

Review of options for supporting digital innovation in social care

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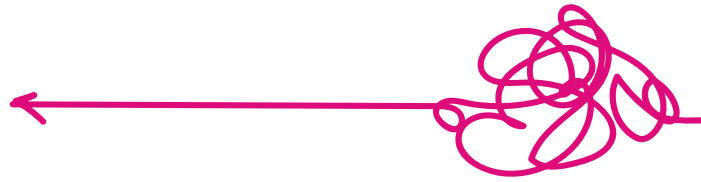
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Executive summary



This report has been produced to inform Social Care Wales's work in defining their approach to supporting digital innovation in social care. We've spent three months working closely alongside Social Care Wales and its partners. We've tried to collectively build a picture of the existing system of support for digital innovation in Wales and across the UK; reviewing what's worked, and where the gaps are in Wales.

We've found that it's impossible to talk about digital innovation without talking about digital inclusion. Digital technologies are certainly making a difference to the lives of people receiving care and support across Wales. However, we've learned from desk research and speaking to partners that some services aren't even able to make use of basic technologies, let alone more complex ones. We are therefore recommending that Social Care Wales continues to throw their weight behind the existing digital inclusion agenda in Wales, to ensure that all areas of social care are digitally included, and that any innovation initiatives don't make existing inequalities worse.

While digital inclusion needs to be a focus, it shouldn't take away attention from the potential of new technologies to improve social care. We've heard from partners that digital innovation is taking place without input from people who work within social care, and social care needs a stronger voice in shaping which technologies are being developed and scaled. We think Social Care Wales is well positioned to be this voice. We recommend Social Care Wales help to prioritise the

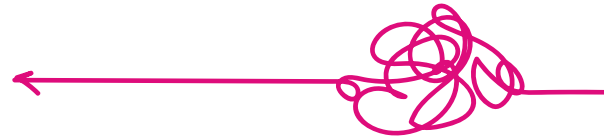
development and scale of innovative technologies by defining the key problems or challenges for the sector that may relate to digital technology or data.

This review focussed on engaging with senior stakeholders from organisations that support digital innovation in social care, and academic experts working in this space. We've heard that previous innovation initiatives, such as the **Liverpool 5G Health and Social Care Testbed**, have been challenged by those who are afraid of the impact of new technologies on their lives. The policy context in Wales, including the Social Services and Well-Being Act (2014) and the Well-Being of Future Generations Act (2015), also encourages co-production and the involvement of communities in changes to services that are provided to them. We therefore recommend that future digital innovation initiatives led by Social Care Wales prioritise the involvement of social care staff and people who access care and support.

To support our review, we created a minimum viable product (the most basic version of a product or service that can be launched in order to test its feasibility and gather feedback) of a digital database which categorises support available for digital innovation in social care in Wales. This database helped us to build a picture of the current system of support and helped us to assess the system. This report also contains recommendations for how Social Care Wales can develop and use this database in their approach to supporting digital innovation in social care.



Our brief and approach



From 2022, Social Care Wales has taken on a new role to provide leadership to support social care innovation. This is in line with the Welsh Government's aims to improve social care delivery through rapid innovation, enabled by data, focussed on outcomes. Social Care Wales is currently developing a combined strategy covering research, innovation and improvement to fulfil this role.

In early 2023, Social Care Wales asked for our support to understand the particularly complex landscape of digital innovation in social care. They wanted to understand where it can best add value within the existing system, building on the capabilities of other stakeholders and partners in this space. It also wanted to build on its own existing investments in innovation support. It wanted to understand how existing government-led or provider-led digital social care initiatives had already fared, and how Social Care Wales's potential offers could build on the learning from these.

Our approach focussed on collaborating with Social Care Wales's partners to build a shared picture of the digital innovation landscape in social care. From February to April 2023 we:

- ✓ Led desk-based research
- ✓ Had conversations with 19 different partners, including stakeholders working in this space and academic experts in digital innovation in social care
- ✓ Facilitated two co-design workshops with Social Care Wales and its partners
- ✓ Worked closely with Social Care Wales to produce a 'database' of support for digital innovation in social care in Wales. This builds on existing recommendations from Y Lab that Social Care Wales begin to build platforms and ways to share ideas in order to support innovation (Y Lab 2022).

This activity has culminated in this report, which firstly includes a glossary of terms to outline how they are used. We've found that many of the terms referred to

in this space are multifaceted - used in different ways in different contexts and across different policy areas. We've outlined established definitions where pertinent, and explained how we defined other terms for the purpose of this work.

The report then includes: an analysis of the 'gaps' in support for digital innovation in social care in Wales, followed by a set of options for how Social Care Wales might use their own, and partner resources and assets to best support, facilitate and promote digital innovation in social care to meet the needs of those who access care and support.

Finally, there are two appendices with further summaries of what we discovered throughout our work. These include a review of how digital innovation is supported in other parts of the UK, and a high-level of assessment of the structures and support in place in Wales (which outlines our work to develop a 'database' of support for digital innovation in social care in Wales).

Applying design thinking: what we mean by 'problem definition' in this report

We've suggested in this review that Social Care

Wales have a role to play in defining problems areas that are a priority to address in social care. When we use this language, we are informed by the Design Council's Double Diamond methodology for innovation (Design Council 2019). The Double Diamond is a visual representation of the design and innovation process. The 'first' diamond involves using evidence to clearly define a challenge; helping people to understand, rather than assume, what a problem is. The 'second' diamond outlines a process for finding answers to a clearly defined problem. We suggest that where technology partners can find solutions to problems, Social Care Wales has a role to challenge assumptions and clearly define what the problems are in social care. Defining problems clearly should help to prioritise the use of different types of technology in social care.



An analysis of the gaps in Wales

Based on our analysis of our database, our desk research and interviews with nineteen different stakeholders and experts, we've pulled together three key insights around the gaps in support for digital innovation in social care in Wales. In summary, these are:

- ✔ There is a lack of strategic leadership and coordination of the wider system
- ✔ There are gaps in the workforce skills that are needed to support innovation
- ✔ Digital innovation isn't focussed on supporting children, young people and families.

There is a lack of strategic leadership and coordination of the wider system

Social care needs a stronger voice in digital innovation work led by health

There is a bias in the system towards health. As Elin Brock from Hywel Dda University Health Board explained to us, "many social care organisations simply don't have the resources to support innovation... If I look within our health board, our resources (staff) to innovate are really good, we have an innovation team, an improvement team, a transformation team...you don't necessarily have that in social care...". Aaron Edwards from TEC Cymru also told us that he is concerned there is no representative from social care currently supporting the work to develop the Welsh NHS application, when there could be opportunities to integrate social care solutions, such as the Welsh Telecare Dataset, into the platform.

However, organisations are trying to address this. For example, Health Technology Wales and Social Care Wales worked in partnership in 2021 to ensure Health Technology Wales' processes were appropriate for social care and increase awareness and accessibility for the social care community (Health Technology Wales no date- a). In early 2022, they launched a search for technologies that could transform social care (Health Technology Wales 2022), a previous topic call found evidence to support the adoption of digital innovation that could support the mental health of carers of people with dementia (Health Technology Wales no date- b). Health Technology Wales will soon publish the outcomes from the social care topic call. Also, Joy Browning and Lynda Johnson from the Welsh SBRI Centre of Excellence told us that social care has recently been made a priority of theirs.

There was a sense that if there was a closer working relationship - where representatives from social care have input into the development of health-focussed innovations, and where social care could have greater access to health-focussed organisations' resources - there could be opportunities to work together that would benefit both.


There is no one coordinating work that's taking place

We heard from stakeholders that they feel there is duplication of effort taking place across the system. For example, one stakeholder told us: "There's two digital inclusion boards in Wales that have slightly different names.... someone always wants to start their own thing. And it's that powerful role that organisations like Social Care Wales can do and bring that stuff together into one place. So, they can share with partners once and not duplicate the work." Meilys Smith, a Supporting Health and Wellbeing Senior Manager at Gwynedd Council also said: "There are several meetings I attend that might not specifically be about digital innovation, but digital and tech is often on the agenda in one form or another. There is a gap for someone to fill, in streamlining the digital innovation agenda and avoiding unnecessary duplication of effort. People across Wales deserve the right to be able to benefit from technological advances, and it would be helpful to articulate a strategic vision for digital innovation in social care, including the necessary research, support and training needed within the workforce." There is therefore a need to bring divergent work together, perhaps through articulating a strategic vision that all groups can follow.

There is no one place reviewing all the evidence and learning around existing digital technologies in social care, which prevents them from being scaled

We heard from stakeholders that there is a gap when it comes to scrutinising and sharing existing evidence from pilot projects, which prevents them from being scaled. Gwyn Tudor from MediWales explained: "What we do badly is then adopt and roll out and scale what we've collaborated on as a community. There is a disconnect between procurement of technologies and services in Wales and innovation and collaboration. There are many projects that do well at a pilot stage, whether it's AI projects or remote monitoring or patient records, there are lots of examples where they've done well at pilot stage, but then the full procurement and adoption across the service hasn't followed." Carla Dix from Delta Wellbeing also said: "[There is a] need for better strategic rollout of digital service... the picking of the leaders in the field and the creation of human networks and learning networks that will create case studies, share best practice and incentivise some of that best practice".

There is technically support available for evaluating social technologies within health-led organisations in Wales, such as Health Technology Wales, as mentioned above. However, those we spoke to felt there is a gap when it comes to identifying the most impactful digital technologies in social care. In recognition of this evaluation deficit, the Bevan Commission, through their Bevan Exemplar programme, have a robust selection process to support new digital innovations, that asks organisations to clearly demonstrate how they plan



to evaluate the digital solution they nominate to the program. Dr Tom Howson, Innovation Lead at the Bevan Commission, reflected on those applying to the programme: “The one apparent obvious critical skill missing, is being able to evaluate the outcomes and impact of whatever you’re doing.... There’s a lack of evaluation skills within the health and social care workforce. From our perspective, people don’t have that understanding of evaluation techniques, logic models, or what we need to be able to demonstrate at the end.” There is therefore a need to promote and share evaluation of existing digital technologies in social care.

There are gaps in workforce skills that are needed to support innovation

During our conversations, we heard concerns regarding the digital skills of the social care workforce. Many believed that the workforce lacked the necessary digital skills to make the most of available digital solutions. Professor Hamish Laing, Chair of the Digital Inclusion Alliance for Wales noted: “In terms of demographics - social care staff are drawn from the general population. 7% of the Welsh population is not yet online. For the over-50 age group it’s about 17% - so you would expect that some staff would not have good digital skills”.

However, there wasn’t a fully developed understanding with evidence of what digital skills are missing within the social care workforce. There was a sense that Social Care Wales had a role in understanding what skills are needed, and where the gaps in those skills are. Jocelle Lovell from Digital Communities Wales believed that having a current picture of the digital skills of the social care workforce would be a good starting point. “We need a skills audit,” she said. “How do you embed testing where people’s skills levels are at the moment? We need a skills audit to understand where people’s skills levels are at the moment, then embed it into the induction process, and as an annual test.”

On the skills needed by the sector, Hamish Laing suggested two skills that were needed, “... basic skills such as being able to use the internet at home, and enhanced skills specifically related to a particular workplace application and device the application sits on”. Several individuals expressed a strong belief that Social

Care Wales is well-positioned to conduct a scoping exercise on the skills deficit of the social care workforce. Hamish Laing suggested that “a partnership with Digital Communities Wales could be beneficial in guiding this assessment”. He explained: “Social Care Wales is probably best-placed both to assess and then act on the levels of digital confidence amongst their workforce. They might want to do it with the Digital Communities Wales (Digital Confidence, Health and Well-being) programme.”

Digital innovation isn’t focussed on supporting children, young people and families

We know from desk research that the emphasis in recent digital innovations has been on adults’ social care and led by the NHS. There is less funding available for digital innovation in the children’s system, and while adult social care policy focuses on the potential of digital for self-management and greater independence for those who access care, children’s social care services still stress on the need for face-to-face interactions and in-person direct work with families (Children and Young People Now 2021).

When speaking to stakeholders, we heard some concerns regarding children and young people being an afterthought when developing digital innovation. Elin Brock from Hywel Dda University Health Board made this observation: “You look at adult services, where they are probably doing quite a bit in terms of installing Technology-Enabled Care to keep adults safe at home... But, you know, for children or young people Technology-Enabled Care people is basically non-existent”.

There may be a need to understand if there is enough consideration and support for digital innovation which can support children, young people and families.

In conclusion, our work has highlighted three key gaps in the support available for digital innovation in social care in Wales. In the next section, we have coupled this with further insights from our workshops and desk research. We present three opportunity areas where we believe Social Care Wales can plan an impactful role in consideration of these gaps in the current system of support alongside other pressing needs in social care.

A set of options for how Social Care Wales might use their own, and partner resources and assets to best support, facilitate and promote digital innovation in social care to meet the needs of those who access care and support

Below we have provided three key opportunity areas we believe will allow Social Care Wales to use their own, and partners' resources and assets to best support, facilitate and promote digital innovation in social care to meet the needs of those who access care and support. We believe that each of these opportunity areas can be pursued alongside each other meaningfully to create an impactful enabling role in digital innovation for Social Care Wales. We have presented recommended options for each area to help inform a future plan of work, and suggestions for what these look like in practice, however there is scope to shape this further.

Opportunity area one: promoting inclusion and closing the digital divide

Summary of insights

We've heard that there's an uneven spread of access to digital technologies in social care and support services. Those we spoke to remain concerned that some people accessing care and support, such as residents in some private adult care settings or care leavers, have been left behind and remain digitally excluded. This is due to a variety of reasons, including lack of awareness and digital skills amongst care providers and their staff, barriers to accessing infrastructure such as poor connectivity in rural areas, or financial barriers.

Research suggests that many care homes only offer a basic connectivity package (with communal landline phones, TVs in rooms with Freeview and some unreliable home-wide wi-fi) (Communications Consumer Panel 2021a), although during the coronavirus pandemic there were efforts to improve care homes' connectivity (Digital Communities Wales no date- c). Professor Hamish Laing also recently gave evidence to the House of Lords' Communications and Digital Select Committee that 19% of people in Wales reduced or gave up access to broadband last year because of the cost-of-living crisis (Laing 2023), which will have included many people providing and accessing care and support. However, we've found there's a gap in holistic data that can show us what the digital inclusion picture really is like in terms of Welsh social care and support. For example, we have not been able to find any concrete data that shows us exactly how many residential care homes lack basic connectivity in Wales.

Existing research suggests promoting digital innovation projects has the potential to worsen inequalities in digital maturity between different organisations or

services, leaving many areas left further behind (RSM 2021). We've also heard throughout our own research and engagement with stakeholders in Wales that they feel it's a priority to 'get the basics right' and make sure people have the right access to basic infrastructure and skills before pursuing new technologies. It's therefore important to make sure that all staff and people who receive care and support are digitally included and can benefit from basic technologies before considering more complex innovation. Digital access skills and confidence are recognised as a social determinant of health, and the social care sector has been identified as a vital part of a digitally inclusive country (Digital Communities Wales 2023). While the sector continues to undergo digital transformation, which can create stronger social care services and fairer communities, we don't want this work to create a digital 'inverse care law' (Hart 1971) in Wales, which exacerbates inequalities in social care provision.

We've also learned about the thriving Digital Inclusion Agenda in Wales. Digital Communities Wales has received £6 million to extend their work until 2025. Social Care Wales has already worked with Digital Communities Wales to create an e-learning module for their workforce (Digital Communities Wales 2023), but there are more ways Social Care Wales can get involved with the support on offer. This may include signing the Digital Inclusion Charter and participating in the Digital Inclusion Alliance network. Jocelle Lovell at Digital Communities Wales told us: "There's lots of work we can do and I know we're already well engaged with social care...Social Care Wales should (sign the Digital Charter) in their own right....equally, once they've done it it's lead by example, they should encourage the providers to also sign up to that."





Recommendations

1 **Social Care Wales should work with partners to promote the digital inclusion agenda, so that future digital innovation efforts do not worsen the digital divide.**

What this looks like in practice:

- We recommend Social Care Wales make the most of Digital Communities Wales' assets by signing and promoting the Digital Inclusion Charter and participating in the Digital Inclusion Alliance. This will allow Social Care Wales to understand and access the ways digital inclusion is already being promoted in Wales and apply these tools to their own work.

2 **Social Care Wales should work with partners to produce a baseline assessment of digital inclusion in social care, so that they can understand and evidence existing inequalities.**

What this looks like in practice:

- NHS England (Ipsos Mori 201) and Digital Health and Care Scotland (2019) have carried out their own reviews of digital capabilities and maturity in health and care settings England and Scotland, which Social Care Wales can learn from.
- We also explored how this work might take place in the context of social care in Wales during our second workshop. Social Care Wales and its partners had conversations about the need to have a shared understanding of what we are trying to capture in this exercise, given that defining digital inclusion, digital maturity, capabilities or readiness is subjective.
- One suggestion in the second workshop was that Social Care Wales build on the Welsh Government's work on the Welsh Minimum Digital Living Standard (2023), by developing a Minimum Digital Standard adapted and expanded for care and support provision. The Minimum Digital Living Standard is a definition of what counts as digital inclusion or exclusion. It includes access to digital goods and services (such as broadband and laptop/tablet), practical and functional skills (such as using devices and downloading apps) and skills for understanding and managing digital risks (such as using secure passwords). Social Care Wales might work with relevant partners (including Care Inspectorate Wales) to develop a Minimum Digital Standard for social care, comprising a holistic view of infrastructure and skills, and assess settings against this.
- The principles behind this kind of approach are supported by existing research into adult social care. The Communications Consumer Panel (2021b) has recommended that regulators and governments should set clear expectations on what 'high' quality connectivity looks like in adult residential care. An Ipsos Mori report for NHS England also recommended that there is a need to define and achieve a consistent baseline of transferable digital skills across the adult social sector (2021).
- Developing a Minimum Digital Standard for social care could also support Regulation 19 and 25 of The Regulated Services (Service Providers and Responsible Individuals) (Wales) Regulations 2017, which state that individuals should have access and support to access to relevant digital communications and/or assistive technology, and that technology and specialist equipment are provided to enable people to call for assistance and enable them to manage their needs (Welsh Government 2019).
- As well as supporting adult social care, a Minimum Digital Standard for social care should also consider care and support settings for children and young people. Social Care Wales should work with partners such as Care Inspectorate Wales to assess what kinds of connectivity packages are offered in children and young people's residential settings. They should also understand to what extent children's social workers have access to digital care records, and how they are able to share data with other agencies.

3 **Social Care Wales should produce a programme of work to support digital inclusion in social care, to help level existing inequalities.**

What this looks like in practice:

- Social Care Wales should develop a programme of work and work with partners to support providers who do not meet the Minimum Digital Standard to do so.

Opportunity area two: providing leadership and coordinating the wider system

Summary of insights

The Three Horizons model is a future and innovation framework used in previous work by Y Lab (2022) to build a clearer understanding of the innovation landscape in health and social care. We've observed that although some areas of social care remain digitally excluded, at the same time there are what the Three Horizons Model refers to as "pockets of future" (Sharpe 2019) in the present.

This is to say that a huge number of government-led digital innovation pilot projects across the UK have already proved their value in these contexts, representing what might be possible on a large scale in the future, but have not yet been scaled or had wider impact. Dr James Wright from the University of Sheffield has described this phenomenon of widespread pilot projects as the system suffering from 'pilotitis' (Hamblin and Whitfield 2022).

Technology partners continue to develop new products, some of which help solve known problems. Others work backwards: seeking problems they believe their product is the answer to. As lots of impactful technologies already exist along with those that are being developed and show promise in better supporting the care sector, there's a need to prioritise what should be adopted and when. Technology partners are open to being guided by social care. As Chris Habberley, Senior Project Manager at the National Data Resource programme told us: "If you know what the big problems on a national level that organisations have, then you can prioritise - doing stuff with data isn't necessarily the answer."

A clear steer from the social care sector on what the big problems are, and which are the greatest priority to solve, will help ensure that partners are focusing effort on developing impactful solutions. Joy Browning from Small Business Research Initiative Centre of Excellence (SBRI) explained that in their work they try to master "the art of trying to get the problem out of people: 'What is your imminent need, what is the challenge?' We can then try to match them up as well as we can with a solution."

Throughout our research, we've heard repeatedly from stakeholders about a:

- ✔ A wider lack of leadership and the need for coordination in the system.
- ✔ Need for a strategic vision for everyone to follow
- ✔ The need to raise awareness of what technologies can do.
- ✔ Coordination and alignment of what is already happening in the system, to avoid duplication of effort.
- ✔ Need to ensure that social care is represented when health-led organisations pursue digital innovation.

- ✔ Tendency for care professionals to have less training in the skills needed to evaluate new technologies compared to their health colleagues. and therefore a need for someone to articulate problems and understand how and what technology can help address them in social care; gather the evidence that particular technologies are impactful, and promote their rollout across the system.

Stakeholders felt that Social Care Wales is well positioned to fill this void. For example, Professor Hamish Laing told us that Social Care Wales "are well-placed to identify the problems that technology could address. They should be helping to tell industry and development partners what the needs are, pulling in solutions rather than having them pushed to them by companies". This will help to prioritise the problems in social care where technology may form a significant portion of the solution.

We were inspired to hear about the London Office of Technology and Innovation's (LOTI) approach to digital innovation, which is an outcomes-based methodology that draws on the Design Council's Double Diamond (LOTI no date- a). LOTI start with the problem they are trying to solve and the outcomes they want to achieve. Social Care Wales might also identify what kinds of outcomes - which are important to people working in and accessing social care - they would like to see technologies help to achieve. This will help to support the assessment of these technologies in practice. LOTI explains the benefit of this approach is that "organisations can waste months or even years chasing down datasets that add no extra value to their decision-making and enable no new action. Without a specific outcome in mind, every dataset is potentially in scope" (LOTI no date- b).

Where technologies already exist, Social Care Wales can support the impact they're having to scale. Care Inspectorate Scotland, a public body with a statutory function similar to Care Inspectorate Wales, has explicitly partnered with PainChek, a pain monitoring app, to demonstrate its ability to improve pain assessments in care homes (TEC no date- a). In a similar vein, Digital Social Care has developed an Assured Supplier List with quality-assured supplier solutions for digital social care record solutions, to meet their goal that 80% of English Care Quality Commission Providers-registered organisations are using digital social care records by March 2024 (Digital Social Care 2022). This shows there are examples of national support for scaling impactful innovations by providing clear and authoritative guidance on which technologies they expect social care settings to be using.

Throughout this review we have mapped different types of support available for organisations in Wales to benefit from digital innovation in social care (including through skills training, access to innovation databases, and digital standards). Social Care Wales can also use this tool to help provide a picture of what's happening already in the system, help organisations access the different types of support on offer based on their needs, and avoid duplication of effort in digital innovation support.

Recommendations

1 **Social Care Wales should lead on defining and articulating priority problem areas for social care that may relate to digital technology, to coordinate wider innovation activity.**

What this looks like in practice:

- We tested this recommendation in our second workshop with stakeholders, and there was broad consensus that Social Care Wales is the right organisation to play this role. Social Care Wales have access to a range of resources that can support them to identify priority problem areas for the workforce. This includes their existing research, and their access to the perspectives of their newly developed Communities of Practice for social care practitioners and researchers.
- We recommend that Social Care Wales take inspiration from LOTI's outcomes-based methodology (LOTI no date- a), and also articulate the outcomes they expect to see the technology have. For example, the NHS Transformation Directorate's evidence shows that adopting a digital care record approach can save at least 20 minutes of a carer's administrative time each day (NHS England - Transformation Directorate, n.d). Articulating anticipated outcomes from the outset - such as, in this case, a significant reduction in carer's administrative time - will help to evaluate whether these technologies are impactful.
- They can then work with partners and build on their assets to coordinate the development of digital innovation. Wales' Small Business Research Initiative Centre of Excellence (SBRI) is an example of a partner who can support as an intermediary between Social Care Wales and the technology sector. SBRI runs health and care challenges; their work with the Welsh Ambulance Service has received a St David Award for Science Innovation and Technology (SBRI 2021). Once Social Care Wales has articulated a problem area, SBRI can take the challenge to technology partners.

2 **Social Care Wales should then support the scale of new or existing digital solutions through promoting the technologies that help meet their desired outcomes.**

What this looks like in practice:

- There will not always be technologies available that meet the outcomes Social Care Wales has outlined. However, we have repeatedly heard about successful pilot projects across the UK and Wales that have not been supported to scale, and there is no use wasting resources to reinvent the wheel. Social Care Wales can support the scale of new and existing technologies by working with partners to review available evidence around digital solutions, and then promoting those that meet their proposed outcomes.
- We've identified that stakeholders feel support for reviewing evidence and sharing best practice of digital innovation in social care is lacking, although partners, such as Health Technology Wales, do have the resources for this kind of work. Health Technology Wales and Social Care Wales worked in partnership in 2021 to ensure Health Technology Wales' processes were appropriate for social care and increase awareness and accessibility for the social care community (Health Technology Wales no date- a). In Early 2022, they launched a search for technologies that could transform social care (Health Technology Wales 2022).
- Social Care Wales should continue to work closely alongside Health Technology Wales and other partners to ensure the evidence base for technologies in social care continues to grow.
- Social Care Wales might also consider supporting the workforce to develop evaluation skills, so that grassroots innovators can also communicate the impact of their own digital innovations.
- Social Care Wales can promote the scale of innovative technologies in different ways. Rather than being prescriptive, Social Care Wales can work with partners such as Care Inspectorate Wales to set expectations about how care provision, and the workforce skills needed to provide it, should look. They can then promote technologies that support this vision. For example, where care homes aren't conducting pain assessments in Scotland, Care Inspectorate Scotland can now use the evidence it has gathered to point to PainChek as a solution.
- Social Care Wales can also promote technologies through sharing the evidence amongst their Communities of Practice and within their innovation coaching offer.

3 **Social Care Wales should further develop and publish the database of innovation support that has been produced during this work.**

What this looks like in practice:

- By keeping the tool 'live' and using it in their wider innovation work, Social Care Wales can steer and guide organisations to access the wealth of support that is already on offer, while keeping the whole system in their sight.

Opportunity three: ensuring the involvement of staff and people who access care and support in digital innovation

Summary of insights

Our review focussed on engaging with senior stakeholders in this space, and we haven't engaged directly with staff and people who access care and support. However, we've been struck by what we've heard during our conversations about the importance of involving people in digital innovation efforts.

Innovative projects like the Liverpool 5G Health and Social Care Testbed are threatened when people's fears of new technologies aren't addressed. As Dr Kate Hamblin explained in a submission of evidence to the Technology for our Ageing Population (TAPPI) Inquiry, "challenges the 5G testbed has experienced included fears about the safety of 5G related to social media campaigns about radiation; incidents of graffiti and vandalism in which three nodes were damaged" (Hamblin 2021). This kind of vandalism, including arson attacks on 5G Masts (BBC 2020), demonstrates the importance of involving people in this work from the start.

Dr James Wright told us "I would strongly recommend that people are actively involved, even at the 'building the basic infrastructure' phase, so that they understand and can be informed, and also contribute to discussions about how that infrastructure goes in - as we well know from the 5G network....There's so much opposition to 5G - if (people) don't realise what is the importance of having access to data, which is driving all of these technologies, it's difficult to get them onboard."

Involving staff and people who access care and support in this kind of work, where changes are being made to services, is also one of the key ways of working in the Well-Being of Future Generations Act (2015). The Social Services and Well-Being Act (2014) also has co-production as one of its key principles. In addition, the Digital Inclusion Alliance Wales has said user-centred design or co-production principles are vital to embedding digital inclusion reflecting the diversity of communities when designing and delivering services (Digital Communities Wales 2023), and the Digital Services Standards for Wales stress the need to make user-led technology decisions (Centre for Digital Public Services Wales n.d.). There are a variety of ways in which Social Care Wales can champion different methods of involvement in this work.

Recommendations

Social Care Wales should champion the involvement of staff and people who access care and support in developing their approach to supporting digital innovation.

What this looks like in practice:

- We recommend Social Care Wales convene a co-design group of staff and people who access care and support to support decision making around digital inclusion programmes, problem definition and which technological solutions to back.

Appendix 1 - An overview of how digital innovation in social care is supported in other parts of the UK

Introduction

Remaining inspired by digital innovation despite the challenges

Research shows that digital innovation in social care across the UK has suffered from a lack of co-ordinated vision and policy leadership (Hamblin and Whitfield 2022, Maguire et al 2021, RSM 2021). Although a great deal of work has taken place, different initiatives have been carried out unevenly across the UK, resulting in uneven distribution of digital innovation. The research suggests that without considering the baseline digital capabilities of different organisations or services, innovation initiatives have the potential to worsen differences in digital maturity between them (RSM 2021).

Moreover, despite repeated calls for greater integration between health and social care (Reed et al 2021), there is a significant gap in digital maturity between the NHS and the social care system. Many feel that social care has been “left behind” in the digital realm compared to health care (Maguire et al 2021, 38). The NHS has a centralised infrastructure and has received significant investment in technology and innovation, while the social care system is fragmented, made up of a variety of bodies including local authorities, small private providers, third sector providers and individual personal assistants. A King’s Fund report highlights that the social care sector has “far less digital maturity in terms of the network and device infrastructure in place, and less historical development of the digital skills of its workforce” (Maguire et al 2021,43).

New technologies are seen as desirable and attract the attention of policymakers, but this can distract from a need to make sure the basics are in place. For example, recent English Department for Health and Social Care White Papers have stressed the importance of technologies such as acoustic monitoring, which aren’t widely used, rather than improving basic digital infrastructure (Hamblin and Whitfield 2022). Artificial Intelligence has also been a recent focus, especially since the AI chatbot ChatGPT emerged in early 2023. In February 2023, former Prime Minister Tony Blair and Opposition Leader William Hague produced a joint report arguing that Artificial Intelligence (AI) technologies should be used across public services (Blair and Hague 2023). However, people often get overly excited about new technology, thinking it will solve all the problems in social care, before realising there are still challenges to implementing it properly (Freed [2018] calls this the “hype cycle”).

Even so, scattered pockets of digital innovation demonstrate what can be achieved, and we can still draw inspiration from them. Different organisations have highlighted the importance of focusing on new technologies to promote digital transformation, even

if staff currently lack digital skills. For instance, a report for the NHS Transformation Directorate recommended introducing digital technology in the workplace with appropriate support, even where skills are lacking, as it can help encourage the development of digital skills and increase confidence in using technology (Ipsos Mori 2021). In Wales, Digital Communities Wales run workshops to inspire care professionals and the people they support to consider using technology and the internet (Digital Communities Wales n.d-d). Although there are challenges, we shouldn’t lose sight of the fact that innovative digital technologies have the potential to improve the wellbeing and independence of those who access care and support, at the same as making services more joined up and improving the experiences of staff who provide care and support.

How we’ve approached this overview

We have conducted desk research to provide an overview of how digital innovation in social care is currently supported in the UK in April 2023. Since health and social care responsibilities are devolved to the four nations (England, Wales, Scotland and Northern Ireland) there are different support systems in place in each country. Over the following pages, we will provide an overview of recent government-led initiatives in England, Scotland and Northern Ireland, an overview of UK-wide government-led initiatives, and other notable initiatives, including those led by providers.

We’ve found that the majority of recent initiatives to support digital innovation in social care have been led by government health departments. There has been a strong focus on developing and scaling Care Tech or Technology-Enabled Care, alongside work to make sure that care organisations are equipped with the right digital infrastructure and skills to support this. There has also been work taking place across the four nations to create digital health and care records. Lots of work has taken place to look at technology in adults’ settings, compared to limited work on digital solutions for children’s social care - although exciting examples of innovation do exist. For example, MAST is a digital solution to information sharing for safeguarding both children and adults which was developed in NHS England’s Social Care Digital Innovation programme and is now being adopted in South Wales. We have described this below.

Although it would make sense to focus on the initiatives that are making the most difference to staff and people who access care and support, it’s not an easy task to

determine what impact these initiatives have had. As mentioned in a recent report by the Nuffield Trust, measuring the success of digital technology initiatives at a policy level and their impact on staff and those who receive care can be challenging (Hutchings and Morris 2022). We've therefore cast our net quite wide, and tried to give a succinct description of the main types of programmes that are happening or have happened recently, while also showing you how broad and diverse the system of available support is. Many of the programmes outlined below are also relatively new and haven't had the chance to be thoroughly evaluated. However, where significant evaluation data has been published, we have presented this.

Government-led initiatives in England

The Social Care Programme pilots

In England, until 2021, most public health and social care funding for care technologies was given to pilot schemes, which were run by local authorities with support from NHS Digital and NHSX. These pilot schemes, under the banners of the Social Care Digital Innovation Programme (which was run as a collaboration with the Local Government Association) and the wider Social Care Programme, produced lots of evidence about digital innovation in social care. However, most of these projects didn't receive enough funding to scale up (Hamblin and Whitfield 2022). The Social Care Programme ran from 2016 to 2021 and funded over 100 projects with a total investment of £22.8 million (NHS Digital 2022).

An evaluation of the programme summarised its key achievements and lessons learned, which are shown in the table below:

NHS Digital and NHS X's Social Care Programme (2016-2021)
<i>Lessons Learned</i>
<p>Sector involvement: Importance of having direct involvement of the sector at programme board level. This should be ensured from the outset.</p> <p>Outlining aims and objectives: Importance of having a clear vision of the future and outlining exactly what the aims of the programme are from the outset. Similarly, having more clearly defined aims and a vision of success at project level.</p> <p>Assessing digital standards: Ensuring that innovative programmes such as this do not exacerbate differences in digital maturity. More scoping to better understand what progress is needed across the sector.</p> <p>Sharing learning: More opportunities for bringing together different projects and work streams to share learning, within the programme and with the wider sector. Ensuring clarity on the purpose of these events when they are held.</p> <p>Policy: Development of central social care policy, as well as specific improvements in information governance and data standards, would help to develop the use of digital in social care in future.</p> <p>Ensuring maximum benefit realisation: More in-depth consideration of project timeframes and what can be achieved within this. Funding opportunities should be at least across a 24 month period to ensure sufficient timescales for delivery.</p> <p>Leadership: Importance of having stable, enthusiastic and knowledgeable leadership throughout the programme.</p>

- (RSM 2021, 58)





NHS Transformation Directorate and the Digitising Social Care Team - developing digital social care records, Care Tech, connectivity infrastructure and assessing digital skills

Starting from 2021, NHS Digital and NHSX were merged into the NHS Transformation Directorate (Gould 2022), replacing the initiatives described above. Funding will now increasingly be directed to new Integrated Care Services (ICS), implemented under the passage of the 2022 Health and Care Act in England. However, it wasn't clear as of Autumn 2022 how responsibilities and decision-making power about digital technologies will be given to ICSs (Hamblin and Whitfield 2022). Nonetheless, some centralised funding still exists, and is managed by the NHS Transformation Directorate's Digitising Social Care Team.

The NHS Transformation Directorate's Digitising Social Care Team is leading a range of programmes, including: supporting NHS and social care organisations in implementing digital social care records, developing Care Tech to help people live independently at home, supporting connectivity infrastructure in Care Homes, and assessing the current levels of digital skills (NHS England - Transformation Directorate, n.d). The NHS Transformation Directorate is providing £8.2 million of funding for pilots as part of the Digitising Social Care Fund to support this work, with expectation that applicants will provide matching funding (Hamblin and Whitfield 2023). Additionally, £25 million will be available to Integrated Care systems in 2022/23 to support adult social care providers in adopting transformative technologies (Digital Social Care 2022).

The Digitising Social Care team is working closely with Digital Social Care, a provider-led organisation, to achieve their goal, as outlined in the People at the Heart of Care White Paper, of ensuring that 80% of Care Quality Commission Providers registered providers are using electronic care planning solutions (digital social care records) by March 2024. This goal is supported by evidence from their own evaluation work, which shows that adopting a digital care record approach can save at least 20 minutes of a carer's administrative time each day (NHS England - Transformation Directorate, n.d).

Working with Digital Social Care, the Digitising Social Care Team have launched an Assured Supplier List in which provides organisations with a curated list of quality-assured supplier solutions which meet with a minimum set of capabilities and standards for digital social care record solutions (Digital Social Care no date-b). They are also providing a series of masterclasses for care providers to further support the adoption of digital social care records (NHS England - Transformation Directorate, n.d).

As part of their wider efforts, the Digitising Social Care team, in partnership with Ipsos Mori and Institute of Public Care published a review that examined use

and effectiveness of technology in social care, and identified barriers to adoption and scalability across the sector (Ipsos Mori 2021). One of the recommendations in the report is to create a "national vision for a digital ecosystem or 'backbone' for digital technology" to support the digitisation of the Adult Social Care Sector. In addition, the Digitising Social Care team has partnered with Digital Social Care to develop connectivity guidance for Care Homes, which provides decision-makers with information on different internet connections and device options to support connectivity infrastructure (Digital Social Care 2021).

Promoting technology to manage adult deterioration in care homes

The NHS also provides funding to 15 Academic Health Science Networks (AHSNs) across England. These networks are made up of partnerships between the NHS, industry, academic institutions, third sector organisations, and local organisations. They have developed a national innovation pipeline of over 1200 proven technologies which are ready to be matched with local health and care challenges (AHSN Network no date- a).

Although the main focus is on health technologies, some work related to adult social care is also taking place, including a programme that focuses on managing adult deterioration in care homes. The goal of this programme is to promote the adoption of deterioration management tools, such as RESTORE2/ RESTORE2mini or equivalent, in at least 85% of care homes by the end of March 2023, including those homes caring for people with learning disabilities, autism and mental health ill-health (AHSN Network no date- b).

Supporting data sharing, digital inclusion and sharing resources across London boroughs

The London Office of Technology and Innovation (LOTI) is a notable local government led initiative that supports digital innovation in social care in England. It was founded in 2019 and is hosted by the organisation London Councils, serving as a membership organisation that helps London borough councils and the Greater London Authority "work together to bring the best of technology, data and innovation to improve public services and outcomes for Londoners" (LOTI no date- a).

LOTI uses an outcomes-based approach, based on the Design Council's Double Diamond, to identify what they want to change before considering how technology can help. They focus on projects that promote the development of digital capabilities and support service innovation, including addressing barriers to effective data sharing and promoting digital inclusion (LOTI 2022a).



Membership of LOTI gives London boroughs access to various resources, such as toolkits, guides, frameworks and libraries of case studies that help solve problems and make information easier to find and understand. They also offer products and create, find or negotiate better prices on technology products that can enhance boroughs' work, manage projects to improve collective knowledge and create new resources, and convene networks and run campaigns (LOTI no date- c).

Digital innovation in children's social care

In 2022 LOTI conducted a survey to understand what solutions are available on the market to drive new and effective digitally enabled models of care that can support London boroughs. They noted that there were fewer innovators working on solutions for youth offending and Children's Services more generally (LOTI 2022b).

Indeed, it's important to note that while the emphasis in programmes described above has been on adults' social care and led by the NHS, there has been some limited support for digital innovation in children's social care in England. There is less funding available for digital innovation in the children's system, and while adult social care policy focuses on the potential of digital for self-management and greater independence for those who access care, children's social care services still stress the need for face-to-face interactions and in-person direct work with families (Children and Young People Now 2021).

Even so, there have been some innovation initiatives to develop new tools for direct work and systems to support professional decision-making in children's social care. However, these have had mixed success. In 2014, the English Department for Education funded the Children's Social Care Innovation Programme, which included a project by a University of Kent-led consortium exploring how to leverage advances in technology for the benefit of vulnerable young people. The technologies co-designed in this project received mixed feedback from both young people and social workers (Fu and Clay 2017).

Also, despite the attention given to the potential of Artificial Intelligence for improved risk analysis in children's services, a review conducted by the What Works Centre for Children's Social Care (Clayton et al 2020) didn't find evidence that models created using machine learning techniques could improve decision-making.

Improving professional decision-making around safeguarding

Elsewhere, in a successful pilot project funded by NHS Digital and NHS X's Social Care Digital Innovation Programme, Walsall Council led the development of the Multi-Agency Safeguarding Tracker (MAST) with the support of public sector co-funding platform CC2i (LGA 2021). MAST combines limited demographic data from different safeguarding agencies, allowing social workers

to quickly see if other agencies are actively involved with a family or address, and get a better picture of the current situation. This has been shown to improve decision-making and cut the number of 'No Further Actions' returning to the system. Recent usability testing of MAST by Policy in Practice highlighted its impact in terms of time-saving, with one user explaining how before MAST, professionals could be "on the phone for an hour or more, trying to chase up a response, sometimes just to be told to put the request in writing" (CC2i no date- a). MAST was also a winner at the 2021 British Data Awards. MAST is currently being adopted by the West Glamorgan Safeguarding Board. (At the time of writing in April 2023, this has not yet been publicised beyond the Safeguarding Board. We spoke to Jane Hancer from CC2i and Chris Frey-Davies, the lead contract for MAST during this review who gave us permission to share this).

Digital inclusion for care leavers

While the NHS Transformation Directorate is prioritising connectivity in Care Homes, there have also been calls from organisations representing care leavers for the government to prioritise digital inclusion for young people leaving care (Care Leavers National Movement 2021). At the end of 2022, Greater Manchester Combined Authority (GMCA) began rolling out a programme to provide care leavers with free data connectivity, devices and skills training to care leavers aged 25 years or under. GMCA has estimated there are 4,200 care leavers across the region who are digitally excluded in some way. A pilot project has already taken place in Salford, done as a partnership between Salford City Council, GMCA, Good Things Foundation, Salford Foundation and Virgin Media O2. Free data was donated through the National Databank, which was set up by Good Things Foundation and Virgin Media O2. The pilot helped 48 care leavers, out of which 60% were able to connect to the internet, and 20% signed up for extra training. 61% of those supported were unaccompanied asylum seekers. The programme will now be extended to care leavers across the 10 Greater Manchester local authorities (Wray 2022).

Government-led initiatives in Scotland

Sharing data, developing digital skills, supporting digital infrastructure, and scaling Technology Enabled Care in Scotland

Scotland has invested significantly in digital social care and has implemented various initiatives. In 2018 the government and the Convention of Scottish Local Authorities (COSLA) jointly published a Digital Health and Care Strategy, 'Enabling, Connecting and Empowering: Care in the Digital Age', accompanied by a three year rolling delivery plan which updated annually from 2021 (Scottish Government and COSLA 2021). The



aims of the strategy are that people will have control over their health data and access to information that can help them stay healthy, to make sure health and care workers can easily and safely share information and provide good quality care, and give planners, researchers and innovators access to data to improve systems and ways of working. (Scottish Government and COSLA 2018, 8). To achieve these aims, the strategy focuses on six priority areas: digital access, digital services, digital foundations, digital skills and leadership, digital futures and data-driven services and insight (Scottish Government and COSLA 2018, 9).

The Scottish Government has invested nearly £100 million to support the strategy in 2022/23, which is led by the Digital Health and Care Directorate (Scottish Government 2022). The Digital Health and Care Directorate works with other organisations to create digital solutions in line with the strategy (Digital Health and Care Scotland n.d.). They are involved in a wide range of work across health and care. They have focussed on digital foundations by undertaking an assessment of local authority digital maturity (Digital Health and Care Scotland 2019), and developed workforce skills, including through creating a Professional Development Award in Technology Enabled Care on the NHS Education for Scotland's 'NHS Turas' learning platform (Turas Learn n.d.). They also launched the National Digital Platform at the end of 2022 (NHS Education for Scotland 2022). This gives both staff and those who receive care better access to individual health and care data, as well as allowing potential developers to make use of a standard approach to infrastructure, giving them access to services that can speed up their developments (Lydon 2022).

The Digital Health and Care Directorate are also leading a specific Technology Enabled Care (TEC) Programme. Through this programme, they have given almost 2000 tablets to 75% of care homes in Scotland, helping over 90% of residents in those homes (Digital Health and Care Scotland 2023 no date- b). They are also promoting a web-based system called 'Near Me', that lets public sector providers in health, care or elsewhere offer video calls to those who need to access to their services (TEC no date- b). As part of the TEC programme, Care Inspectorate Scotland (the independent regulator for social care services) has been testing a pain monitoring app called PainChek in four care homes. Before the app, the first home didn't check residents' pain levels, but now everyone gets a weekly pain assessment. Staff continue to use the app to personalise pain recognition and care for each resident (TEC no date- a). (Life Sciences Hub Wales and the Gwent Regional Partnership Board are also currently leading a 12 month pilot programme of PainChek as part of the Board's Technology Enabled Care Programme [PainChek 2022]).

Creating innovation 'clusters' and a sandbox space for developers

The Scottish government, together with the Scottish Funding Council, also funds an organisation called

the Digital Health and Care Innovation Centre (DHI). This is one of seven Innovation Centres in Scotland that serve as a national resource. DHI is a collaboration between the Glasgow School of Art and the University of Strathclyde. Their goal is to use digital innovation in healthcare to help people in Scotland live healthier lives and create economic growth. DHI works with partners from different sectors, like businesses, public organisations, academic institutions, and citizens, using a five-stage innovation model. They run 'innovation clusters', which bring together different partners to share knowledge and ideas on topics like digital mental health, healthy ageing, and hospitalisation at home. They also run a platform called DHI Exchange, which provides a generic sandbox space for many digital suppliers and services to develop and test new projects. DHI has also worked on several projects with Skills Development Scotland and Digital World, to better understand Scotland's digital health and care sector and create a pipeline of talent for the growing industry (Digital Health and Care Innovation Centre 2023).

Government-led initiatives in Northern Ireland

Developing the 'face' of digital innovation in Northern Ireland

In Northern Ireland, rather than the NHS providing health services while local councils provide social care services, health and social care services are organised together under what is known as Health and Social Care (HSC). HSC published a Digital Strategy for 2022-2026, including a Digital Innovation Strategy, to improve health and care outcomes through digital transformation (Department of Health n.d.). They plan to create a "Digital Innovation Hub" to become the 'face' of digital innovation in Northern Ireland and streamline the innovation process. The mission is to 'establish the Digital Innovation Hub as a centre of excellence for scoping, prioritising, piloting and scaling innovation in digital health products, services and processes' (HSC 2022, 8). The proposed innovation pathway for the Hub has three steps: identifying opportunities and prioritising initiatives in line with target areas for innovation, incubating, testing and speeding up opportunities, progressing initiatives to the proof of concept and piloting stage, then scaling, deploying and learning. The implementation roadmap for the Hub expects to have core functions set up and a detailed communications plan published by the end of 2023 (HSC 2022).

Developing digital care records in Northern Ireland

As part of HSC's Digital Strategy they are also rolling out their flagship programme called 'encompass'. This programme aims to create a digital record for

every citizen in Northern Ireland who receives health and social care. This is the biggest digital investment ever made by the HSC and is expected to enhance collaboration between staff to create a more unified healthcare system (HSCc 2022, 3). It will give those who access care the ability to view and update their health information (Encompass 2023a). In February 2023 the Department of Health Permanent Secretary announced that the South Eastern Health and Social Care Trust will be the first place in Northern Ireland to start using encompass on 9 November 2023, with other trusts following gradually between 2023 and 2025 (Encompass 2023b).

UK government-led initiatives

Funding businesses to develop technology to support Healthy Ageing

Notable work has also taken place at a UK-wide level. UK Research and Innovation (UKRI), for example, is a non-departmental public body sponsored by the Department for Science, Innovation and Technology (DSIT) (UKRI 2023). One of their focus areas or 'Challenges' is Healthy Ageing. UKRI are providing funding, research and knowledge exchange opportunities to projects led by businesses which allow people to remain active, productive, independent and socially connected across generations for as long as possible. As of July 2022 UKRI had invested £98 million in this effort, and sourced an extra £46 million of co-investment from industry across the UK. The Challenge has also brought together a community of practice, with a membership of 1146. One of the Challenge's projects

is 'Creating a Thriving Future for Health and Social Care', which is scaling up digital social care technologies, such as BelleVie Care. BelleVie Care uses self-managing teams of Wellbeing Support Workers to help older people staying in their own homes while allowing home carers to have attractive, meaningful careers. By July 2022, BelleVie had built eight teams and been rated 9.6/10 by clients (UKRI 2022).

A private 5G network in Liverpool to host social care technologies

Innovative work has also taken place to develop digital infrastructure to help support the care sector. From 2018, the Department for Digital, Culture, Media and Sport (DCMS) has funded the UK5G Innovation network, an independent and impartial innovation network dedicated to the promotion of research, collaboration and commercial application of 5G in the UK (Department for Digital, Culture, Media & Sport 2018). In Liverpool, the Liverpool 5G Create programme received over £4 million of DCMS funding to build a private 5G network designed to benefit local NHS, social care services and other public bodies (UK5G 2023). They used this network as a testbed for different technologies, such as 'Chill Panda' - a fun app to help children to manage anxiety, and 'My Sense', a range of telecare equipment which uses AI to monitor things like nutrition, independence, hydration and activity via Internet of Things sensors around the home, alerting any support networks if anything changes in the person's behaviour (Liverpool 5G Create 2021). Similar 5G projects have also taken place in Suffolk and Norfolk (Hamblin and Whitfield 2022).

Liverpool 5G Create 2019 findings

Key outcomes summary

- 70% of the products/services in the trial reported an increase in Technology Readiness Level (TRL) over the course of the project, with 55% reaching their target level during the project
- Over £1.1m additional funds spent on R&D due to the funded project
- Over 60 collaborations, partnerships and discussions with partner organisations or potential partner organisations.
- Liverpool 5G Health and Social Care testbed mentioned in over 160 press and media articles and consortium partners took part in over 60 conferences, events and dissemination activities
- Cumulatively, implementation of use cases could potentially result in cost savings to the Health and Social Care services of an estimated £247,688 per hundred users per year, after use case service costs (not including network costs). This assumes service users have multiple devices; any savings would be dependent on the needs of service users, their location, and the mix of devices that would be applicable.

- Liverpool 5G Health and Social Care Testbed 2019



Other initiatives

Provider-led initiatives

There are several care provider-led initiatives that support digital innovation in social care across England. These include Digital Social Care, which, as mentioned, is working closely with the NHS Transformation Directorate on their Digitising Social Care programmes. Outside their work with the NHS, they worked with the Care Providers Association (CASPA) to produce a set of 'North Star' principles to support digital transformation in social care. These stress the importance of digital systems being person-centred, intuitive, time-saving, and inclusive of social care providers and people receiving care in decision-making processes (Digital Social Care 2023 no date- a).

Skills for Care is an independent organisation in England which provides support and guidance to the social care workforce. It is a delivery partner for the Department of Health and Social Care, and works with social care leaders, the government and other partners to respond and adapt to the emerging trends and needs within social care. Skills for Care's role comprises workforce planning (using data and evidence to make sure social care attracts and recruits the right people); defining good practice standards for skills, knowledge, competencies and behaviours in social care; ensuring there is high quality learning and development available to support the skills for high quality care and support by shaping the market; and workforce development through learning programmes. A 2022 evaluation of Skills for Care's work found they had engaged with around 55% of care providing locations in England, though the specific reach of their individual programmes varies considerably. The evaluation attributes this to the limited budget of Skills for Care (Care Research 2022).

The-third sector

The National Care Forum, which is the membership organisation for not-for-profit organisations in the care and support sector, supports digital innovation for these organisations by running an annual Care Innovation Challenge. Winners receive £1000 in prize money, as well as media coverage and further mentoring to develop their idea (Care Innovation Hub 2022).

Catalyst is a non-profit which aims to transform civil society through digital data and design. They aim to break down the barriers preventing charities from adopting digital. In August 2020 they worked with the National Lottery Community Fund to launch a £5 million COVID-19 digital response fund, through which they awarded 223 grants to a variety of charities, supported by over 60 partners. The projects focussed on urgent needs for vulnerable groups hit hardest by the pandemic, but they have made sure the outcomes of these projects are available for others to reuse through their Service Recipes platform and a library of open working assets (Catalyst n.d.) For example, Barnardo's have contributed a guide of how they started to use WhatsApp to allow young people to communicate with their workers (Shared Digital Guides n.d.).

Technology providers

Technology providers are also supporting digital innovation in social care, including the Technology Enabled Care Association, who campaign for the increased uptake of Technology Enabled Care services. One of their campaigns is raising awareness of the analogue to digital phone network switchover, which will happen by 2025. They have published a range of guidance to support digital readiness, which is free to download on their website (TSA 2023).

Co-funding models

CC2i, mentioned previously here in the context of its work on the NHS and Local Government Association's Social Care Digital Innovation Programme, is a public sector co-funding platform that brings councils together to co-fund and co-design digital solutions to priority challenges (CC2i no date- b) They bring together challenges shared by at least 20 other organisations across the public sector and publicise 'pitches' to technology partners who may potentially have a solution (CC2i no date- c). They supported the development of MAST, and in 2022 conducted a deep dive across the adult social care digital landscape on behalf of the London Office of Technology and Innovation (LOTI 2022b).



Appendix 2 high level assessment of the structures and organisations in place to support digital innovation in social care in Wales

Below we refer to a minimum viable product of a database we have produced in collaboration with Aimee Twinberrow, Social Care Wales's new Digital Innovation Lead.

Mapping structures and organisations and developing a database

Throughout our desk research and conversations with stakeholders and experts, we have 'mapped' the structures and organisations we found. We initially identified 44 organisations that could support digital innovation in social care across the UK, and mapped this visually using Google Maps. We prototyped this version of the 'map' in our first workshop. Stakeholders provided feedback that it would be most useful to concentrate on organisations that could support innovation in Wales, and that a database format would be preferable. We narrowed down our organisations to 20 based in Wales offering support to Welsh organisations. We also identified additional five based across the UK that can offer support to Welsh organisations.

We worked with Aimee to categorise the support provided by these organisations as follows:

- Digital Technology Innovation Support
- Evaluation Support
- Innovation Development
- Business Case Support
- Auditing
- Project Management Support
- Research and Development
- Innovations Database
- Innovation Best Practice
- Data Resource
- Training
- Digital Standards
- Commissioning
- Advocacy for Telecare
- Baselineing
- Funding
- Data Sharing
- Horizon Scanning
- Strategy
- Regulation and Inspection

The database represents a minimum viable product (MVP), and there is more work to do to improve its accuracy and usability. We recommend Social Care Wales approach the organisations listed in the MVP to validate our categorisation and support they provide.

How we envisage this database being used

We think this database has two purposes:

- 1 To support innovators in local social care organisations in Wales access support for their activities.

A database of supporting organisations would be a useful addition to the new Social Care Wales Website currently being developed. The database lists the organisations along with the services they provide. This could be developed as a directory of the support available for the social care sector to refer to, and used as part of Social Care Wales's new innovation coaching offer.

We recommend building in a function with the database that makes support services searchable and could be used to search the support organisation named in the data by the support services they offer. If an organisation is developing an innovation and looking for funding support for example, we recommend that there is a function that identifies they should be able to identify all organisations which provide a 'funding support' service. This could save a lot of time for people looking for digital innovation support of any kind.

However, because these organisations are constantly changing, this database of supporting organisations will need to be maintained and kept up to date. This will require resource planning on behalf of Social Care Wales to monitor for ongoing changes to the digital innovation support organisations landscape in Wales. We recommend that Social Care Wales spend time building and maintaining meaningful relationships with these organisations whilst doing this.

- 2 To help enabling organisations like Social Care Wales understand what is taking place across the system, avoid duplication of effort, and understand and use health-led organisations' assets

As we explain below, most of the organisations we have collected in the database are health-led organisations. In many cases, these do have remits to support social care, but often their work is biased towards health-focussed projects. We hope that by making these organisations and their assets visible, enabling organisations like Social Care Wales both can avoid duplication of effort, and advocate for these organisations to put social care on an equal footing in their work.

Glossary of terms

Below we have provided a brief overview of some different terms that come up repeatedly in this review.

Social care

Social care includes a breadth of care and support activities. It includes a range of services and support provided to individuals who need assistance due to age, disability, illness, or other factors that affect their ability to carry out daily tasks or live independently, as well as statutory safeguarding measures to protect children and vulnerable adults from harm. The Social Services and Well-Being (Wales) Act 2014 provides the legal framework for improving the wellbeing of people who need care and support, and carers who need support, and for transforming social services in Wales. It is built on key principles, including: voice and control, prevention and early intervention, well-being and co-production.

Social Care Wales's vision is to make a positive difference to care and support in Wales for children, adults and their families and carers. To turn this vision into reality, they provide national leadership and expertise in social care and early years. They lead on regulating and developing the social care workforce, service improvement, data and research to improve care (Social Care Wales 2022).

This is a wide remit which covers many types of care and support provision available in Wales. However, we've found that most digital innovation work has focussed on improving care and support for those receiving adult social care services. Technology Enabled Care services (TECs) and telecare services are examples of digital innovation which support people to live at home independently, avoiding admittances to hospital, for example. This has been a policy priority in recent years, especially after the coronavirus pandemic (Department of Health and Social Care 2022). These types of technology often dominate the conversation about digital innovation in social care. In contrast, we've found there is a gap in support available for digital innovation that supports children, young people and families.

When we refer to social care in this report, we are referring to the wide range of care and support services that Social Care Wales seek to make a difference to, including both adults and children's services.

Data poverty

Nesta (2020) defines data poverty as those individuals, households or communities who cannot afford sufficient, private and secure mobile or broadband data to meet their essential needs.

Digital capabilities

Health Education and Improvement Wales (HEIW) define digital capabilities as the skills, behaviours and attitudes required to thrive in a digital world (HEIW

no date -a). They have developed a digital capabilities framework to support the health workforce. Again, our definition of digital capabilities depends on what skills, behaviours and attitudes we feel are necessary in order for a person to thrive with digital.

Digital Communities Wales defines five basic digital skills as managing information, communicating, transacting, problem solving and being safe online (Digital Communities Wales no date- b).

In the Digital Capabilities Framework assessment tool, the most basic capabilities level is described as someone who'd agree with the following phrase: "I consider myself a beginner, I have a basic understanding of software such as Excel and Word. I often ask my colleagues for help with technical difficulties" (HEIW n.d.).

Digital connectivity

Digital connectivity means being able to use digital technologies to connect with each other through accessing reliable broadband and mobile infrastructure.

Digital divide

Welsh Government (2023) defines the digital divide as the gap "between those who have the devices and data, as well as the skills and capabilities, and those who do not". Digital inequalities "encompass differences, lacks and limitations in access, skills and capabilities that have significant tangible consequences for citizens, households and communities" (2023).

Digital inclusion

Digital inclusion is defined in the Welsh Government's 2021 Digital Strategy for Wales as a mission to "equip people with the motivation, access, skills and confidence to engage with an increasingly digital world, based on their needs" (Welsh Government 2021).

We know that people who are more likely to access care and support services are also more likely to be digitally excluded. They are also more likely to be: older adults, disabled people, people with long-term health conditions, people with lower-than-average educational attainment, individuals and families with lower-than-average incomes, people in rural areas, people who speak Welsh as their first language, people who are socially isolated and lonely and people who are homeless (Digital Communities no date- a).

Digital infrastructure

Digital infrastructure includes devices, such as iPads, computers or smartphones, as well as connection to broadband and mobile networks.



Digital innovation

For the purpose of this review, we defined digital innovation in social care as the development of scalable technologies which target improvements in:

- Quality of person-centred care for people who access care and support.
- Quality of working conditions for care and support staff.
- Data collection and evaluation (which can improve areas such as performance monitoring and risk management).

We tested this definition during our conversations with stakeholders and experts. Broadly speaking, there was agreement that this captured the potential of digital innovation.

Digital maturity

Digital maturity speaks to how individuals and organisations are adopting and using digital technologies. Defining what is 'digitally mature' depends on how we expect individuals and organisations to be using technologies. A survey by Cardiff University defined the most digitally mature small-medium businesses as "adopters of superfast broadband with a very high proportion of employees with above-average ICT skills. (They) use a high number of digital applications" (Henderson et al 2020).

Digital readiness

Digital Social Care and Skills for Care have created a Measuring Digital Readiness tool for social care employers, which is hosted on their website. Digital readiness is defined as, "how capable their staff are of harnessing the benefits of digital tools and skills (and) whether they have the right infrastructure in place to use more digital tools" (Digital Social Care no date- a).

Digital service design

Mission One of the Digital Strategy for Wales (2021) prioritises digital services – delivering and modernising services so they are designed around user needs and are simple, secure and convenient. One proposed outcome of the strategy is that services will be available online wherever possible, and people will choose to use online services because they are easy and convenient and can be completed successfully unaided.

We have operated throughout this work with an assumption that all services that provide care and support, whether using digital technologies or not, should be designed in a user-centred way. User-centred service design methods, including User-Experience design, often champion innovation in the way they centre user-needs to generate creative new ideas and deliver enhanced experiences, incorporating digital elements where appropriate. These methods are crucial to ensuring that care and support staff and people who access care and support can positively interact with digital technologies.

We have operated on an assumption that digital innovation in social care encompasses a broader scope than digital service design, addressing social care challenges through the adoption of digital technologies and products, where digital service design focuses specifically on the design and optimisation of user-centred digital services.

Although they are not the focus of this report, user-centred design methods should be considered when implementing our recommendation that Social Care Wales should ensure the involvement of people who access care and support in digital innovation. User-centred design methods are one way in which organisations can ensure they champion involvement.

Digital social care record

We've found that the use of digital care records is being promoted in different settings across the four nations of the UK. NHS England explains: "A Digital Social Care Record (DSCR) allows the digital recording of care information received by an individual, within a social care setting, replacing traditional paper records. DSCRs are person-centred and enable information to be shared securely and in real-time with authorised individuals across the health and care sector" (NHS England n.d.).

Digital technologies in social care

Throughout this review we have referred to the definition of digital technologies in social care developed by academics Kate Hamblin and Grace Whitfield in a Centre for Care article (2022). This says that digital technologies include:

- Those used to ASSIST (supporting people with physical or learning difficulties to undertake specific tasks).
- Those used to MONITOR (telecare, telehealth and telemedicine devices, collectively known as Technology Enabled Care services or TEC – this is described in more detail below).
- Those used to ORGANISE and RECORD care (this can include mainstream email platforms or apps used by homecare workers to record notes).
- Those used to COLLECT and ANALYSE data (information from telecare systems can be analysed using algorithms and AI).
- Those used to CONNECT (at a fundamental level this includes digital infrastructure like 5G and fibre broadband).

We noted there is a marked inequality in the use of these different technologies across social care.



Enabling organisations

Throughout this review we've referred to 'enabling organisations' or 'enablers' in digital innovation as defined by the Supporting Adult Social Care Innovation (SASCI) project funded by the Economic and Social Research Council (SASCI 2022). The SASCI project identified three groups as having important roles in innovation, including 'enablers' - those with the power to effect change to support innovation (Y Lab 2022).

Involvement in digital services

Wales' Well-Being of Future Generations Act (2015) defines involvement as one of its key ways of working. Involvement is "the importance of involving people with an interest in achieving the well-being goals, and ensuring that those people reflect the diversity of the area which the body serves" (Future Generations Commissioner for Wales n.d.). The Act also requires public bodies to 'involve communities and decisions which may change the services you provide to them'. Co-production, or working with and involving individuals, their family, friends and carers to make sure their care and support is the best it can be, is also one of the core principles of the Social Services and Well-Being Act (2014).

There are lots of ways public bodies can involve people in changes to services. For example, the Digital Inclusion Alliance references the need to adopt user-centred design or co-production principles to ensure the lived experience of people who face digital exclusion is at the heart of digital interventions (Digital Communities Wales 2023).

Technology Enabled-Care

TEC Cymru defines Technology Enabled Care (TEC) as the "use of technology by professionals and citizens to support promotion, self-administration, monitoring and delivery of health or care services. Broadly speaking it includes the following types of technology: Video Consulting, Telehealth, and Telecare and Assistive Technologies." (TEC Cymru n.d.) We've found that Technology Enabled Care has been a policy priority in recent years due to its potential to reduce strain on the health service, and so is often the first thing that comes to mind for people when thinking about digital innovation in social care.

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