (including in</p>	<p>through carrying out interviews with participants at least a month following formal support via a digital champion found that the following factors helped people to maintain digital skills (thus reducing risk of becoming a lapsed user:</p> <ul style="list-style-type: none"> ● Offering ongoing-light touch support (e.g. providing a phone number where someone could check on something they had forgotten) ● Provision of easy to follow – step by step instructions of what was taught following the sessions <p>One Digital and Think Digital Proven models that tend to work with older people to use digital include peer support, flexibility, the</p>

	<p>the hands), and hearing and visual impairments. Many were also shielding due to Covid, mainly living alone and retired. Some also struggled due to affordability.</p> <p>Older carers and those with health conditions that meant they were housebound expressed preference for online digital champion support – once they had grasped how to use digital – as it was assessed as more convenient, a few expressed they could not in fact attend face to face – so had in fact been excluded from Age UK face to face digital support.</p> <p>Some older people (including those in their 70s) identified that they were ‘missing out’ when Covid hit – and they were no longer able to participate in the things they had previously enjoyed (e.g., going to church)</p> <p>Follow ups showed nearly all those</p>	<p>right language, appropriate regard for accessibility, time to build trust, the right pace, and ongoing support.</p> <p>Tailor service to an interest or need – and not as ‘digital skills’.</p> <p>Factor in time to offer access related signposting (signposting to Age UK services that support financial checks/cheaper equipment)</p> <p>Supplement with written step by step resources.</p> <p>Digital champion mentoring models -- both with older peer and young volunteers achieved positive outcomes for participants in their late 70s and 80s discussing how digital champions contributed to improved skills, confidence, self-esteem and motivation.</p> <p>Importance of identifying a ‘hook’ for some participants the main ‘hook’ was to remain independent and avoid going into a care home – the champions therefore</p>
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	<p>interviewed had continued to use and develop their digital skills after the support ended.</p>	<p>shaped the learning around online financial transactions (such as shopping and banking online when they could no longer drive). Others were unable to attend their local church due to shielding – so were supported to access it via zoom (with one discovering she could zoom in on Vatican services – and began attending services ‘across the world’)</p> <p>Offering ongoing- light touch support assessed as useful – and longitudinal data suggests contributes to people maintaining digital skills – thus reducing risk of becoming a lapsed user)</p> <p>Recommend drawing on lived experience when designing interventions; the value of a place-based approach (being a known organisation, ease of signposting to local services.</p>
<p>Evaluation of the Digital Angels project (Age UK Leeds) Alden and Wigfield, 2018</p>	<p>The project supported older people/care home residents to get online as well as helping them to network in their local communities, such as through running digital</p>	<p>To ensure that particularly isolated, or housebound older people are reached, the project team felt that running a digital inclusion project that was not</p>

	<p>tea parties in community centres and libraries</p> <p>Though older people attended group online sessions and engaged with online learning, volunteer trainers observed that many turned up to meet others in their local area: "I found people who turn up for groups were doing it more for social than technical reasons, some didn't turn the machines on... they really appreciated getting out of the house" (Volunteer)</p>	<p>classroom based, was particularly important.</p> <p>Need to factor in sufficient time to support people to get online (needed to double the initial duration of support)</p>
<p>BLCF (Big Lottery Community Fund) 21, Can the use of technology help to reduce social isolation and loneliness? An in-depth study of digital inclusion projects for older people living with, or at risk, of social isolation and loneliness before and during the COVID-19 pandemic</p>	<p>Qualitative research: 9 interviewees – 7 were over 75. Of 83 participants – 51 were over 75.</p> <p>This report shares learning from an in-depth study of two Connect Hackney digital inclusion (DI) projects – @online club and Silver Connections – which were delivered by local community organisations. @online clubs were 8-week group sessions which aimed to build older people's skills in using a</p>	<p>Project location can influence the diversity of participants attending projects – with some requiring targeted outreach – this included: men and older residents from Asian and Chinese communities. Ensure sufficient capacity for dedicated outreach, promotional work and relationship building with other organisations to reach these participants.</p> <p>Provide a warm, social learning environment; focus on basic technical content using plain</p>

	<p>tablet device while Silver Connections groups were 6-week group sessions in using a smartphone. Both projects aimed to develop participants' confidence and skills in using applications ('Apps') and the internet – which evaluation findings show were achieved.</p>	<p>English and simple analogies.</p> <p>Employ facilitators with high levels of social and communication skills</p> <p>Attend proactively to accessibility issues to support participants with physical, cognitive, or sensory impairments.</p>
<p>BLCF, 2021, Micro Funding Digital Inclusion Learning from Ageing Better in Birmingham</p>	<p>This is targeted at over 50s – though specifically those affected by loneliness and social isolation – which is statistically a particular issue for people 75+</p> <p>This is also an interesting 'micro funding' model.</p> <p>Issues identified included: some participants reported feelings of embarrassment about their lack of digital skills. Differing COVID vulnerability levels meant some members were more likely to continue shielding when in-person activity was allowed, leading to potentially discordant group dynamics</p>	<p>Peer support from group members and/or younger family members was crucial to sustaining participation, especially for those who initially struggled to use new technology.</p> <p>Participants showed strong commitment to connecting online with peers, which helped motivate them to sustain participation and build the confidence to learn something new.</p>

	<p>between those that could and couldn't meet in person.</p> <p>Once online, people report using the internet for other activities such as shopping, playing games, connecting with family, reading news and exercise classes etc.</p> <p>Reference to specific challenges running online activities and reports of technical issues.</p>	
<p>HMR Circle, 2020, Bridging the Digital Divide (Greater Manchester organisation – case studies included later)</p>	<p>* Based on a survey administered online and paper (210 responses). Half (49%) of respondents were 75+ (a further 22.3% were 70-75 years)</p> <p>Included paper, as well as online survey platform.</p> <p>This report identifies the reasons for the digital divide experienced by HMR Circle members.</p> <p>The main barriers to digital technology for older people include lack of knowledge,</p>	<p>Older people prefer to learn in an informal environment, where learning can be tailored to their specific needs.</p> <p>HMR Circle applied services based on the feedback, including promoting digital services to raise awareness of the benefits of digital, as well as running introductory level informal workshops</p> <p>Supporting accessibility: allocated budget to purchasing 4G dongles to provide internet access to all members who own or borrow a device - whilst</p>

	<p>absence of faith in security and privacy, limited self-confidence, and apathy.</p> <p>3 in every 4 HMR Circle members who completed the survey worry about being scammed.</p>	<p>HMR Circle await their funding to provide WiFi for members. Also building a partnership with BT to arrange affordable WiFi connection deals for HMR Circle members.</p> <p>Recruiting digital support volunteers – focus on one to one peer support from practical helpers who currently volunteer with HMR Circle in informal environments.</p> <p>Also running more formal workshop to help upgrade skills – including around safety and use of apps – with Good Things Foundation.</p>
<p>Hackney Council Buddy system (intergenerational)</p>	<p>Hackney created a Buddy System to help connect local school-age (16-18 years) volunteers with older residents to support them getting online.</p> <p>Adapted the buddy system developed by the Salford Foundation to provide one-to-one tuition (digital skills training) by younger volunteers. Every buddy is required to go</p>	<p>For scalability - ensure that the scheme is volunteer-based. Existing resource - Hackney utilised current cohort of ICT Support Apprentices and made volunteering a part of their training.</p> <p>Set clear expectations to all sides (volunteers and older residents)</p> <p>Take the time to understand the motivations of older people before rolling out</p>

	<p>through a training programme.</p> <p>Beyond staff time, the scheme did not incur any additional costs. The resources had already been created by Salford Foundation, and further resources have since been developed by the Hackney team and are available for reuse.</p>	<p>specific courses/subject matter</p> <p>Not everyone can be helped directly, but it's important to still support those whose needs cannot be met through the scheme through effective signposting (Digital skills, AbilityNet)</p> <p>Marketing is key - circulate offline materials, and online, create engaging content such as social media posts and videos. For ease, standardise copy so it's ready to go, and repeat.</p> <p>Relationships - encourage those with healthy and effective relationships with schools to support the scheme.</p>
<p>Fincap.org.uk, 2018, Get £ F+IT - does increasing the digital skills of older people increase their financial capability?</p>	<p>Run by Cornwall Rural Community Charity (CRCC) and aimed at 60+ The target group experienced a range of accessibility and deprivation issues - aimed to increase digital financial literacy and capability. Activities focused on developing participants online skills to manage their money, through six half-day digital</p>	<p>Being 'hyper local', finding venues that older people could walk or 'scoot' to worked well.</p> <p>Ensuring the right format was important. Fun and engaging content that was applicable to the needs of older people helped to maintain participants' interest.</p> <p>Recruiting and supporting local community</p>

	<p>inclusion sessions. Tools and online resources were also provided. The project was delivered by three members of staff, and local community volunteers. 132 people participated in the programme.</p> <p>Outcomes showed improvement to digital literacy</p>	<p>volunteers led to peer-to-peer support and the on-going championing of financial capability.</p> <p>Maintaining partnerships helps provide participants with wraparound support (e.g. care planning, benefits take-up, debt advice).</p> <p>Co-design: older people are an invaluable resource, and were an integral part of, the project. They helped CRCC design and deliver the project. Some participants became volunteers ('community champions'), to continue developing financial capability in rural communities after the project.</p>
<p>Lewisham Council and libraries, and the Greater London Authority (GLA)</p> <p>Organisations Involved: Lewisham Council and libraries, and the Greater London Authority (GLA) London, UK</p>	<p>As with most interventions – this discontinued once funding ended.</p> <p>The pilot tested the viability of lending tablets with mobile internet access and basic digital skills training, as a way of reducing digital exclusion in the capital.</p>	<p>Supporting accessibility through equipment and data access may be insufficient for some without more resource and time provided to develop skills.</p> <p>Need to factor in cost – particularly where access to technology or data is time limited – importance of offering public access to WI-FI</p>

	<p>Targeted toward Londoners over the age of 55, in receipt of benefits, and disabled or housebound</p> <p>Tablets were lent via borough libraries and other community centres.</p> <p>Outcomes: predominately older Londoners, nearly half said they would consider buying their own devices – over 50% felt they needed more training.</p> <p>Linked likelihood of borrowing a tablet to access to training.</p>	<p>Recommend community venues such as libraries to provide access point to lending and training – working as connectors/gateways</p>
<p>Lee, Othelia Eun-Kyoung; Kim, Do-Hong (2018). Bridging the Digital Divide for Older Adults via Intergenerational Mentor-Up. Research on Social Work Practice</p>	<p>*USA based research setting</p> <p>A total of 55 older adults (mean age = 73.82) based in residential settings participated in six-session tutorials. Positive outcomes reported - eHealth literacy, technophobia, self- efficacy, interest, self-confidence, and social isolation, demonstrated medium to large effect sizes.</p>	<p>Adopt an active learning approach environment focused on producing intergenerational relationships that can help older adults to perceive the benefits and efficacy of the Internet. Taking a more learner-centred approach may facilitate behaviour change to comprehend and adapt to new technology. Older people were asked what they wanted to learn prior to each session – then paired with an appropriate</p>

		<p>mentor who was best placed to support this.</p> <p>Ensure training adopts cultural sensitivity when communicating with older people.</p>
<p>Breck BM, Dennis CB, Leedahl SN. Implementing reverse mentoring to address social isolation among older adults. J Gerontol Soc Work. 2018 Jul;61(5):513-525.</p>	<p>Reverse mentoring can improve social connection by increasing the digital competence of older adults so they can use technology for social benefit, and by facilitating intergenerational connections with young adult mentors.</p> <p>In this paper, reverse mentoring is examined within an intergenerational program that serves older adults and utilizes the native technological knowledge and skills of young adults who mentor older adult participants.</p>	<p>Qualitative analysis revealed three themes related to social connection:</p> <p>(1) an increased sense of self-efficacy for older adults as they build confidence in technological use, and for young adults as they develop leadership skills through mentoring,</p> <p>(2) the breaking down of age-related stereotypes, and</p> <p>(3) intergenerational engagement and connection.</p> <p>The findings demonstrate that reverse mentoring can be used in various settings to decrease the social isolation of older adults by developing intergenerational connections and increasing older adult usage of technology.</p>

<p>Journal of Gerontechnology The iPad project: Introducing iPads into care homes in the UK to support digital inclusion</p>	<p>N.b. project from 2011 This article explores the experiences and potential benefits and barriers of iPad use in 63 care homes for residents with dementia, their family/friends and care staff and considers ways in which iPads can be used in care settings.</p> <p>Barriers to the deployment of technologies for use by professionals, which could affect use in care homes. These include lack of usability; problems with access to the health IT applications; low computer literacy in patients and clinicians; insufficient basic formal training in health IT applications; physicians' concerns about more work; workflow issues; problems related to new system implementation, including concerns about confidentiality of patient information; depersonalization; and incompatibility with</p>	<p>iPads provided a flexible and adaptable means of engaging residents, their relatives and staff in both one-to-one and group sessions – though some issues around touch sensitivity for residents.</p> <p>Though relatively low cost for the iPads – need to consider initial outlay and need to consider provision of support.</p> <p>iPads offered a new means to increase social interaction and resident engagement.</p> <p>Suggestions for interventions: Need a comprehensive IT infrastructure, training and support, provision of iPad, identify staff to manage the iPads</p>
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	current health care practices	
Othelia Eun-Kyoung Lee and Do-Hong Kim, Bridging the Digital Divide for Older Adults via Intergenerational Mentor-Up, Research on Social Work Practice 2019, Vol. 29(7) 786-795	*USA based Intervention that engaged college students in tutoring older adults (n= 55, mean age 73.82), participated in tutorials – found significant improvement in eHealth literacy, technophobia, self-efficacy, and interest in technology. Intergenerational interaction helped to decrease social isolation among older adults.	One to one - personalised training, helped to decrease anxiety and boost confidence.
Martínez-Alcalá, Claudia I.; Rosales-Lagarde, Alejandra; Alonso-Lavernia, María de los Ángeles; Ramírez-Salvador, José Á.; Jiménez-Rodríguez, Brenda; Cepeda-Rebollar, Rosario M.; López-Noguerola, José Sócrates; Bautista-Díaz, María Leticia; Agis-Juárez, Raúl Azael (2018). Digital Inclusion in Older Adults: A Comparison	*Mexico based study – average age for men 73 years. This study involved 98 adults aged 60 and above, 72 Females (68.5 ± 6.9) and 26 Males (73.3 ± 7.4). 61 older adults participated in the face-to-face workshop (FFG) on digital literacy and 37 participated in a blended workshop (BLG).	Conclude that older adults learn digital literacy skills in different environments/settings - as long as they are strongly motivated, or they know the functional benefits related to ICT.

<p>Between Face-to-Face and Blended Digital Literacy Workshops. Frontiers in ICT, 5(), 21-. doi:10.3389/fict.2018.00021</p>		
<p>López Seguí F, de San Pedro M, Aumatell Verges E, Simó Algado S, Garcia Cuyàs F An Intergenerational Information and Communications Technology Learning Project to Improve Digital Skills: User Satisfaction Evaluation JMIR Aging 2019;2(2):e13939</p>	<p>Digital Partners” is a digital learning project carried out in Catalonia from April to May 2018. Created a training space with 38 intergenerational partners (aged 14-15 years and >65 years), with the aim of improving the older person’s digital skills in terms of use of smartphones and tablets. Project was evaluated</p>	<p>Ensure older people have the chance to practice with the device</p> <p>Ensure it is holistic: individuals choose what they wished to learn</p> <p>Provision of written materials.</p> <p>Recommend ensuring sufficient time during sessions and increasing number of sessions to reflect level of support needs.</p>
<p>Haase KR, Cosco T, Kervin L, Riadi I, O’Connell ME Older Adults’ Experiences With Using Technology for Socialization During the COVID-19 Pandemic: Cross-sectional Survey Study JMIR Aging 2021;4(2):e28010</p>	<p>Focus on 65+, Canadian context - conducted a cross-sectional, population-based, regionally representative survey by using the random-digit dialing method to reach participants aged >65 years who live in British Columbia - 400 adult’s average age. 72.</p>	<p>Activities should look to apply elements of identified facilitators – including linking in with family and friends, giving regard to access and accessibility and explore ways to motivate older people through linking digital to an interest.</p>

	<p>Older adults reported the following key barriers to using technology: (1) a lack of access (including finance, knowledge, and age-related issues); (2) a lack of interest (including a preference for telephones and a general lack of interest in computers); and (3) physical barriers (resultant of cognitive impairments, stroke, and arthritis).</p> <p>Facilitators: (1) a knowledge of technologies (from self-teaching or external courses); (2) reliance on others (family, friends, and general internet searches); (3) technology accessibility (including appropriate environments, user-friendly technology, and clear instructions); and (4) social motivation (everyone else is doing it).</p>	
<p>Based on DIGITOL Context analysis report: A cross-country analysis of digital</p>	<p>Considers needs and preferences of older adults for digital and media literacy training with a focus on</p>	<p>Training should give regard to practical and accessibility needs</p>

<p>literacy training for generations to combat fake news together (Erasmus + programme of the EU)</p>	<p>combating disinformation and hate speech online – covers Bulgaria, Germany, Greece, and Italy. Most older people are trained, most initiatives focus on digital skills to use digital devices and the Internet but very few address how to understand and interact with online content.</p>	<p>Ensure training content is tailored</p> <p>Trainers need strong social skills of – especially in interpersonal relationships, as well as a participatory and collaborative atmosphere ensuring mutual respect and ownership by participants from all age groups.</p> <p>*This article references a range of intergenerational initiatives across the participating countries.</p>
<p>Chen YR, Schulz PJ The Effect of Information Communication Technology Interventions on Reducing Social Isolation in the revy: A Systematic Review J Med Internet Res 2016;18(1):e18</p>	<p>*It isn't clear what age parameters are used for this review Mixed evidence about interaction between the internet and loneliness for older people</p> <p>High drop off rates in studies imply that digital skills (at least in the form provided by the studies) is not suitable for everyone</p>	<p>YouTube enables older people to engage with younger people outside of their family circle that share similar interests</p>
<p>Seifert A, Cotten SR, Xie B. A Double Burden of Exclusion? Digital and Social Exclusion of Older Adults in Times of COVID-19. J Gerontol B Psychol</p>	<p>*international in scope</p> <p>Older adults who are frail and/or live in a care home and are not online struggle with the double burden of social exclusion.</p>	<p>Interventions need to train and support staff who may need to in turn support care home residents with cognitive impairment who may require assistance to use digital.</p>

<p>Sci Soc Sci. 2021 Feb 17;76(3):e99-e103. doi: 10.1093/geronb/gbaa098. PMID: 32672332; PMCID: PMC7454901.</p>		<p>Providing equipment/access alone insufficient – need to couple with skills support.</p>
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Table Five: Smart homes/digitally enabled household appliances

<p>Wider evidence base</p>		
<p>Housinglin, Sept 2021, The TAPPI Inquiry Report: Technology for our Ageing Population: Panel for Innovation – Phase One</p> <p>TAPPI = Technology for our Ageing Population Panel for Innovation</p>	<p>Although this article focuses more on design elements, and therefore out of scope – have included as it provides a useful overview of what should be considered</p>	<p>Ten foundational TAPPI principles: Adaptable; Co-produced; Quality focused; Cost effective; Choice-led; Preventative; Person-Centre; Interoperable; Outcome-focused; Inclusive</p>
<p>NIHR, 2018, Help at home – use of assistive technology for older people</p>	<p>This review presents a selection of recent research on assistive technology for older people funded by the National Institute for Health Research (NIHR) and other government funders.</p> <p>Important to understand how older people use technology in the home – less research focus on this.</p>	<p>Refer to the need to engage with community nurses, OCTs and similar when supporting older people to use digital in the home.</p> <p>Reference to research which found that installation was often wrongly seen as a one-off event, rather than an ongoing process for getting the best out of the technology.</p>

	Reference to the fact that research has tended to focus on more high-end tech rather than more basic devices that support day to day tasks	Overall, this study found that users of telecare often struggle to understand and engage with the technology in their homes with most depending on existing networks, including family carers and volunteers.
Ghorayeb, Abir; Comber, Rob; Gooberman-Hill, Rachael (2020). Older Adults' Perspectives of Smart Home Technology: Are We Developing the Technology That Older People Want?. International Journal of Human-Computer Studies, (), 102571-. doi:10.1016/j.ijhcs.2020.102571	Participants have different understandings of smart home technologies. Among participants who had already tried it, acceptance increased over time and with use. They expressed fewer concerns than non-smart homes participants regarding privacy, trust, usability, and more concerns about utility.	Older people must be able to know how, where and what kind of information is transmitted. Older people need to see the benefit of the technology, to be able to customize it and to have control over it. The technology needs to be able to be 'self-taught'. Family members, children, and carers may influence older people's adoption of new technology and could be included in discussions about it.
Cannizzaro S, et al (2020), Trust in the smart home: Findings from a nationally representative	Older people were the least trusting about smart home device reliability	Suggest need for interventions to work on building trust and confidence – this will likely require one to one holistic support –

<p>survey in the UK. PLoS ONE 15 (5).</p>		<p>potentially in the older person's home.</p>
<p>Jo TH, Ma JH, Cha SH. Elderly Perception on the Internet of Things-Based Integrated Smart-Home System. Sensors (Basel). 2021;21(4):1284. Published 2021 Feb 11. doi:10.3390/s21041284</p>	<p>*international study Evaluated benefits and negative responses. A set of sensors required for an ISHS was determined, and interviews were designed based on four factors – identified via an evidence review as important factors supporting adoption: perceived comfort, perceived usability, perceived privacy, and perceived benefit. Subsequently, technological trials of the sensor-set followed by two focus group interviews were conducted on nine independently living elderly participants at a senior welfare centre in South Korea.</p>	<p>Identified a need to raise sufficient awareness regarding the potential benefits of smart technology for the home (as well development of ensuring “age friendly”) design</p>
<p>‘Smart homes’ to help older and disabled people get digital skills and tackle loneliness in rural areas The scheme is part of funding from DCMS awarded to innovative projects to help people develop digital skills</p>	<p>A number of ‘smart homes’ with digitally savvy older people demonstrating tech in their own homes are being created as part of an innovative scheme to boost the nation’s digital skills. The homes, to be created in rural West</p>	<p>Though still running – a useful model which adopts peer support to increase confidence and skills around smart home tech.</p>

	<p>Essex by a partnership led by Uttlesford Council for Voluntary Service, will see home owners become trained 'digital boomers' to help others improve their digital skills. They will receive a digital assessment, before having their homes 'kitted out' in tech.</p> <p>The experts will then open their homes for older people to visit so they can learn first hand from their peers how to make the most of smart technology to control household appliances, book GP appointments online, contact friends and family by video, and shop online. Younger, 'digital buddies' will also be on hand to support with digital skills.</p>	
<p>Barnicoat, G., Danson, M., 2015, The ageing population and smart metering: A field study of householders' attitudes and behaviours towards energy use in Scotland, Energy Research & Social Science, Volume</p>	<p>Reference to price being one of chief factors when purchasing smart tech.</p> <p>Identified older people who struggled to understand how to use smart meter – examples of people</p>	<p>Feedback suggested some older people preferred to learn how to self-manage e.g. gas CH through a smart device – and did not wish this to be controlled by an external supplier – due to perception of losing</p>

<p>9, September 2015, Pages 107-115</p>	<p>using more expensive options due to operational difficulties (e.g. using an immersion heater as unable to boil kettle)</p> <p>Many older people across the UK show no wish to switch and have little knowledge of smart technology. In all, individually and as a group there is a lack of awareness of the changing energy technologies with little evidence of peer pressure or other drivers to change behaviour</p>	<p>freedom and choice – though there was some move toward acceptance of this if it meant saving money.</p> <p>Following (S. Darby, E. McKenna, Social implications of residential demand response in cool temperate climates, Energy Policy 49 (2012) 759–769): uptake would be facilitated through a series of features being embedded into supply contracts: simple, clear tariffs; data privacy and security; good feedback systems for both consumers and suppliers; and better customer education.</p>
<p>CfAB, 2021, The Good Home Enquiry, Enhancing our homes through digital connectivity, CfAB.</p>	<p>The increasing use of digitally enabled technology within the home means that anyone left without a good internet connection or the skills to make use of it will be left at a disadvantage.</p> <p>Currently the language of connectivity and technology does not resonate with significant numbers of people, so engagement</p>	<p>Highlight a need for ongoing awareness-raising and education on the benefits, potential and opportunities of digital connectivity and the associated applications and devices as well as support for people to understand issues of data use, consent and security.</p> <p>Important to address access and affordability issues due to cost – this</p>

	is a challenge as is getting information to those who need it most and in ways that register with people.	can be positive (e.g. highlight savings) – though also support around initial outlay (purchasing DEA)
Greater Manchester context		
Feedback from GMOPN (GM OP network) (obtained via email from Jo and Bernadette Elder, CEO, Inspiring Communities Together, AFS delivery lead	<p>Identified widespread issues - a gap in skills and confidence to use digital appliances is having a significant negative impact on older people's ability to live independently. Bury's social prescribing service, most of the older people said they had issues with digital equipment from washing and drying machines, microwaves, thermostats for the central heating boilers and cars and services which have a digital interface such as smart ticket readers on public transport. Examples provided:</p> <ul style="list-style-type: none"> An older woman pays her cleaner to go to her house to switch on her washing machine, the reason being it's 	<p>Interventions that focus on helping people 75+ learn how to use DEAs.</p> <p>Care & Repair Manchester's handy person service provides some technical support, but this is beyond the formal remit of their contact. They have 11 handy persons visiting around 7,000 people in their homes every year – help with tuning TVs and setting up virtual assistants such as Alexa. Their support doesn't currently include internet related support, but they would like to do more</p>

	<p>digital and she's frightened of it</p> <ul style="list-style-type: none">• An older man who trailed around every shop to try and buy a non-digital washing machine, but he couldn't get one• An older woman had her heating on during the recent warm spell because she didn't know how to switch it off• Older people seen asking for help at tram stops to use their travel pass on yellow smart readers the Metrolink <p>Suggest wider digital inclusion issues around household appliances are more pressing for over 75s than access to the internet, having a negative impact on their wellbeing and ability to live independently (important to note there is limited evidence as to whether this is something that can be said for the 75+</p>	
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	<p>population more generally).</p> <p>Supporting 75+ to use DEA can be steppingstone to getting online.</p>	
<p>Feedback from Salford (AFS)</p> <p>Discussion took place as part of virtual Brew and Chat session</p> <p>Number of participants: 14</p> <p>Number of volunteers:4</p>	<p>Participants were asked what their thoughts were on the wider use of digital equipment. Response was mixed – some felt it would be useful, others worried about privacy, safety and choice.</p> <p>Examples of participants embracing:</p> <p>**Jane explained that she had left her mobile on the bus and called it, when the driver answered he said he was passing her house and gave a time...she asked Alexa to remind her to collect it at the time the driver gave her, without doing that she could quite easily of forgotten.</p> <p>AND</p> <p>**Margaret I have a new security system,</p>	<p>Offer responsible and flexible support identified as a useful exercise as highlighted an opportunity to explore the wider digital agenda when delivering tech and tea. Volunteers offered advice and resource links during the session (e.g. IoTs in accessible language, using Bluetooth to set temperature, information about smart meters) – also looking to identify someone to come to a session to discuss smart meters in response to this being assessed as useful. Concerns also to be addressed during a “tech and tea” session</p> <p>Service also promotes use of youtube to find how to guides and often share links or watch together as part of the session to help people build their confidence to try new technologies.</p>

	which take photos of anyone at my door. I find this very reassuring.	Advice from volunteers who can relate own experience (e.g. of volunteer talking about her Bluetooth hearing aids)
bryonie.shaw@ageukwiganborough.org.uk (Age UK Wigan)	Based on discussions with home help and handy person services and we do have a number of examples where our older customers really struggle digitally with items around the home	HH and HP service help customers setting up TVs, telephones and answer machines. The HHs have also said if family live away the HH have followed the family's instructions to sort the problem especially this time of year when the clocks change.
Dorothy Evans MSc, MCMI, Chief Executive, African Caribbean Care Group	Service users report difficulty using DEA – reference to it being “fidgety” and “complicated” – reference to struggling to use a microwave or being unable to read and follow instructions due to language or sensory barriers (e.g. eyesight problems). An 81 year old attributed DEHA to losing her independence – due to becoming reliant on others.	Identifies a need for services to focus on supporting independence through helping people to feel safe/comfortable using DEA.
Trafford Carers, Michelle Grogan	Examples of carers struggling to	This expresses a real need to fund resources

	<p>understand instructions for an oven – which directs person to go online to find out more – but they don’t have the means to get online.</p> <p>Also examples of carers not using a smart meter or heating – with one “sat in the cold” due to not knowing how to use the auto functions and not wanting to be “constantly calling on people”</p>	<p>that can offer tailored support – feedback showing negative impact on independence, and also potential negative impact on health (“sitting in the cold”)</p>
<p>Aidan Mcilroy, Digital Inclusion Officer, Didsbury Good Neighbours</p>	<p>Provide examples of participants struggled to set up Smart TV, a dashcam and a microwave – though do not receive many enquires (though acknowledged service is aimed at supporting older people to get online)</p> <p>“My personal opinion is that this particular aspect of digital inclusion is one that will surface a generation down the line as the technology becomes more affordable and accessible over time,</p>	<p>Worker referred to offering tailored, one off support to help someone understand microwave settings – who wrote down clear and simple instructions following a demonstration – however – this is not part of the service offer – which focuses on going online.</p> <p>Also need to consider if require ongoing support – based on evidence to support 75+ to go online – it seems reasonable to suggest the need for tailored, ongoing support will also be</p>

	whereas the current generation of senior citizens are still overcoming a reluctance to engage with technology on a fundamental level, let alone smart household appliances.”	required to help with DEHA
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Appendix 2: Search strategy

Research Plan: collation of evidence across Greater Manchester and elsewhere of activities that have aimed to engage older people digitally, focusing on those over 75 years old.

The search strategy will cover national and GM level academic and grey literature and its purpose is to inform a blueprint and more detailed report (the latter will provide details of the evidence collation – including key gaps).

1. National and GMCA level overview/context, information relating to:

This stage will provide an overview of the wider digital context for 75+, with a focus on inequalities experienced by particular groups, will look at:

- Digital access, confidence, skills and motivation for 75+
- Key stats around risk factors relevant to this demographic (e.g. health, comorbidities, living alone, carer status, other inequalities as identified through the search)
- Index of multiple deprivation and GM - digital exclusion risk index tool.

2. Mapping the solutions

a, Evidence review of what works/does not work/barriers/enablers/gaps etc:

- Documents provided through GMCA (including from Joe's 'call for evidence', any other resources)
- Internal review of Good Things Foundation and other research resources (e.g. previous D.I work; evidence been involved with/are aware of)
- Desk based academic and grey literature review (covering evidence reviews, reports, monitoring and evaluation).

We already know there is a lack of evidence of what works for the 75+ group – this search will be pragmatic and draw on evidence related to known risk factors for this age group. Evidence will focus on: a, processes (e.g., key learning such as ensuring intervention is person-centred) b, outcomes (e.g. which models are most effective for developing skills of 75+ etc.)

b, good practice examples (case studies, blogs, briefings etc.)

- Desk-based search and targeted search of key GM organisations/funders (e.g. NIHR – Greater Manchester; Manchester university NHS foundation trust/Great Manchester ICS; Age UK; National lottery community fund; United for all ages)
- Internal review of Good Things Foundation evidence

- Examples of good practice will shine spotlight on GMCA context AND prioritise 75+ OR targets relevant groups (e.g. OP, cognitive impairment) OR provides a solution to a known barrier to 75+ (e.g. lack of skills)

Keywords

Mix of generic terms: e.g. digital

inclusion/exclusion/accessibility/connectivity/divide/technology

75+ (with specific local keywords for GM area); older people (generic; 65+ - will identify if these stratify findings for 75+ will also search terms used to describe older people ('elderly' 'pensioners' etc.)); this will mainly draw on variables in table below.

Will search for all age examples of services and interventions/evidence reviews if potentially split by age group (reverse mentoring, befriending, tackling social isolation, skills and confidence training etc)

Identified GMCA priorities (focus for blueprint):

1, Reverse mentoring

2, Fear of digital (tackling confidence/motivation

Table: Main search parameters

<h3>Population</h3>

- | |
|---|
| <ul style="list-style-type: none">• Older people living across Greater Manchester |
|---|

- 75+ (first level)
- Older age (i.e., all OP, people over 65)
- Older people with health or care needs (disability, LTHC) including though not limited to: arthritis, asthma, diabetes, epilepsy, angina, heart failure, high blood pressure (hypertension), COPD, cognitive impairment, falls risk, MSK, sensory impairment. Focus on conditions more likely to be experienced by 75+ (cognitive impairment, physical, sensory etc. multimorbidity/comorbidly, frailty)
- Specific communities (will be overlap here with other variables): older people from minority ethnic groups (focus on Bangladeshi backgrounds – identified as having challenges in terms of health and deprivation across GM; language groups (Pakistani, Bangladeshi), Chinese population; the deaf community; LGBT; faith groups
- Socio-economic status: focus on lower income groups, low educational attainment, social housing (based on evidence of indicators of deprivation)
- People living alone without family support (e.g.: Ageing without Children, also overlap with some community groups e.g., LGBT community, single women)
- Older people who are lonely and socially isolated
- Older carers

Services and intervention type (though have split out the below – these overlap – particular 1 and 2)

1, Addressing access/accessibility skills and confidence, and motivation barriers

- Financial support to gain Wi-Fi (public and private settings)
- Digital skills training (including staff): financial, accessing health, using tools, refresher training for lapsed users etc.
- Supporting people to stay safe online and get support if things go wrong
- Social prescribing
- Examples of collaborations/translating knowledge across different settings – e.g. GPs

2, Providing support with data connectivity and devices (supporting independence) to include support around using digital devices in the home – e.g., digital operated heating

- Provision/lending of equipment
- Support to use digital equipment
- Assistive technology

3, Mentoring approaches

- Intergenerational mentoring
- Reverse peer approaches
- peer to peer support/digital champions

4, Social inclusion activities

- Befriending
- Social connection (reducing loneliness and social isolation)

- Virtual activities (e.g., coffee mornings, exercise classes, art and culture based)

Co-design/coproduction approaches?

Any examples of 75+ contributing to design or delivery of services and interventions

Within this – will focus on design and delivery mechanisms, promotional tips, any learning or feedback collated, evidence of outcomes/impact.

Location

- Providing support in the home
- Providing support in community/health and care settings
- Providing support in care homes (residential and nursing, sheltered housing and similar support housing schemes)

OUTPUT

An overview which draws out the evidence and examples of good practice of relevance to 75+.