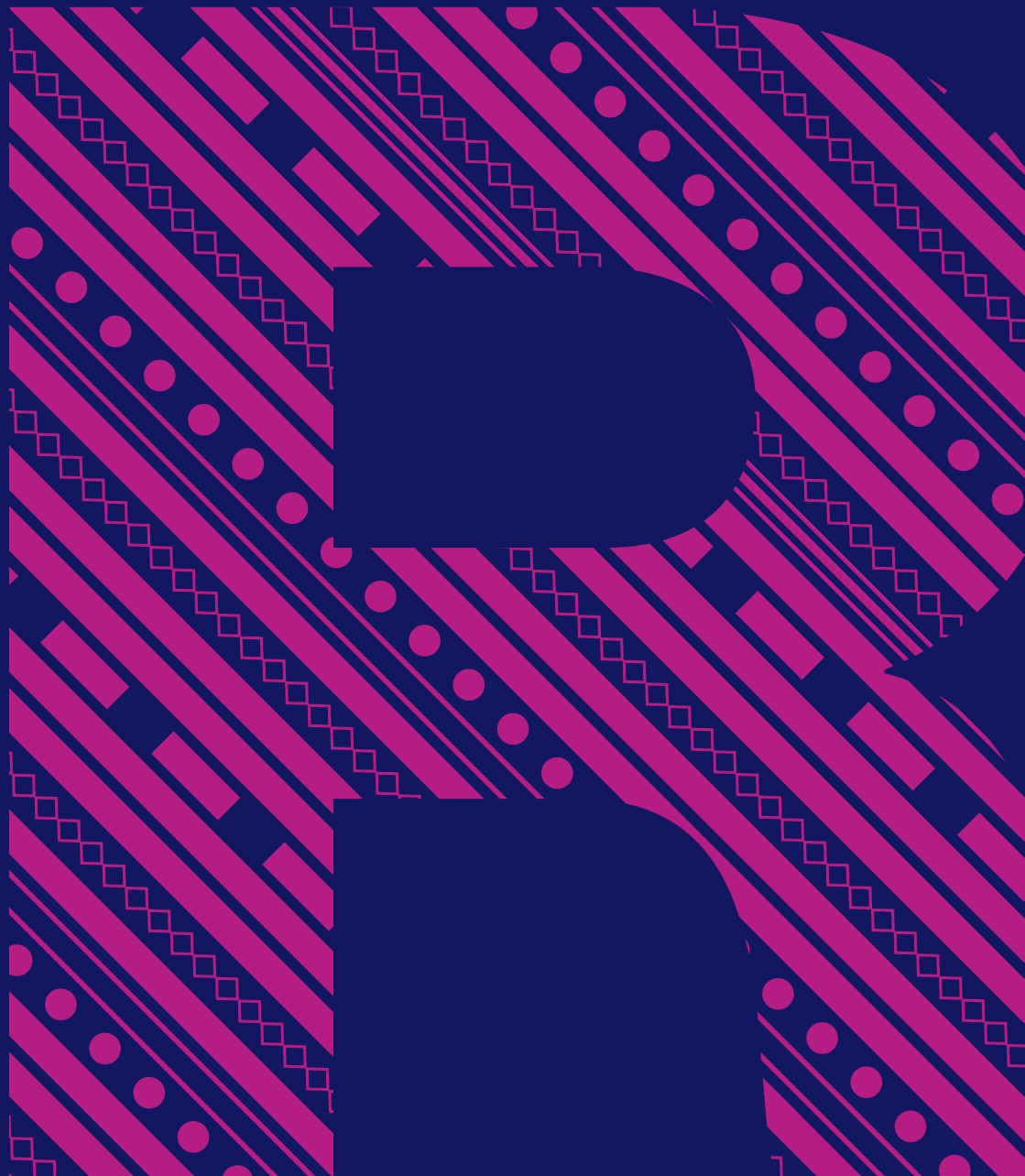




DIGITALLY ENHANCED ADVANCED SERVICES EPSRC NETWORKPLUS

Charity and Voluntary Research Agenda



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EXECUTIVE SUMMARY

The EPSRC-funded DEAS NetworkPlus aims to bring together a vibrant community with the ambition of positioning the UK as the internationally leading research and practice hub for Digitally Enhanced Advanced Services (DEAS). To support this ambition the EPSRC award has been used to create a network of businesses and researchers to enable a coordinated programme of research to be designed and piloted in four sectors: manufacturing, transportation/mobility, charity/voluntary and financial services.

Rather than focus on the product or service that is delivered, DEAS focus on how the product or service is used to create valuable outcomes for the customer, and how innovative digital technologies can facilitate this. This represents a major change in how firms earn money and is being enabled by transformative digital technologies that allow for example, payment per use or payment for availability or outcome.

The NetworkPlus funded exploration of how DEAS might apply to the charity/voluntary sector was a direct response to the COVID-19 pandemic. The sector is crucial to the UK economy with an annual income of £431.7 billion, adding £12.2 billion to the UK economy and employing 2.7% of the UK workforce¹.

In the first three sectors (manufacturing, transportation/mobility and financial services), research agendas were developed², and subsequently associated pilot projects were funded on the basis of successful applications. In the case of the charity/voluntary sector, pilot projects were funded first, to be followed by the generation of this research agenda. A different approach was needed for two main reasons. Firstly, there is a lack of servitization research specific to the sector. Work was needed to understand what servitization might mean in this sector.



WHAT HAS BEEN LEARNT through DEAS FUNDED PROJECTS?



¹ <https://www.ncvo.org.uk/about-us/media-centre/briefings/1721-fast-facts-about-the-charity-sector>
² Copies of all research agendas can be found on the DEAS website (www.deas.ac.uk/outputs)

Secondly, the DEAS charity funding call was also a direct response to the pandemic and the funded projects allowed a quicker response to the impact of COVID. To make this new approach work, the theoretical framework and methodology that was used to produce the previous research agendas were both adapted which allowed the exploitation of knowledge from earlier funded projects as well as academics and practitioners working in the sector.

Using the knowledge gained from the funded research projects and the adapted theoretical framework the team identified nine research themes which form the DEAS research agenda for the charity/voluntary sector. The nine research topics are:

- » How can innovative digital technologies enhance communication, education and engagement within and between organisation and customers about DEAS within the charity/voluntary sector?
- » How can innovative digital technologies allow us to identify suitable DEAS outcomes in the charity/voluntary sector that do not lead to greater inequality?
- » How can innovative digital technologies enhance business model design, adoption and evaluation to deliver value through DEAS within the charity/voluntary sector?
- » How can innovative digital technologies allow the management and analysis of data within the charity/voluntary sector?
- » How can innovative digital technologies allow DEAS to be delivered across organisations within the charity/voluntary sector?
- » How can innovative digital technologies enhance organisation and cultural change for effective adoption of DEAS in the charity/voluntary sector?
- » How can policy (both local and national) help facilitate the adoption and delivery of DEAS within the charity/voluntary sector?
- » How can DEAS allow charities attract funding in a sustainable manner?
- » How might the adoption of the DEAS in the charity/voluntary sector increase productivity and sustainable value that the UK economy is able to deliver to society?

This document will introduce the DEAS network, the importance of the charity/voluntary sector and outline these nine topics, the challenges that relate to them and examples of additional projects that would help address them.



CONTEXT

2.1 AN INTRODUCTION TO DIGITALLY ENHANCED ADVANCED SERVICES

Digitally Enhanced Advanced Services (DEAS) are traditionally viewed as high-value business models that focus on the delivery of ‘outcomes’ rather than products. These usually include (i) revenue payments structured around product or service usage and customer outcome; (ii) performance incentives (e.g. penalties for in-use product or service failure); and (iii) long-term contractual agreements between organisations (e.g. spanning five, ten or 15 years) and cost-down commitments³.

Well-known examples of DEAS in the manufacturing sector include Xerox’s Print Management offering³, which bundles printing-equipment and maintenance-services whereby customers are charged for the use of the product-service-bundle (i.e. per print); or MAN’s Pay-per-Kilometre offering⁴, which bundles truck, maintenance and driver-management services where customers are charged for the extent of the use of the bundle (i.e. distance driven).

Servitization is often considered as a concept confined to manufacturing. One of the aims of the DEAS Network is to explore how the concept can be applied to other sectors. There are key challenges in doing this for the charity/voluntary sector. There are no well-known examples of DEAS in the sector. Charities are typically

considered service providers but what charities produce, in terms of outcomes, are not always clearly articulated. Therefore, part of the work in developing this agenda was to establish what servitization means for the charity/voluntary sector and establishing what outcomes they could be considered to deliver.

Whilst exploring the application and use of DEAS in different sectors, it has become apparent that the definitions and explanations of servitization are usually the ones that originated from manufacturing (e.g., the use of the term customer is suitable in manufacturing but not in the charity sector where the term beneficiary would be more suitable). Three sector agnostic principles of servitization have been identified as part of the work of the DEAS network: the use of data-driven digital technologies, delivery of improved outcomes and changes in business models⁵. However, further work is needed to develop these principles and provide explanations that are applicable to different sectors and accessible to researchers in different disciplines.

Digital technologies play key roles in the development and delivery of DEAS, especially the use of data analytics. Within the charity/voluntary sector, we found that digital technologies have played a key role in facilitating delivery of services during the pandemic. However, COVID has also revealed that many problems need to be overcome if the opportunities afforded by technology are to be possible. These problems are discussed in section 6.

³ Baines, T and Lightfoot, H. 2013, Made to Serve: How Manufacturers Can Compete Through Servitization and Product – Service Systems, Wiley, London, UK

⁴ Bustinza, O; Bigdeli, A; Baines, T and Elliot, C. 2015, Servitization and Competitive Advantage: The Importance of Organizational Structure and Value Chain Position, Research-Technology Management, Volume 58, 2015 - Issue 5

⁵ Wood and Godsiff (2021). Establishing the Core Principles of Servitization for Application Outside Manufacturing. In Proceedings of Competitive Advantage in the Digital Economy (CADE) 2021.

2.2 WHY DIGITALLY ENHANCED ADVANCED SERVICES ARE IMPORTANT TO THE UK ECONOMY

In 2017, the Chief Economist of the Bank of England, Andy Haldane, gave a speech to the London School of Economics in which he referenced the ‘productivity puzzle’⁶. Since 2008, UK productivity growth has underperformed consistently, relative to forecasts, and indeed productivity has hardly improved at all in the last ten years. Part of the root of this problem is historical; initiatives to improve productivity have tended to focus on improving the efficiency of ‘inputs’ (i.e. reducing time and costs), rather than increasing ‘outputs’ (i.e. increasing value created), and today there is a danger of repeating this mistake with digital technologies.

The value creation potential of digitalisation is immense, with a total estimated global economic impact of £800 billion to £2 trillion per year by 2025⁷. There is, therefore, much excitement around the potential of digital technologies to enhance the efficiency of the organisations that adopt them and to transform all sectors of the economy. Additionally, since 1948 the demand for services has grown exponentially while the proportion of GDP from production and manufacturing has contracted. The importance of services, and servitisation in the UK, is reflected within the 2018 report by the UK Government Chief Scientific Adviser: *Services Transformed: Growth Opportunities for the UK Service Economy*⁸. Within the UK, for example, approximately 80% of GDP now comes from services-based activities. Furthermore, the nature of services is changing; we are in a world where fewer people are buying conventional products and services, and instead more and more are seeking to buy the ‘outcomes’ that these enable. Quite simply, rather than ‘buying an engine’ customers want to buy ‘thrust’, rather than ‘buying a car’ they want ‘mobility’, rather than ‘buying insurance’ they want ‘reassurance’. In this way, the world of ‘selling things’ is giving way to one of ‘provision of outcome’. Indeed, a survey published by ServiceMax from GE Digital⁹ found that 77% of respondents (600 IT decision makers and field service management leaders) believed that Generation Z (those born from 1994 onwards) will be the last to experience a product-dominated economy.

⁶ Haldane, A. 2017, Productivity Puzzles, [online] 20 March 2017, London School of Economics, available at: <http://www.bis.org/review/r170322b.pdf>

⁷ World Economic Forum, 2016. Unlocking Digital Value to Society: building a digital future to serve us all, available at: <http://reports.weforum.org/digital-transformation/unlocking-digital-value-to-society-building-a-digital-future-to-serve-us-all/>

⁸ Government Office for Science (2018). ‘Services Transformed: Growth Opportunities for the UK Service Economy’.

⁹ ServiceMax Press Releases (2018). Gen Z Will Be the Last Generation to Remember a Product-Based Economy, According To New Global Research, available at: <https://www.servicemax.com/press-releases/gen-z-will-be-the-last-generation-to-remember-a-product-based-economy>

2.3 THE EPSRC DEAS NETWORKPLUS

Our vision is that the UK should be the internationally leading research hub for the innovation of Digitally Enhanced Advanced Services and that this capability will significantly amplify the productivity, growth and resilience of industry in the UK. The aim of this NetworkPlus is to:

‘Create a cohesive community of researchers and practitioners, working collectively across disciplines (e.g. computer science, engineering and business) and industry sectors, to accelerate the innovation of DEAS and improve UK productivity’.

This Digital Economy NetworkPlus will deliver a vibrant community that will position the UK as the internationally leading research hub for Digitally Enhanced Advanced Services. Rather than focus on the product that is delivered, DEAS focuses on the capability that the product provides. This is a major change in how firms earn money and is being enabled by transformative digital technologies that allow for example, payment per use or availability or outcome. The traditional focus of productivity (outputs/inputs) is on internal efficiency but digital technologies applied to advanced services also transform the value of the output and outcome.

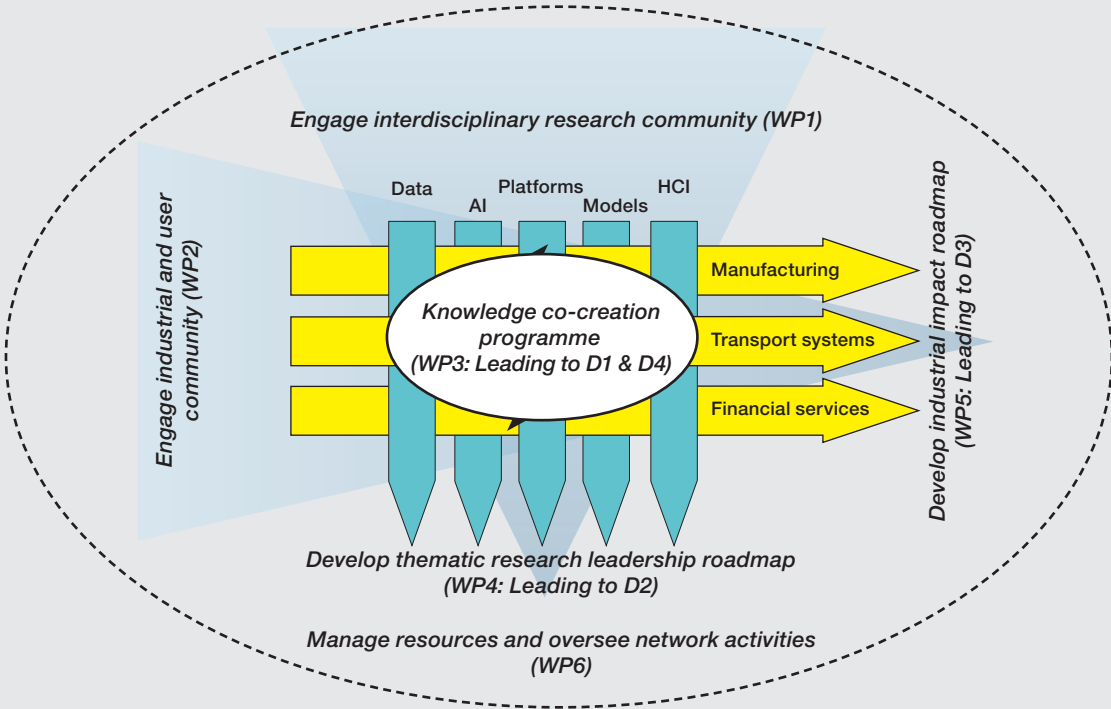
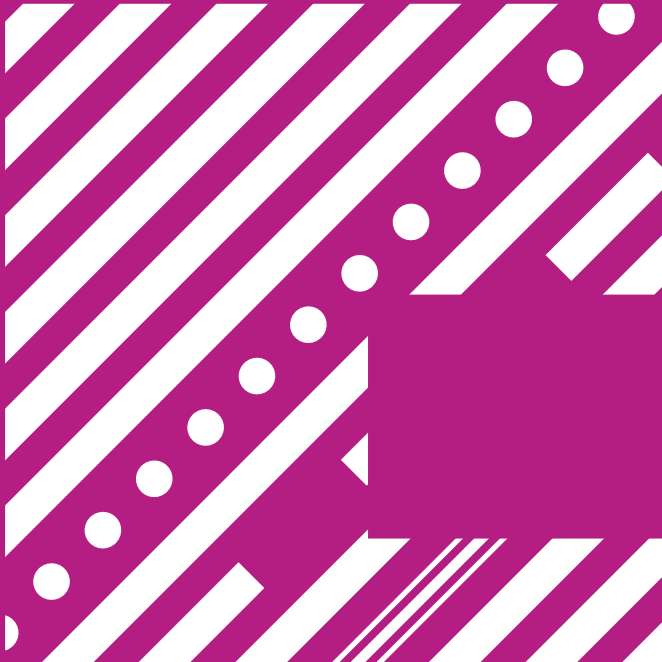


Figure 1: The DEAS NetworkPlus comprises an integrated programme of activities. There are five technical work packages (WP1-5), which run concurrently. WP 1&2 focuses on processes for identifying and attracting researchers and practitioners, WP3 is then a programme of co-creation activities, with WP4&5 creating roadmaps for research and impact. This programme will be overseen throughout by a management work package (WP6).

THE DEAS NETWORKPLUS WILL DELIVER FOR THE UK:

- (D1) a new, interdisciplinary community progressing the topic of DEAS,
- (D2) a road-map articulating a thematic research agenda and priorities for international leadership in this topic,
- (D3) an equivalent road-map illustrating the opportunity space for maximising impact on different sectors based on their level of maturity e.g. manufacturing, transportation/ mobility and financial services,
- (D4) a portfolio of innovative research projects that will accelerate the impact of DEAS in collaborating companies.

Success will be measured through: (i) the scale and diversity of the community we develop, (ii) the level of activity and participation across this community on publications, events, workshops, and research agenda (iii) the relevance and direct impact on industry.



THE CHARITY/ VOLUNTARY SECTOR

Also referred to as the Third sector, or Not-for-profit sector, the charity and voluntary sector has an annual income of £431.7 billion, adds £12.2 billion to the UK economy and employs 2.7% of the UK workforce¹⁰. Charities are funded by grants, donations, trading and selling services. The majority of charities (nearly 97%) have an income of less than £1 million and have often have limited funds and resources. Therefore, it is important that spending and delivery of services are as efficient and effective as possible.

Charities are regulated in England and Wales by the Charity Commission who also maintain a register of charities. The regulation clearly states what a charity can and cannot do with its money. The Fundraising Regulator oversees and enforces regulation related to fundraising. This regulation is a set of standards that have been set and agreed upon by the charities themselves.

Each charity must submit an annual report to the Charity Commission. This report will state: the purposes of the charity, the activities undertaken to achieve these purposes and the years accounts. The reports are available to view on the Charity Commission's website and help provide transparency with regards to spending.

Our consideration of the charity/voluntary sector was a direct response to COVID. The COVID-19 Voluntary Sector Impact Barometer, which explores the impact of the pandemic on voluntary organisations, surveyed 700 organisations. 56% of those surveyed expected demand for their services to surge but eight out of ten believed that the pandemic would have a negative impact on their ability to deliver their objectives. 60% said that their operating costs had increased due to the additional safety measures required. It was clear that already limited resources were needing to be stretched further and the question arose as to how DEAS and the network could help.

¹⁰ <https://www.ncvo.org.uk/about-us/media-centre/briefings/1721-fast-facts-about-the-charity-sector>



DEVELOPMENT PROCESS OF RESEARCH AGENDA

4.1 AIM

This report establishes the research agenda for the Digitally Enhanced Advanced Services NetworkPlus in the charity/voluntary sector.

4.2 METHODOLOGY

The DEAS NetworkPlus Team (see Appendix 2) have established the required characteristics of a developed research agenda as being:

- » broad – to cover a wide range of related areas including organisational change, digital technology, techniques, and processes;
- » inclusive – to look at the challenges from a range of disciplines;
- » balanced – in order to be guided by theory to ensure a sensible range of topics;
- » exploratory – to be aligned with the overall objectives of DEAS NetworkPlus, and
- » relevant – to lead to impact on business and make contribution to knowledge.

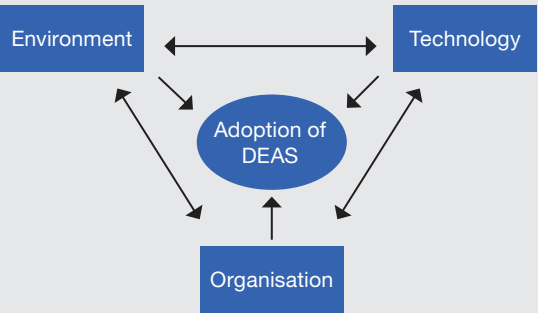


Figure 3:
The Technology–Organisation–Environment Framework

For the previous three research agendas (i.e., manufacturing, transportation/mobility and financial services), a three-step process was adopted to ensure these characteristics were met: step 1) groundwork to develop a relevant theoretical framework; step 2) hold a physical workshop bringing together academics and industry to help understand the challenges and opportunities faced by organisations who are trying to adopt DEAS; and, step 3) use a Delphi methodology to validate and refine what was captured in step 2.

Due to the restrictions related to COVID-19, namely social distancing, working from home and travel restrictions, the DEAS team adapted this methodology for the finance theme agenda (the third to be prepared) to allow for virtual instead of physical meetings. A virtual environment brings challenges but also opportunities. When taking place physically, workshop attendees can be restricted to the location of the workshop venue (i.e., travel time and accessibility). External factors such as delayed trains and adverse weather can lead to a last-minute reduction in the number of attendees. A virtual meeting involves no travel time, and can be more easily scheduled.

This charity research agenda was developed with the help of two virtual meetings. To ensure everyone had the opportunity to speak and feel included in the discussions, each virtual workshop took the format of a roundtable. Unlike the previous research agendas, pilot projects had already been commissioned by the DEAS network and finished before the agenda was written. This was useful given the lack of research literature and very low use of DEAS within the charity and voluntary sector.

An initial session set the scene with presentations given by each of the four funded DEAS charity/voluntary projects¹¹. An open discussion of attendees allowed the concepts that had arisen in the presentations to be discussed in more detail. A second roundtable was held to bring together representatives from charities and academia to facilitate a more focused discussion. The process was much more iterative and less linear.

A summary of the process used to produce this research agenda, and ensure it met the characteristics of the previous three, is as follows:

Step 1 – The groundwork: to make sure that the research agenda is broad and balanced the DEAS NetworkPlus Team developed a theoretical framework. The foundation of this approach is the empathise phase of the design thinking methodology. The framework is designed to enable us to (1) capture inclusive viewpoints on the challenges, (2) classify the empirical discussions in a structured way, and (3) synthesise an agenda for future projects.

Step 2 – Two virtual roundtables: one which presented the DEAS funded projects and a second for more detailed discussions on what had been learnt by academics and industry practitioners.

For the second roundtable, the overall question that was presented was “How can transformative digital technologies accelerate the adoption of advanced services within charity and voluntary sectors?”. Each of the projects was invited to describe the organisations that they were working and its development toward advanced services using the Technology–Organisation–Environment Framework as defined by these questions:

- » What advanced service offering do the charity/voluntary organisation (aspire) to have (or enable)?
- » What organisational challenges were experienced/anticipated in achieving this?
- » What technological challenges were experienced/anticipated in achieving this?
- » What business environment challenges were experienced/anticipated in achieving this?

For each of the virtual sessions, all the discussions were captured in a list of comments and questions which firstly set out a broad portfolio of research and then, from the discipline focussed discussions developed a deeper understanding of where the research issues were located. These discussions were also captured by a visual scribe¹² in a series of colourful mind-maps, synthesising the essential elements of the event into a combination of words and images.

Step 3 – The comments and questions from Step 2 were validated and refined by the researchers to produce the research agenda.

¹¹ See Appendix 3 for a list of the four charity/voluntary projects that were funded.

¹² Josie Ford, Studio Jojo

RESEARCH THEMES

As a result of following the methodology described in Section 3, the following nine research themes have been identified:

- 5.1. How can innovative digital technologies enhance communication, education and engagement within and between organisation and customers about DEAS within the charity/voluntary sector?

5.2. How can innovative digital technologies allow us to identify suitable DEAS outcomes in the charity/voluntary sector that do not lead to greater inequality?

5.3. How can innovative digital technologies enhance business model design, adoption and evaluation to deliver value through DEAS within the charity/voluntary sector?

5.4. How can innovative digital technologies allow the management and analysis of data within the charity/voluntary sector?
- 5.5. How can innovative digital technologies allow DEAS to be delivered across organisations within the charity/voluntary sector?

5.6. How can innovative digital technologies enhance organisation and cultural change for effective adoption of DEAS in the charity/voluntary sector?

5.7. How can policy (both local and national) help facilitate the adoption and delivery of DEAS within the charity/voluntary sector?

5.8. How can DEAS allow charities attract funding in a sustainable manner?

5.9. How might the adoption of the DEAS in the charity/voluntary sector increase productivity and sustainable value that the UK economy is able to deliver to society?

These research themes will be described in more detail on the following pages.



5.1

How can innovative digital technologies enhance communication, education and engagement within and between organisation and customers about DEAS within the charity/voluntary sector?

INTRODUCTION

DEAS are not well known in the charity/voluntary sector and there appears to be little servitisation research related to the sector. There is a need to raise awareness of what DEAS are and how they could benefit the charity/voluntary sector. DEAS rely on the use of innovative digital technologies. However, charities have limited resources and budgets. The digital maturity of an organisation must be considered. The digital needs and requirements within an organisation will be mixed and varied. Education and training could help improve the level of digital skills within the organisations wishing to adopt DEAS.



KEY QUESTION

What educational tools could be developed that would enhance knowledge of DEAS and to demonstrate the value of a DEAS offer in terms that both the organisations within the sector, and their funders and beneficiaries, would understand?

CHALLENGES

How can organisations who are not digitally mature understand, justify and establish a DEAS offering? How can DEAS be justified to funders (e.g., government, funding bodies, fundraisers)? Could educational tools assist with adoption challenges related to DEAS that were noted within discussions (e.g., lack of technical support, differing digital needs, varied digital skills)? How can education tools help organisations with their digital maturity? How can organisations who rely on volunteers retain learning? Will education tools ensure knowledge remains tacit? How can DEAS ensure digitally inequality does not increase with a reliance on innovative digital technologies? Could benchmarking of different providers/technical options help improve the digital maturity of organisations?

POSSIBLE RESEARCH PROJECTS

- » How can innovative digital technologies (e.g. gamification, Virtual/Augmented Reality) help the different stakeholders understand the value of DEAS?
- » How do you demonstrate the value of DEAS both internally and externally?
- » How can tools (e.g., training, infrastructure guidance, benchmarking) help assess and improve the digital maturity of organisations?

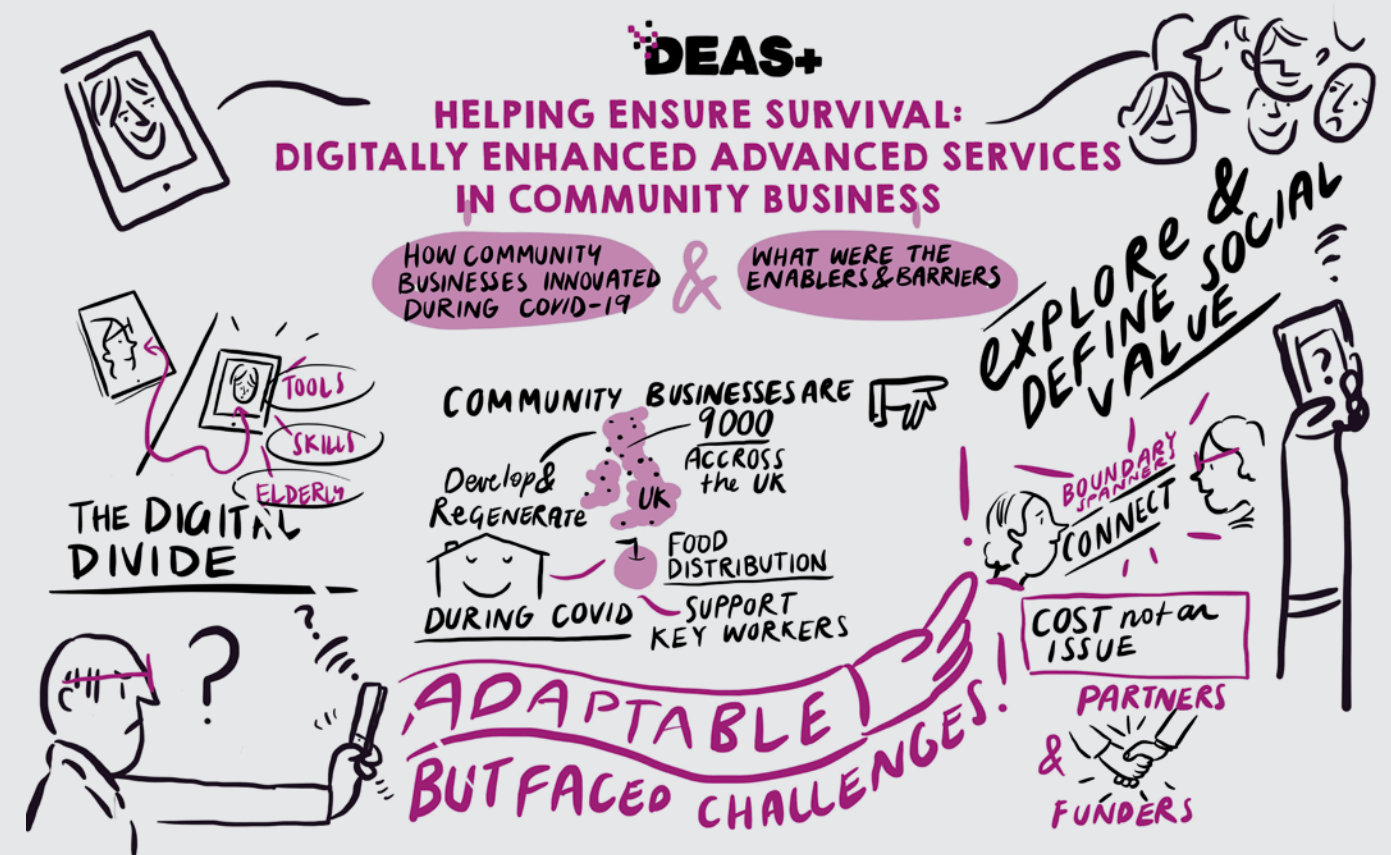
5.2

How can innovative digital technologies allow us to identify suitable DEAS outcomes in the charity/voluntary sector that do not lead to greater inequality?

INTRODUCTION

Charities are funded to achieve key outcomes that are linked to a specific project or the overall aim of the charity. Unlike profit organisations, non-profit organisations will also typically have core social outcomes (e.g., related to mental health or homelessness). The outcomes will need to satisfy both the funder and the beneficiary of the service. At the heart of any charity the biggest objective is for it to have no need to exist. A perfect charity would put itself out of business.

The development and maintenance of relationships is considered very important within many sectors (e.g., between the provider and the customers/beneficiaries/stakeholders); for charities this could relate to the relationship with those who are benefitting from their services as well as those that are funding the services. Individuals and funders are changing their behaviour and their expectations. DEAS rely on the use of innovative digital technologies. Digital can allow more transparency. The application of DEAS, and the use of innovative digital technologies, could provide a way of responding to these evolving needs and expectations. However, it is important that this requirement does not lead to greater inequality for those who are benefitting from the DEAS offering by a charity/voluntary sector. Digital inequality is a key consideration. Most charities have to catch up on digital skills and digital literacy compared to for-profit companies. A charity's clients typically have multiple needs and will approach charities when they are in vulnerable contexts. The clients/beneficiaries are likely to have and to continue to have limited digital resources and digital skills.



KEY QUESTIONS

How can innovative digital technologies help providers of DEAS in the charity and voluntary sector understand identify and create advanced services that truly meet both the beneficiaries and the funders needs? What do the outcomes of these services look like?

CHALLENGES

How can a charity/voluntary organisation define a DEAS offer that matches the needs of the beneficiaries and the funders? How can providers of DEAS adapt to evolving needs of both the beneficiaries and the funder? How can DEAS offering not lead to greater inequality? How can digital inequality be addressed given the requirement of digital technologies?

POSSIBLE RESEARCH PROJECTS

- » How can digital technologies help establish and maintain better relationships with the beneficiaries and/or funder of the service?
- » How can innovative digital technologies be used to measure or evaluate the outcomes to satisfy funder requirements?
- » How can a DEAS provider ensure that it does not lead to greater digital inequality?
- » How can providers of DEAS identify new potential services offerings through the use of innovative digital technologies?

5.3

How can innovative digital technologies enhance business model design, adoption and evaluation to deliver value through DEAS within the charity/voluntary sector?

INTRODUCTION

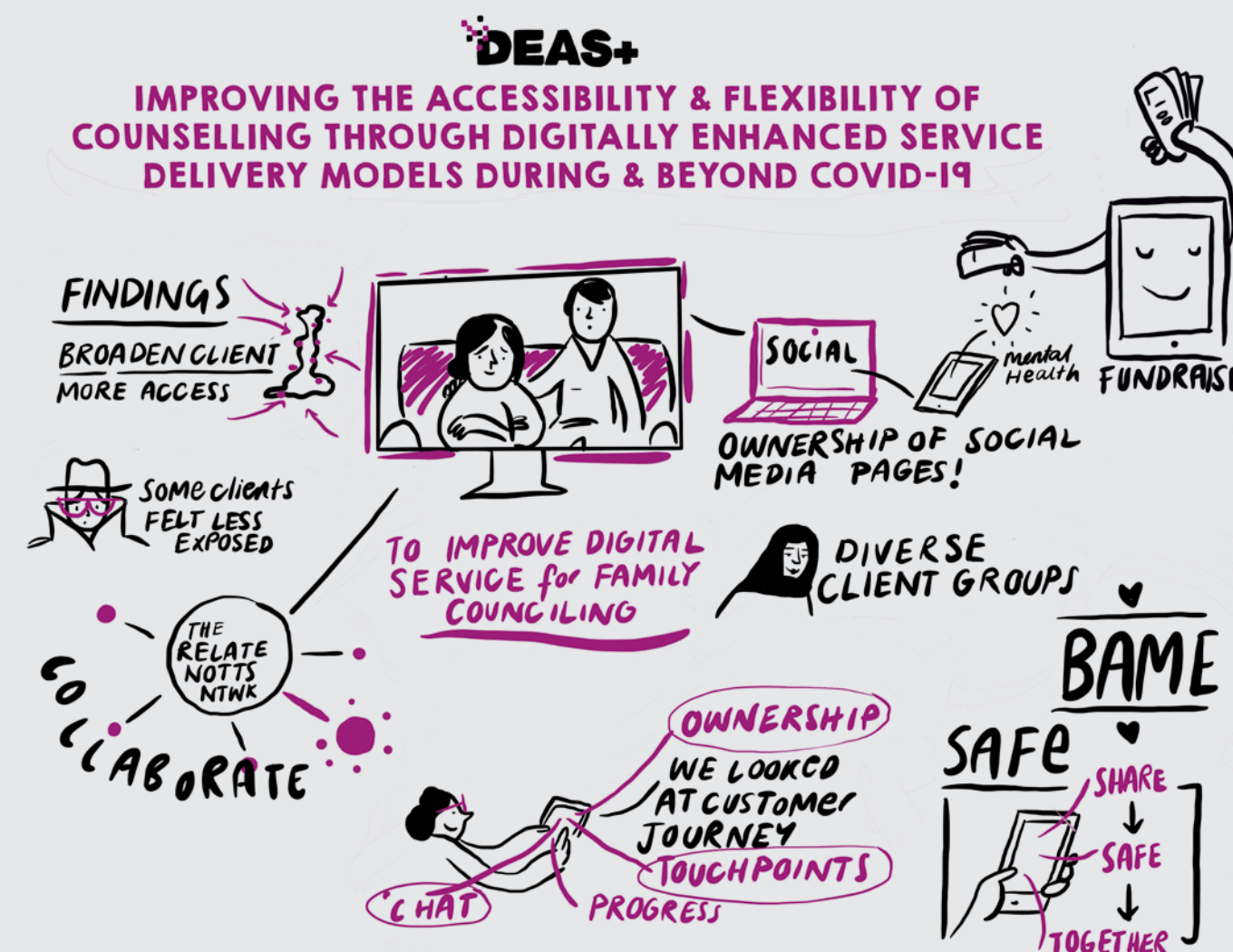
The adoption of DEAS requires a change in “value” proposition and “business” model. Research is needed to understand how “value” is created in the charity/voluntary sector and how this might differ from other sectors. An organisation offering DEAS is likely to need a new business model and a new operating model, both of which could provide a challenge for charities. Charity will always prioritise use of resources that is socially driven instead of being digitally driven. Charity and voluntary organisations normally have strict parameters set by funders. Environmental/social and economic sustainability partnerships can be important for bringing out new business models. Charities have a core social outcome. Partnerships can be key. COVID has brought some charities together with digital helping with the formation of partnerships.

KEY QUESTION

How do you combine digital technologies, business organisation and digital strategies to deliver value to charity and voluntary organisation stakeholders through DEAS?

CHALLENGES

How should charities and voluntary organisations adopt a DEAS business model that reflects the evolving needs of their beneficiaries? How can DEAS business models be evaluated to satisfy the requirements of the funders? How can digital strategies required for a DEAS business model align with the organisational strategy? Can a DEAS business model help increase the diversity of the beneficiaries of the offering?



POSSIBLE RESEARCH PROJECTS

- » Can digital technologies build dynamic business models that take account of economic, environmental and personal factors associated with financing and delivering of DEAS within the charity/voluntary sector?
- » Develop a tool to allow an organisation to build a business case to switch to DEAS.
- » Develop a tool to help justify or evaluate a DEAS business model for funders.
- » How can charities be aware of/learn what is available and what is appropriate technology to implement DEAS given limited resources?
- » How does the digital maturity of an organisation impact its ability to adopt DEAS?
- » How might DEAS improve a charity's relationship with their beneficiaries and funders?
- » What are likely to be “hybrid” models of working going forward?

5.4

How can innovative digital technologies allow the management and analysis of data within the charity/voluntary sector?

INTRODUCTION

DEAS are data driven. However, in the charity and voluntary sector much of the data that is collected is personal data. This has legal (e.g., GDPR) and ethical implications. Personal data is very sensitive, even more so given the nature of many services provided by the charity/voluntary sector. The management and sharing of such data must be carefully considered. What data must be collected? What data must be shared within or between organisations? Given the specialist nature of charity services, would it be possible, with the permission of the client to link up to the most appropriate service provider? The way in which the data is analysed, and the insights that the analysis might give, also raise ethical questions. Data security is an ongoing issue.



KEY QUESTIONS

What data is needed to allow the financing and adoption of DEAS? How can the data be securely shared, ethically managed and analysed to facilitate DEAS among beneficiaries and charity/voluntary organisations?

CHALLENGES

What data is really needed to facilitate the financing, operation and evaluation of a DEAS offering? How can data be presented in a way that allows informed decisions to be made? Who owns this data? Who needs to access it and use it? What value does individual data have? What control does/should an individual have over their usage data? What data should be shared and how? What methods would identify the most suitable insights relating to DEAS? How can uncertainties in the data analysis be shown?

POSSIBLE RESEARCH PROJECTS

- » How can data be collected and shared in a secure and ethical way?
- » Develop a tool that shares good practise on how data can be shared within/between organisations.
- » Develop possible data sharing models between charities where there is synergy.
- » How do you represent complex datasets arising from DEAS to the right people in the right way?
- » What are the challenges with dealing with personal data?
- » What regulation is required relating to the collection and sharing of data?

5.5

How can innovative digital technologies allow DEAS to be delivered across organisations within the charity/voluntary sector?

INTRODUCTION

Each charity/voluntary organisation typically has their own specialism (e.g., providing food, shelter or mental health support). Even those that are part of a national charity tend to be locally administered. However, a beneficiary may need the support of more than one organisation. Would it be possible, with the permission of the client, for one charity to link up to the most appropriate charity/voluntary service provider? Given their limited resources, it may be beneficial to share access to digital technologies. The sharing of information and/or digital technologies would have implications for data sharing and data management.



KEY QUESTION

How can organisations in the charity/voluntary sector work together to facilitate and deliver DEAS and better outcomes for their stakeholders?

CHALLENGES

What value does the sharing of data and/or digital technology have for the development and delivery of DEAS within the charity/voluntary sector? Where can innovative digital technology help? How can providers with access to suitable digital technologies be identified? How can charities where there is synergy be identified?

POSSIBLE RESEARCH PROJECTS

- » What are the key inter-organisation barriers to/ enablers for DEAS implementation?
- » What are the different touch points with clients/stakeholders?
- » Develop a tool for systematically benchmarking the different providers/technical options.
- » How can national charities adopt DEAS at a local level?
- » What would community interest groups (e.g., local animal charities) need to adopt a DEAS solution across them?
- » How can digital technologies help identify organisations with a shared interest or outcome to increase service reach give limited resources?
- » How can digital technologies expand the geographic reach and reach more individuals that would benefit from the service?

5.6

How can innovative digital technologies enhance organisation and cultural change for effective adoption of DEAS in the charity/voluntary sector?

INTRODUCTION

Organisations are often reluctant to adopt new methods and systems because they are unsure of their own readiness for the change or they lack the necessary skills or incentives. Those who wish to adopt a servitization business model need to know the requirements of their beneficiaries and funders, and know that they have the internal conditions and personnel in place to achieve operational effectiveness. All stakeholders must have confidence in the digital technology and that the organisation has access to the necessary technical knowledge and skills.

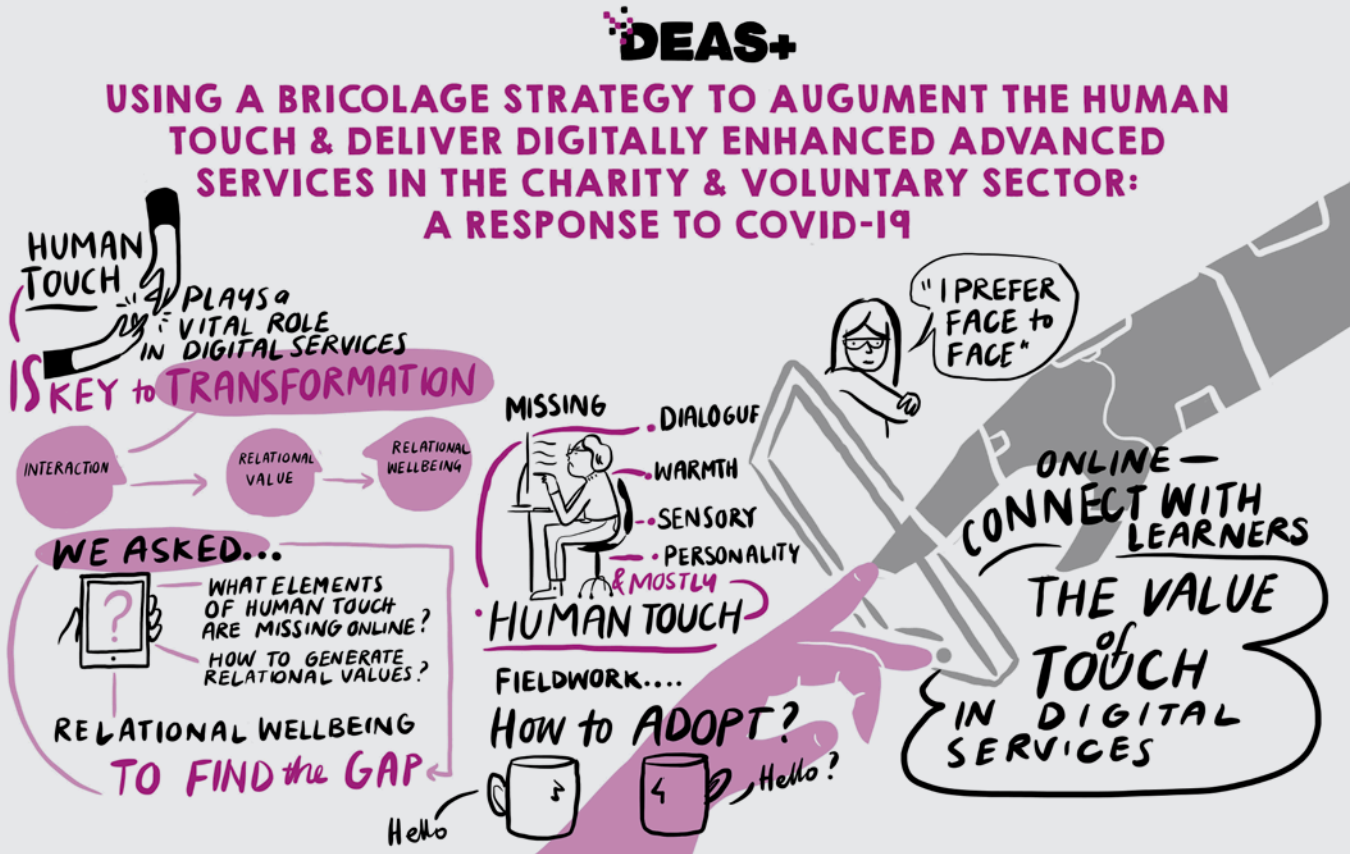
A lack of digital skills should not be a barrier to adoption. Identification of a skills pipeline and any required training programmes must address current and future needs. It is important to understand the digital maturity of the organisation and what digital skills they have access to. Charities are not cash rich so money is spent very carefully. How do they get access to the right infrastructure support and training? There is likely to be a need for new partnerships and networks (e.g., to allow access to additional people skills). The use of new pricing, communication and auditing skills will be required to educate all stakeholders (e.g., beneficiaries, funders, volunteers, donors) on the benefits of servitization. The work of charities is typically reliant on the quality of human relationships with clients who are in vulnerable conditions. Technologies can be seen as a barrier in these situations and research is needed to identify how technology can be an enabler.

KEY QUESTION

Can we enable organisations within the charity/voluntary sector to identify and assess their own requirements and necessary partners and, develop confidence that they are ready to start and optimise DEAS implementation, with the necessary skill sets both now and in the future?

CHALLENGES

The challenge is to develop a more reliable understanding of the most important factors affecting uptake and effective adoption of DEAS within the sector and to develop practical tools that charities and voluntary organisations can apply to self-assess their current circumstances and identify what they need to put in place to optimise DEAS implementation. How can different skills be identified in a dynamic environment? How can charities/voluntary organisations ensure that they have access to all the skills and behaviours to deliver advanced services?



POSSIBLE RESEARCH PROJECTS

- » How to develop a shared vision for DEAS between funders and charities?
- » What are the key organisational barriers to/enablers for DEAS implementation?
- » How can organisational conditions (environment, culture, etc) be developed for DEAS implementation and integration?
- » How can personnel skills be developed using innovative digital technologies to optimise DEAS implementation and integration?
- » What does the future skills pipeline look like in relation to DEAS within the charity/voluntary services sector?
- » How can innovative digital technologies facilitate collaborative partnerships?
- » What are the implications of cross-sector partnerships involved in the delivery of DEAS for regulation, governance and shareholders?
- » How can trust and confidence in innovative digital technologies be developed?
- » How does a charity/voluntary organisation identify/ assess the appropriate technology for DEAS?
- » How can a charity/voluntary organisation be aware of/learn what is available to implement DEAS given less resources?
- » What are the limitations/challenges that need to be considered in the adaptation of Deas principles to the charity sector?

5.7

How can policy (both local and national) help facilitate the adoption and delivery of DEAS within the charity/voluntary sector?

INTRODUCTION

Charities are regulated by the Charity Commission and fundraising regulators. A key piece of legislation is the Charities (Protection and Social Investment) Act 2016, which gave the Commission new powers and led to significant change in how charities are regulated. Part of the role of the Charity Commission is to provide 'charities the understanding and tools they need to succeed'¹³. DEAS represents a very different operating model for charities and it is important that regulation is not a barrier to adoption. All regulatory parties will need to be educated on the benefits of innovative digital technologies in delivering DEAS to ensure regulation evolves. DEAS require digital technologies, data, associated infrastructure, and data analytics. Each of these components need to be considered in a regulatory landscape. Regulators need to talk to each other and to become educators as well.



¹³ <https://www.gov.uk/government/organisations/charity-commission/about>

KEY QUESTIONS

How can policy and regulation help us ensure that innovative digital technologies can be used to finance, facilitate or support DEAS within the charity/voluntary sector? How can innovative digital technologies provide transparency for regulators?

CHALLENGES

How can regulators and the Charity Commission use innovative digital technologies to understand how advanced service models will impact regulation and oversight? How does policy/regulation impact the financing and delivery of DEAS within the charity/voluntary sector? How do we overcome the ethical and moral challenges of the use of personal data on vulnerable individuals? How can the body of regulators understand emerging risks and determine how they should be regulated to protect all stakeholders? How can the changing balance and nature of risks arising from DEAS be properly understood and regulated?

POSSIBLE RESEARCH PROJECTS

- » What new regulatory models, policies and practices are needed to finance, design and operate DEAS within the charity/voluntary sector?
- » What governance and ethical frameworks are required to allow the adoption of DEAS through innovative digital technologies within the charity/voluntary sector?
- » What regulatory models are necessary to allow the sharing of data and infrastructure to facilitate the delivery of DEAS?
- » How can innovative digital technologies be used to identify the new skills and behaviours needed from regulation and governance in order to finance and/or facilitate DEAS?
- » How does the regulatory environment need to adapt to changing business models so that all stakeholders are properly protected when DEAS are adopted?
- » How can innovative digital technologies be used to provide transparency for the regulators?

5.8

How can DEAS allow charities to compete for funding in a sustainable manner?

INTRODUCTION

The charity funding model is very different to profit-led organisations and those that are typically considered as adopting a servitization business model. Risk is articulated in different ways compared to other sectors. Risk could relate to the survivability of the charity in terms of its financial health and financial sustainability. At the heart of any charity the biggest objective is for it to have no need to exist, but while it does it needs to sustain itself to meet the needs of its beneficiaries.

Funding can come from government organisations, donations, grants or memberships. Charity will always prioritise use of resources that is socially driven instead of being digitally driven. What implications would this have on the adoption of DEAS? There are normally strict parameters set by funders. Digital technologies could allow more transparency with regards to use of funds. Some community businesses are trying to identify how they could monetise the offering. However, what implications would this have with regards to funding regulation?

Unlike other sectors, there is a lot of free resource transfer and philanthropy within the charity/voluntary sector. Many services are provided at no cost to the beneficiary and are funded by funders for no return. If DEAS can help with transparency and more efficient use of limited resources, could DEAS increase levels of philanthropy?



KEY QUESTIONS

How can all relevant risks be identified and priced to allow the charities/voluntary organisations adopting DEAS compete for funding? How can any organisation adopting DEAS determine a suitable pricing and risk structure to create more value for their stakeholders?

CHALLENGES

How can risks be identified, costed, managed and reduced?

POSSIBLE RESEARCH PROJECTS

- » How can innovative digital technologies be used to identify risk within the charity/voluntary sector?
- » How can innovative digital technologies be used to price operational and financial risk and determine suitable prices for memberships?
- » How can innovative digital technologies be used to reduce emerging risks and new systemic risks?
- » How can innovative digital technologies be used to provide transparency for the regulator and/or the funders?

5.9

How might the adoption of the DEAS in the charity/voluntary sector increase productivity and sustainable value that the UK economy is able to deliver to society?

INTRODUCTION

COVID has seen an increase in those needing the services of charities and voluntary organisations. Going online has allowed some charities to have a wider reach. However, it has also led many charities to find it difficult to reach those in need, particularly because of digital exclusion. Although the primary aim of the charity/voluntary sector is not related to productivity, their work will support this (e.g., giving refugees skills to get into the work force, improve wellbeing). What can be done to help charities transform their business models to adopt DEAS given a lack of resources (e.g., finances, digital technologies, required skills)?

KEY QUESTION

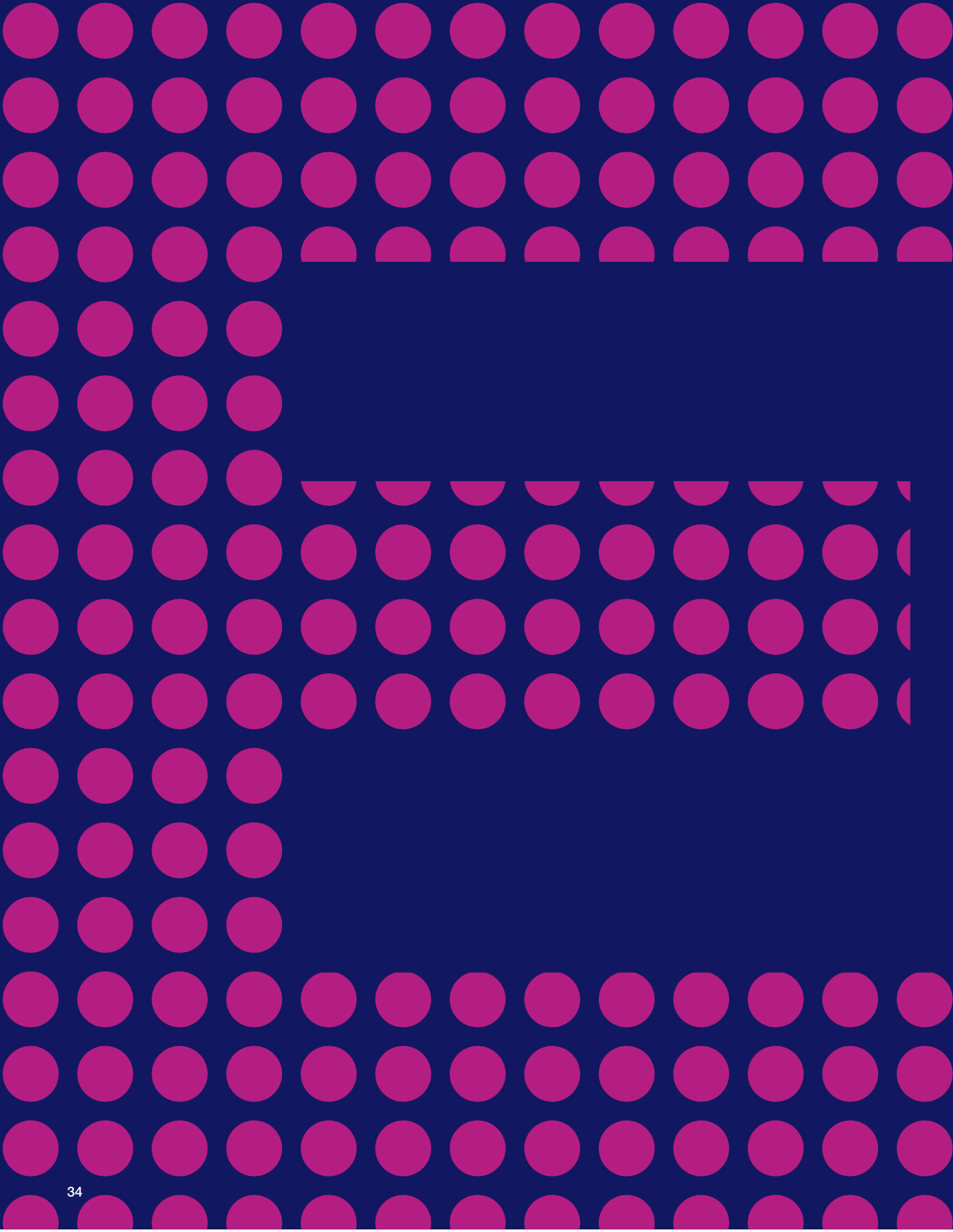
How can DEAS business models help charities make more efficient use of resources with a restricted budget to deliver their services and indirectly enhance productivity, resilience, personal wellbeing and sustainable value of the UK economy?

CHALLENGES

The challenge is to provide charities and voluntary organisations with the tools that they need to explore how the switch to DEAS can provide increased and sustained value to them and their stakeholders. This needs to be done quickly and effectively as they have access to limited resources and finances, neither of which can be diverted from their current core business. The organisations need to establish: what advanced services they can offer; how their offerings can be adapted to enable DEAS; how DEAS will allow them to compete for funding and, how their organisation needs to change? What are the implications of the disruption and learning caused by the pandemic on the adoption, delivery and financing of DEAS?

POSSIBLE RESEARCH PROJECTS

- » What impact would DEAS principles and practices have on the type and pace of the recovery of the UK economy?
- » How can charities and voluntary organisations based on DEAS principles enhance productivity and sustainable value to the UK economy?
- » How can DEAS help build a sustainable economy?
- » What are the changing attitudes to the use of innovative digital technologies by charities and voluntary sectors due to the pandemic and how will these changes impact the recovery given the changing nature of risks when organisations adopt DEAS?
- » How would adopting DEAS more widely impact on the wider economy, resilience, wellbeing and sustainability?
- » Develop an online tool to allow an organisation to build a business case for a switch to DEAS.
- » What can be done to help smaller charities take the DEAS step? Can larger organisations help?
- » How might the adoption of DEAS by organisations within the charity/voluntary sector improve their resilience?



6

THE IMPACT OF COVID IN THE CHARITY/ VOLUNTARY SECTOR

The DEAS Charity/Voluntary Call was a direct response to the COVID-19 pandemic. In the development of this report, the following impacts of COVID in the charity/voluntary sector were highlighted: to make a change to use of digital.

- » Communication within and between the communities that charities serve is important. COVID has changed how the communication takes places with increased use of digital tools and social media.
- » COVID has brought some charities together to form new partnerships.
- » Smaller charities have been able to be more flexible and agile during COVID.
- » Some charities thrived during COVID where others did not. Work is needed to understand what role business model flexibility played in this.
- » Some projects within the sector were only funded during COVID and it is likely that these will have to stop post-pandemic due to a lack of funding.
- » COVID has given motivation to make a change to use of digital.

7

CONCLUDING REMARKS AND NEXT STEPS

This report has presented an overview of Digitally Enhanced Advanced Services, their potential benefit to the UK economy, and what challenges must be addressed if they are to be adopted by organisations and government agencies in the charity/voluntary sector. In addition, this report has described the process by which the essential research themes have been identified by those working in the charity/voluntary sector including researchers in the fields of computer science, business and social sciences. We would like to thank all of the practitioners and researchers who have helped us develop this document.

8

FURTHER INFORMATION

For more information about the DEAS NetworkPlus, and to view the other three research agendas that have been produced by the Network, visit www.deas.ac.uk.

To become a member of our Digitally Enhanced Advanced Services NetworkPlus community sign up to our mailing list www.jiscmail.ac.uk/DEAS.

Appendix 1

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¹⁴ It is with great sadness that the DEAS NetworkPlus team lost our much respected friend and colleague, Professor Robert John, on 17 February 2020 following a short illness.

Appendix 3

THE DEAS FUNDED PROJECTS

Six proposals were submitted to the DEAS NetworkPlus COVID-19 Charity/Voluntary sector call, with the following four projects granted funding:

DEAS Principles in the Charity Sector – A Case Study of the Refugee Council’s Digital Social Care Provision for Children in Vulnerable Contexts	PI: Giorgia Dona (University of East London) Col: Roxanne Nanton (Refugee Council)
Helping ensure survival: Digitally Enhanced Advanced Services in Community Business	PI: Peter Bradley (University of West England) Col: Mandy Gardner (University of West England)
Using a bricolage strategy to enhance the human touch in digitally enhanced provision for refugee service users: a response to COVID-19	PI: Judith Zolkiewski (University of Manchester) Cols: Ilma Chowdhury, Marzena Nieroda, Amir Raki (University of Manchester)
Improve accessibility and flexibility of counselling through digitally enhanced counselling service delivery models during and beyond COVID-19	PI: Zsofia Toth (University of Nottingham)





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