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Creating a value driven entrepreneurship opportunity using design thinking and 'servitisation'

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Abstract
This paper discusses a series of creative workshops designed to provide insight and solutions for one of our major social challenges of the 21st century – the complexities of an ageing society in the workplace. We present a case study based on a major charity operating in Scotland, UK, exploring opportunities to create a value driven entrepreneurship opportunity for older people using design thinking and a 'servitisation' approach. We developed and documented a series of co- creative online workshops using design thinking methods to illicit issues older entrepreneurs were having in their professional lives and to subsequently explore concepts and develop both practical and strategic solutions. We included participants from a variety of companies, stakeholders, individuals and professionals in third sector roles as well as entrepreneur experts. This creative facilitation project uses design thinking to deliver collaborative online creative workshops which explored knotty problems around entrepreneurship for older people found that establishing personal and professional connections and networks was the key issue. We discuss how this project had to be adapted due to the COVID-19 pandemic and evaluate to what extent our adapted approach offers additional value to organisations and individuals by using a 'servitisation' approach combined with design thinking and online facilitation to co-create solutions for entrepreneurs of all ages.

This project was undertaken as a single case study. A second project has now been completed using the concepts and tools with a range of stakeholders across a variety of service sectors to uncover the issues around the future of work skills deficit post COVID-19. This paper details the co creation process involved in developing online workshops and gives a detailed description of the tools used and the co creation model that has been developed. We explain the value creation process obtained from using a user-oriented service approach rather than a product centric approach.

Keywords
Creative facilitation, design thinking, value creation, 'servitisation'

Paper type
Single case study

1. Introduction:

This paper discusses a series of creative workshops designed to provide insight and solutions for one of our major social challenges of the 21st century – the complexities of an ageing society in the workplace. Public and third sector organisations are faced with multiple challenges linked to ageing at a population level, trying to manage and resolve complex problems, meeting individual needs in the context of diminishing public sector resources. We need to develop an enriched suite of solutions to enable people to live fulfilling, successful professional lives for longer. Additionally, within an increasingly uncertain third sector we need to develop a rich and diverse skill set amongst employees, entrepreneurs and importantly stakeholders, to enable them to engage with the challenges, and to create positive innovative and entrepreneurial opportunities, and outcomes for older people. The challenges in this area are well documented, but the solutions less so.

By detailing the creative facilitation project this paper sets out to offer new thinking on how organisations can adopt a different and more creative approach to explore difficult problems. We seek to demonstrate that through in-depth training and using creative and innovative thinking, sustainable development is possible.

This project was generated and managed by team within a UK University working with a Scottish registered charity. The charity, are already involved in several activities related to healthy ageing, including a current project related to developing a 21st Century Village for older people in their region. This also included providing space for companies to set up within an estate managed by the charity.

This project's goal was to contribute to social innovation and public sector transformation by using value creation via design thinking and a 'servitisation' approach to meeting entrepreneurs needs. New solutions were sought by ''co-creating'' and applying the process of design thinking which is a user-centred method of innovation combining the experience of the charity's staff with the expertise of creative facilitators. For these workshops the facilitators developed specific online tools, from what was initially designed as face-to-face activities, to help uncover insights into the needs faced by the many stakeholders involved in the charity and their aim to develop solutions for older entrepreneurs.

Older people bring experience, wisdom, culture and a unique lived in perspective to society. However, ageing also often brings physical and social challenges. To help communities thrive, built environment (cities and developments) charities and care professionals will be called on more than ever to support older peoples' well-being and productivity. Working with older people as community assets themselves is part of the solution to this complex problem.

Although some public perceptions can be that ageing is a demographic time bomb waiting to explode, and a crisis; we need to see the opportunities and need to develop fresh perspectives into viewing ageing positively. We need to stop thinking about older people as a homogenous market and start thinking about the different tribes of older people in the same way that we currently segment the youth market. This means taking creative approaches to provide solutions to issues facing this population. This project aimed to make the idea of examining issues, ideas generation and creation, and communicating with older people exciting and enticing, eliciting their ideas and views to use in concept creation.

The remainder of the paper is organised as follows. First, we briefly review relevant literature on design thinking, value, creativity and the role of service design in 'servitisation'. Then, we describe our creative facilitation design, its rationale and its execution. A presentation of our findings on the role of creative facilitation in value creation for 'servitisation' follows, with a subsequent discussion of the findings of the project and to position our project within existing literature. Finally, we consider the practical implications, limitations and directions for further research.

2. Part 1: Literature

2.1 Design Thinking

Design thinking, as IDEO's Tim Brown (2008) explains, 'is a human-centred approach to innovation. It draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.'

The origins of design thinking as currently understood can be traced back to the 1980s. Prior to that, design and creative thinking were essentially similar to the way in which problems were addressed in mathematics or science, as described by philosophers such as Karl Popper (1959) and Thomas Kuhn (1962). Graham Wallas (1926) set out to achieve a 'scientific explanation of thinking' and outlined a four-stage creative process consisting of preparation, incubation, illumination and verification. Cognitive psychologist Herbert A. Simon (1969) presented design as a science or a way of thinking: one aspect of the information-processing capabilities of the human mind.

In the 1980s, writers such as Nigel Cross (1982) and Bryan Lawson (1980) began focusing on how a designer would use *different* problem-solving techniques from someone who did not have a design background. They formulated many concepts which have become key to design thinking as we now know it. The key concept of the 'wicked problem', originally coined by Horst Rittel in 1972, was taken up by Richard Buchannan (1992). Rather than being solvable by a logical approach, as earlier writers had assumed, Buchanan argued that most of the problems addressed by designers were 'wicked' in the sense described by Rittel: a 'class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing.'

Terms such as 'satisficing' and 'solution centred' thinking soon began to be used to characterise what was becoming known as 'designerly ways of knowing' (Cross 2011; 2018). The focus of design had changed from being a mindset of the designer (an expert who developed solutions) to a creative: someone who tried to provide design solutions to problems being faced by consumers and users.

The design thinking method was chosen for this project because it is ideally suited for organisations in the public domain; those that provide important services and work in different, often complex, contexts. Design thinking looks at the complete experience of how a service, product or process is delivered. It is a holistic approach that considers all the various factors and touch points that influence the context.

There are a few models of design thinking, but we used the five-stage design thinking model (below) which was developed by the Hasso Plattner Institute of Design at Stanford (2009).

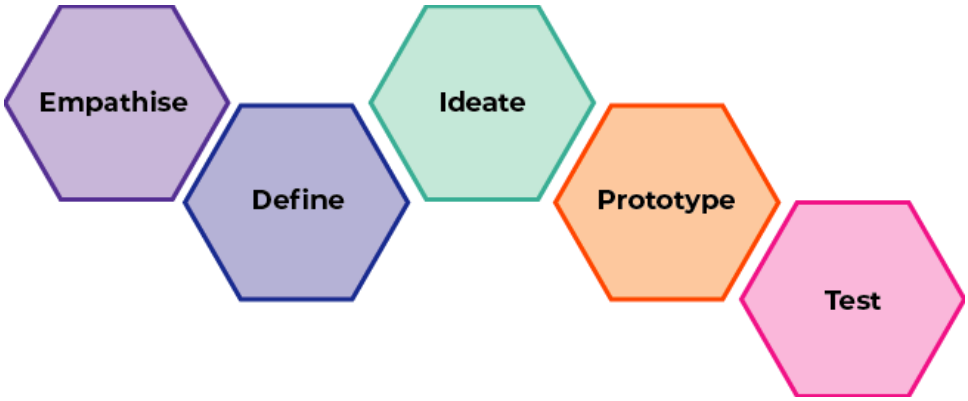

Figure 1: The Five-stage Plattner-Stanford design thinking model

This five-stage design thinking model was developed by the Hasso Plattner Institute of Design at Stanford (2009). Another model was developed at the same time by Brown and Wyatt (2010) who proposed a systems approach with three overlapping spaces: inspiration, ideation and implementation. The Plattner Stanford model separates the prototyping stage from the ideate stage; this has the advantage of giving a prompt to iterate between these two phases.

Each of the Plattner-Stanford model steps serves a different purpose.

The **empathise** step asks design thinkers to observe, engage and immerse themselves in the context of the user. They can also observe users and user behaviour in the context of their life and social situation, to understand what users can do, what they want to do, why they want to do that and the chain effects all this might bring about. Engaging with the users ensures the design thinker focuses on interacting with people; they take the position of a 'user' rather than looking at the problem or issue from the perspective of a designer, manager or expert.

The next step, **define**, is a mode of focus, which has the same function as the defining section in the Design Councils' (2005) double diamond model. This stage captures the issue or problem for which you are going to seek a solution and focuses on opportunities for a potentially creating a solution.

The next stage is the **ideate** stage. This is the same as the develop part of the double diamond model. Designers need to brainstorm as many solutions as possible and increase the innovation potential of the potential solutions by generating a variety and volume of ideas.

Then we move to **prototype**, which is again quite like the second define part in the double diamond model. Prototyping in design thinking is a way of moving ideas and explorations into a model of some sort that can be assessed. Users can then experience and interact with prototypes, and the design thinkers can get useful interaction information from the process and therefore empathise more with the users and develop better solutions.

The last step is **test**. Design thinkers need to review designs through testing the prototype. Sometimes the results of these tests may mean that the design thinker will need to go back into the different stages of the process to refine the model or even re- question the assumptions they have made about the users' needs.

The Plattner Stanford model varies from other models because it asks design thinkers to develop a prototype to test before really defining the final solution and focuses more on visual thinking. Intrinsic to design thinking is the ability to create value for users.

2.2 Value proposition

Value creation is the process of turning labour, physical and human resources into something that meets the needs of others. Value is an experiential and contextual concept (Vargo Akaka, and Vaughan,2017). Skålén et al. (p.138. 2015) quoted McKinsey (2000, p. 53) who defined the value proposition, referred to Lanning and Michaels (1988),and quoted; "A clear, simple statement of the benefits, both tangible and intangible, that the company will provide, along with the approximate price it will charge each customer" A value proposition that can satisfy consumer or users' needs and alleviate their 'pains' is at the heart of any business model (Osterwalder, Pigneur, Bernarda, & Smith, 2015). Lanning and Michaels viewed the value proposition as comprising three steps of choosing, providing, and communicating the value. Lusch and Vargo (2014) see a value proposition as a hypothesis which can be proved or disproved and is based on the tangible and intangible benefits that they can provide which can be co-created and aligned with a stakeholder's needs. The value proposition is put into effect over a period using a combination of resources and capabilities of stakeholders with their interlinked business models (Gronroos, 2011).

According to Skålen et al. (2015) a value proposition is a market offering the value of which is passed on to the consumer, but which is constructed without any direct customer involvement. However, they can sometimes be co-created within a network of providers, with Bititci et al. (2004) proposing that value propositions are created within a meta level management process to achieve both operational and strategic options. If an organisation has a 'servitised' business model they can use it to co-create value as they reach out to include their stakeholders' capabilities to create a solution for the user or consumer. Value propositions are the starting point of service innovation because they include within their lens capability use, resource integration, and value creation (Skål´en et al.2015). They do however require a change in behaviours and mindsets; as in the 'servitisation' model organisations need to co- create with customers and other stakeholders (Sj¨odin et al., 2020). These approaches and tools should be applied to mapping, visualization, and materialization of service value with customers and internally within the organization (Kindstrom, 2010). This contrasts with Skålen et al. (2015).

2.3 Creativity

As Collins (2018) explained in '*Creative Research*' most of the research into creativity in the past has focussed on the individual and on how people can become more creative. More recent studies propose that multiple components must converge for creativity to occur (Amabile, 1983; Csikszentmihalyi, 1988). Amabile (1983) describes creativity as the confluence of intrinsic motivation, domain-relevant knowledge and abilities, and creativity-relevant skills. The creativity-relevant skills include a cognitive style that involves coping with complexities and shifting your mental mindset during problem solving; knowledge of heuristics for generating novel ideas; and a work style characterized by concentrated effort, an ability to set aside problems, as well as high energy.

Csikszentmihalyi (1988, 1996) takes a systems approach, choosing to highlight the interaction of an individual, their domain and field. An individual draws upon information in a domain and transforms or extends it via cognitive processes, personality traits and motivation. The field, consists of people who control or influence a domain, evaluates and selects new ideas. The domain, a culturally defined symbol system, preserves and transmits creative products to other individuals and future generations.

Csikszentmihalyi (1996) further argues that if creativity is to have a useful meaning in organisations, it must refer to a process that results in an idea or a product that is recognized and adopted by others. The sole act of creation is not enough to be useful. Creativity is not the product of single individuals, but of social systems making judgements about the individuals' offerings. The concept of creativity in organisations must be grounded in what that social system is willing to accept. It is therefore necessary for a creative idea or product to be accepted (Simonton, 1997).

If the purpose of creativity is to generate ideas, then we must not only look at the 'stock' of ideas but also where those ideas go and how and whether they are used. For ideas to be used, they must be externalized and articulated to others to achieve acceptance, and this is where collaboration comes into play.

The application of creative thinking to solve problems has been a key competitive advantage (Collins, 2018a; Puccio, 2017) to organisations embarking on sustainable projects. One of the focuses of creativity research has been on knowledge combination and recombination, and on the ability to "make do" with scarce resources (Baker & Nelson, 2005; Simonton, 2003). There has been research exploring idea generation, but we still know relatively little applicability about idea selection, a phase whose accuracy is likely to be particularly relevant for the creative process to result in sustainable innovation solutions.

2.4 Service design and 'Servitisation'.

Service design is the activity of planning and organising people, infrastructure, communication and material components of a service in order to improve both its quality and the interaction between the service provider and its users Service design is a holistic approach that considers all the various factors and touch points that influence the context in which a service is rendered. The service design process is ideally suited for organisations in the public domain; those that provide important services and products, working in different, often complex, contexts. To determine new solutions, service users and other stakeholders are involved in the innovation process from the onset. This has come to the fore because user expectations have moved from being product centric towards solutions that consider contextual problems and create value for users by giving an improved experience (Story, Raddats, Burton, Zolkiewski, & Baines, 2017). This applies not only to consumers and users but to business users who also want to also have the value derived from the use of a product or physical artefact therefore viewing this transaction as a service (Cusumano, Kahl, & Suarz,2015).

This leads us to 'servitisation' which is a user centric approach based on developing mutually beneficial relationships based on the needs and wants of the consumer rather than the more traditional business model based on revenue using a product- centric approach. This approach sees the product or physical artifact as a conduit to move to a consumer centred service

approach. The term ‘servitisation’ was first proposed by Vandermerwe and Rada (1988) and refers to the move from a product centric approach to offering ‘‘bundles” of both goods and services thereby generating value. Roy and Cheruvu (2009) consider ‘servitisation’ to be an innovation of organisational capabilities and resources garnered to create value moving the concept even further from a product only offering. This is a type of value co creation needs to involve the consumer or user in the process so that a service is created that meets their needs. Goedkoop et al. (1999) originally defined ‘servitisation’ as a system that comprises products, services, participant networks, and support infrastructure further moving the concept into the macro environment. The purpose of this system is to maintain competitiveness, meet consumer demand, and lower environmental impact. Baines et al. (2009) then summarised this as integrated products and services that provide value during usage implying that by emphasising product usage instead of purchases it will reduce material consumption. In summary, ‘servitisation’ emphasises meeting the personalised needs of customers by integrating products and services, which results in value creation when these needs are met. ‘Servitisation’ as a concept is increasing in popularity and engenders a transformation embedded in the organisation value driven strategy (Teece,2010; Cortimiglia, Ghezzi, & Frank,2016).

Within the creative facilitation project, we were focussing on building facilities management as well as design strategy. In this type of project, the charity’s’ focus shifts from the usual facility delivery to the provision of long-term services related to that facility concurring with Iriarte et al. (2023); and Solem et al. (2021), who considered the impact service design has on ‘servitisation’ in manufacturing also focussing on a single case. In their case studies, several service design microlevel practices emerge in relation to creating a value proposition. They have detailed tools for co-creation processes including creative user data collection (design research), co-creation workshops, use of visualisation tools, and design prototyping. These processes provide the underpinning for the development of a value proposition which in turn can be used in ‘servitisation’. This can engender a shift in a mindset towards a user – centric and service-oriented culture (Costa et al., 2018). Through these tools, we can gain a better understanding of users’ needs to ideate, prototype, and communicate services value propositions (Solem et al., 2021).

As this increases complexity we need to consider the context and ecosystem that the product or artifact is located in, and this is where design thinking can help. This is because it is a human centred approach based on exploring the issues and problems users or consumer have. Design thinking does this by using a collection of tools and approaches which can help to structure and tackle complexity using collaboration at its core. The design thinking process starts from observing the prevailing situation and identifying problems. This can result in seeing issues from a new perspective and because of its collaborative co creative approach it engenders a spirit of empowerment and consequently a willingness to change.

3. Part 2: Methodology

To explore and understand opportunities to create a value driven entrepreneurship opportunity for older people using design thinking and a ‘servitisation’ approach we developed a series of co- creative online workshops using design thinking methods to illicit

issues older entrepreneurs were having in their professional lives and to subsequently explore concepts and develop both practical and strategic solutions. We included participants from a variety of companies, stakeholders, individuals and professionals in third sector roles as well as entrepreneur experts. The table below details the stages in the workshops and the tools and concepts used.

AIM	**DESIGN THINKING STAGES**	**WORKSHOP and TOOLS**
Initial brief meetings		Opposite thinking Analogy thinking
Introducing team to design thinking Outline of process and creating empathy		**Pre workshop meeting** Explanation and intro tasks
Design research undertake by participants prior to workshops	Empathise	Gathering user insights Preparing empathy map
Identifying user insights through empathising	Empathise	**Workshop 1** Hopes and Fears 5 W's and H User diaries
Summary of workshop outcomes distributed and agreed with participants		Final empathy map
Identifying stakeholders and user types	Define	**Workshop 2** Creating personas Problem and opportunity statement HMW umbrella question
Ideate	Ideate	**Workshop 3** Scenarios Solution Storyboard I like, I wish, what if Worst possible idea
Prototyping	Prototype undertaken by design student	**Development of a range of prototype for evaluation in workshops**
Reviewing concepts	Prototype	**Workshop 4** Discussing prototypes Drivers and Hurdles Customer journey map Market opportunity sizing Business model creation
		Workshop 5 Stakeholder Mapping Design strategy sprint Value proposition
MVP testing	Test	**Workshop 6** Test Feedback loops Feedback capture
Project evaluation	Audio and video data collection	

Table 1: Process and content of the design thinking workshops.

The creative facilitation team consisted of two design thinking facilitators, a knowledge exchange manager and a project manager working with a student team of seven design innovation students. The facilitation team met with our charity partner several times to develop a working brief for the workshops that outlined the issues facing the charity going forward. This was a consultative process and involved meeting face to face to discuss the issues the charity was facing within the context of entrepreneurship for older people. We used several techniques such as opposite thinking and analogy thinking to assist in our development of the brief. Opposite thinking helps participants and stakeholders to challenge their assumptions about the problem and possible solutions and come up with non-obvious ideas. Opposite thinking is more than just an ideation tool, it's a mindset that can be applied throughout the creative journey. Analogy thinking tool helps you to identify and apply the best features from other solutions.

Ultimately, we decided to run separate workshops detailed in Table 1 to illicit issues around the problem areas and then following on from this working collaboratively towards generating potential solutions using the Five-stage Plattner-Stanford design thinking model. Working with the charity we sent out invitations to a variety of companies, stakeholders, individuals and professionals in caring and health roles, business development consultants as well as internal staff. In the middle of the project, in March 2020, the Covid-19 pandemic hit. During the review and planning process that followed, the team recognised that the need for creative problem-solving as organisations and employers wrestled with the 'new normal' of remote working, furlough and all the business impacts of the pandemic, was even greater than ever. So, the challenge was how to deliver all the benefits of design thinking workshops that would engage its audience online as effectively as in face to face workshops. Whilst it meant the team had to adapt the project to online delivery, in many ways, it intensified even further the need for a rich and diverse new skill set within organisations to enable them to be prepared to engage with the challenges ahead. The team researched and skilled up in the use of a visual collaboration tool, Miro. An innovative workshop space and design thinking process was designed and built on Miro, and workshop participants were familiarised with the platform in advance of the sessions.

The initial workshops took place with participants were a mix of employees from the charity along with some of their partners and network contacts. The theme of the workshops was around how to enable innovation and connections across the extended charity community, its businesses and networks to meet the big challenges of our time. The workshops led participants through the design thinking process by working collaboratively on a series of innovative exercises. We then worked together on from Workshop 2 onwards to exploring how to tackle practical ideas around age-friendly living environments and working environments - themes which are a core interest of the charity's work. The charity was in the process of renovating a space for collaboration and innovation. Our workshop explored how it could become a truly intergenerational co-working space, using a user-centric approach to provide workspace solutions for the charity's changing environment.

2.1 Creating online workshops within a turbulent context.

We decided, with our charity partner to redevelop our creative workshops for an online delivery. We were very sensitive to the issues that stakeholders and participants, the students and our own team were facing. Most of us were finding it difficult to maintain a healthy lifestyle during COVID-19. The uncertainty, and worries related to finances, childcare, elderly parents, and job security had disrupted all our routines, our lifestyles and our health. The uncertainty about the future, the ceaseless news coverage and constant social media had at times heightened anxiety. We wanted to continue with our workshops and provide a vehicle for a potential solution to issues to alleviate stakeholders and participants worries and concerns. Management has a long history of fostering decision-making attitudes that are most effective in a stable environment and that develop advanced skills in analysing and choosing between decision alternatives. Yet as the increasingly complex and turbulent business environment challenges management; organisations have on occasion been criticised for not sufficiently developing their employees' skills to adapt to the turbulent contexts. We decided that we would try to develop our workshops so they would alleviate concerns and not exacerbate them. Drawing on different design-thinking approaches in organizations we identified five principles—user focus, problem framing, experimentation, visualization, and diversity—as common denominators. If we are to assume a design attitude in managing within a turbulent context, we knew we needed to understanding problems as undetermined or wicked and to anticipate more than one solution. Within an online and social distancing environment we focused on putting the user to the forefront. We emphasised the practices of understanding and empathising with the participants explicit and latent needs and tried to find a way of keeping in touch with the user from the beginning by understanding the problems and also through a first-stage solution of testing first ideas and incorporating feedback. We had to embed an inquiring, non-judgmental mind-set into the workshops. In order to undertake problem framing participants and stakeholders need to be comfortable with complexity, ambiguity, and unexpected events. Experimentation, which is the iterative aspect of design thinking, encourages working in quick feedback loops on rapidly produced prototypes and we had to consider how to do this within a virtual environment. To enable participants to go through a visualisation process will foster a deeper understanding of the situation by externalizing knowledge and undergoing a concrete experience. We also wanted to ensure the teams are diverse as this will foster openness to various perspectives and radical collaboration.

In step one we scoped out the challenge and set objectives. The main purpose of a remote design thinking workshop is to get a diverse group of people together to tackle a single problem. The first step in the planning process was to determine the challenge everyone will be working on. A clear workshop objective is key to ensuring that everyone knows why they are there and making sure that everyone is ready, and motivated, to contribute. For the workshop objectives and the design challenge we used the question: *How might we use design thinking to improve the user experience within the charity in turbulent times?*

We had an onboarding call with participants and assigned pre-work in advance of the online workshop. In a face-to-face workshop, we would go through the "building empathy" phase

together; however, for an online workshop, we needed to set this as an assignment for participants to complete two weeks in advance. For the pre-workshop assignment, we wanted the participants to gather as many insights as possible about the charity. They were asked to speak to target users to find out what challenges they are currently facing when working with or at the charity, as well as their expectations and desires when it comes to their experience with the charity. At this stage, the best way to build empathy with the users was to ask them to walk through a particular experience that is relevant to them and to us as workshop facilitators. This way participants could gather feedback in real-time and experience the users' frustrations first-hand. For the second part of the pre-work, they were asked to create a simple empathy map using the sample in Figure 2. They were asked to put all the insights they have gathered from the interviews with their users into the relevant quadrants ready to discuss at the workshop. The map is essentially categories of Says, Does, Thinks, and Feels. They were also asked to read some documentation about Design thinking in the third sector. The resulting collaborative empathy map is illustrated in Figure 3.

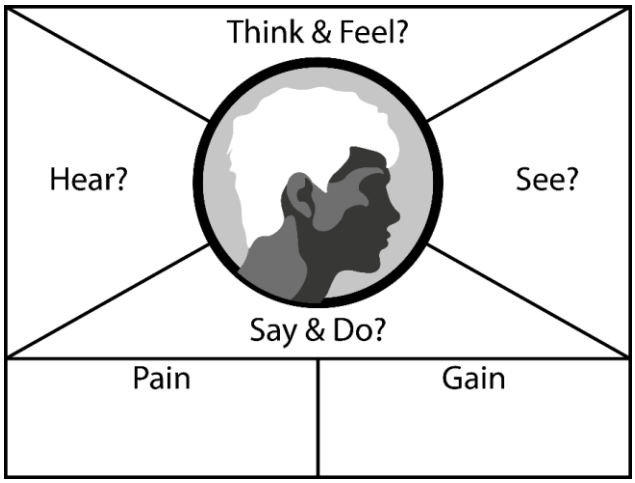

Figure 2: Sample Empathy map.

Figure 3: Completed empathy map.

We were now entering into the first "phase" of design thinking -empathy, although this, of course, is not a linear process. In terms of building empathy, much of the work was already done as part of the pre-workshop assignment. At this stage of the workshop itself, we brought everybody's insights together on the virtual whiteboard and started to examine and identify common themes. We started this section by asking each participant to briefly present their findings and share their empathy maps. Then, using Miro we created one final empathy map which incorporated the main themes and insights. By the end of this section, we had produced a collective understanding of the charity users and where their main challenges lie. We then progressed into a discussion session about what has been learned so far and to ask and answer questions.

Figure 4: Example of one persona.

From the interviews undertaken by the participants with users and stakeholders we drew insights from the interviews and developed three personas illustrating the type of user. Figure 4 illustrates one of these personas. Using the personas as a referenced we then moved on to defining a problem statement and this moved us into the define stage. We narrowed down the broader challenge (How might we use design thinking to improve the user experience for the charity's stakeholders in turbulent times) to a more specific focus. For this part of the remote design thinking workshop, we created a point of view (POV) statement and developed a more focused "how might we" (HMW) question. We synthesized all the data collected in the "empathy" phase and worked together as a group to come up with a statement that clearly defines the user's point of view. The POV statement followed the simple formula: "User" (Entrepreneurs of all ages) needs a way to "do something" (set up and continue business activity) because of "surprising insight" (intergenerational lack of communication during a crisis).

The POV statement was human-centred, broad enough to leave room for creative solutions, but by now also narrow enough to ensure that it has a specific focus and is geared towards action. From this the participants moved into developing HMW questions. This was framed to invite action. (How), focuses on possibilities and potential (might), and encourages teamwork (we). The resulting HMW question is illustrated in Figure 5.

Figure 5: How might we question.

Workshop 3 was dedicated to ideation, by coming up with ideas and potential solutions to address the user problem. This is where our participants had a chance to get creative, so this is often one of the most enjoyable aspects of a design thinking workshop. However, within an online environment where participants are working from home this meant some distractions occurred and of course we were also reliant on the technology functioning.

We used several activities at this stage. Using the "worst possible idea" technique, we asked the group to spend around ten minutes coming up with "anti-solutions" to the problem they are trying to solve. Then, having explored the opposite of what would be helpful to the user, it was easier to find potential solutions. The group sketched words and visuals on the virtual whiteboard at this stage. We then shared ideas and got feedback on the solutions. Our last activity was about refining the solution. Incorporating what they've learned about the user and the feedback they received on their initial ideas, we pulled everything into one single ideation board illustrated in figure 6.

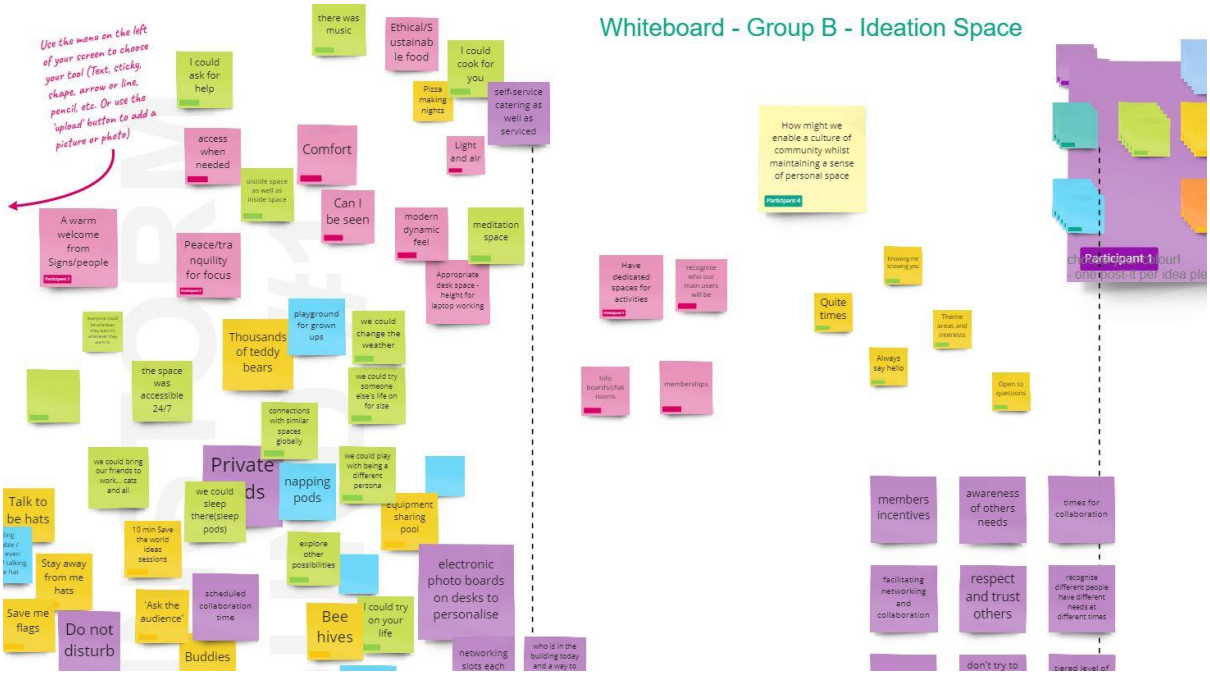

Figure 6: Ideation board

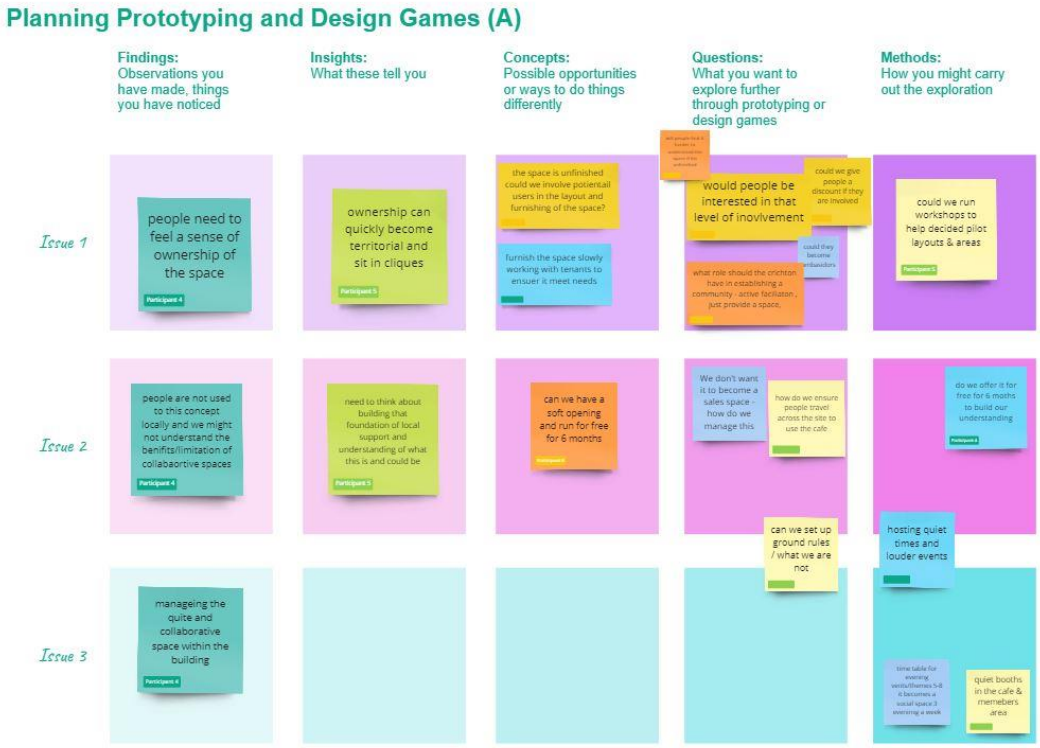

Figure 7: Planning and prototyping

Figure 7 shows how the issues arising have been evaluated prior to moving to the next stage. Having detailed what we considered users would need we compared this with a customer

journey map which involved a visualisation of the process that a person goes through in order to accomplish a goal. In this second stage of ideation, we compiled a series of user actions into a timeline. Then we added desires and pain-points for each step in the user's journey, based on the one solution decided on previously. For this part of the workshop, participants used the online whiteboard.

To do this we defined the activities and steps in the users' experience, then asked participants to combine any steps that are too similar, narrowing it down to 8-15 steps. We then grouped the steps into phases and aimed for three to seven phases in total. Phases were labelled from the user's perspective. For example: Getting started, trying to contact, interacting with other users, etc. Then participants were asked to come up with goals and pain-points that relate to each step in the user journey. Goals are what propel the user from one step to the next, while pain-points prevent the user from moving forward. Finally, participants presented and reflected on all the user journey maps created. This activity could have taken place offline, and participants join to discuss their various efforts or work collaboratively online to create one user journey.

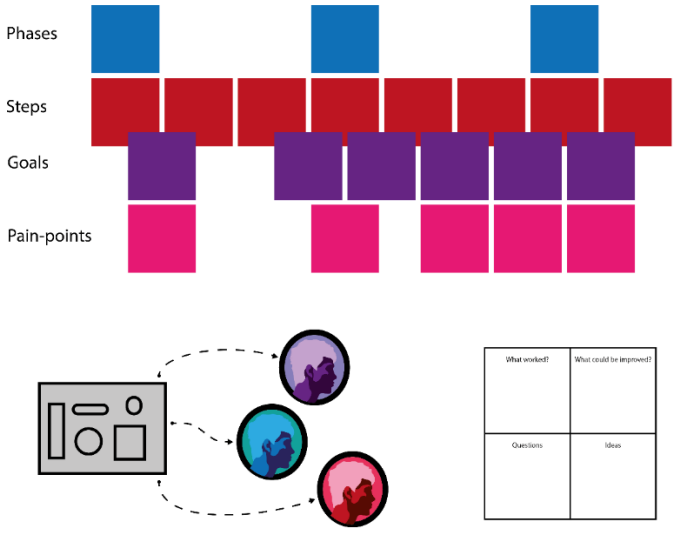

Figure 8: Sample Customer journey map.

This was a sample of a customer journey map which was used to explain the process. The participants then worked collaboratively online using Miro to create an actual journey map using data collected from users of the charity and this is illustrated in Figure 9.

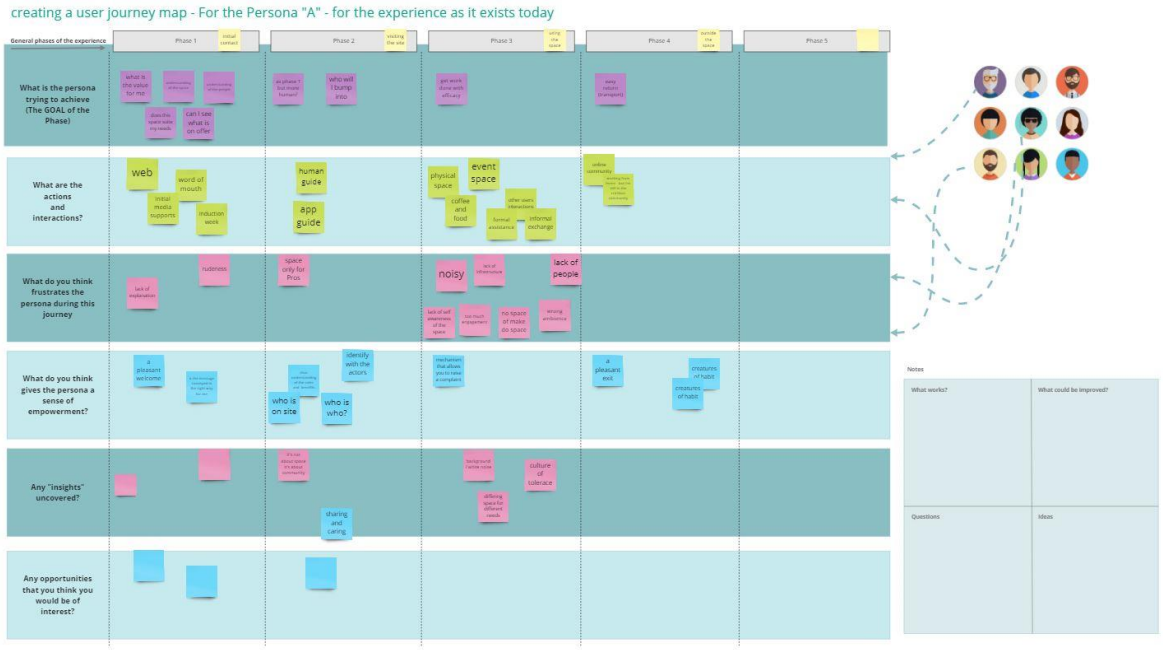

Figure 9: Customer Journey map of actual process.

If we were conducting an in-person workshop, this is where we would have moved on to create physical or digital prototypes of the ideas, ready to be tested on real users. However, when conducting a remote design thinking workshop, we needed to adapt this stage slightly and set it as an independent post-workshop activity.

So, after the workshop, we had a design student develop prototypes based on the ideas generated in the workshops and these were then given to our participants to test. When all the protypes were submitted we placed them on a virtual whiteboard and asked participants to spend some time gathering feedback. The participants used use a feedback grid with the following quadrants: what worked, what could be improved, questions, and ideas. For some participants who were keen to test their ideas, they emailed them to the users and then called them to walk them through the process, gathering feedback.

In Workshop 4 participants discussed the prototypes which were created by the student. A sample of which are illustrated in Figure 10.

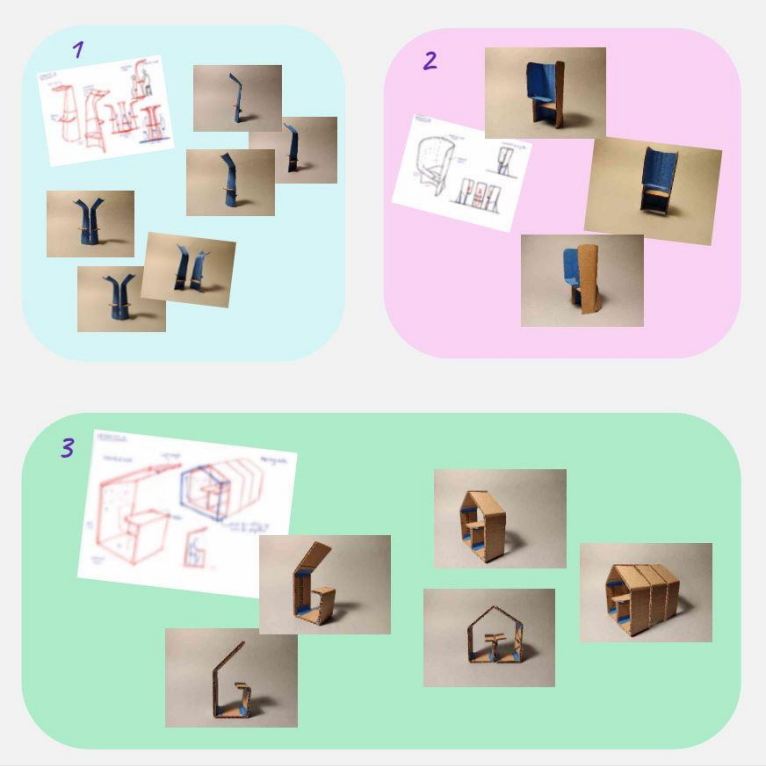

Figure 10: Prototypes.

The participants then went on to evaluate the prototypes using a variety of tool including drivers and hurdles illustrated in Figure 11.

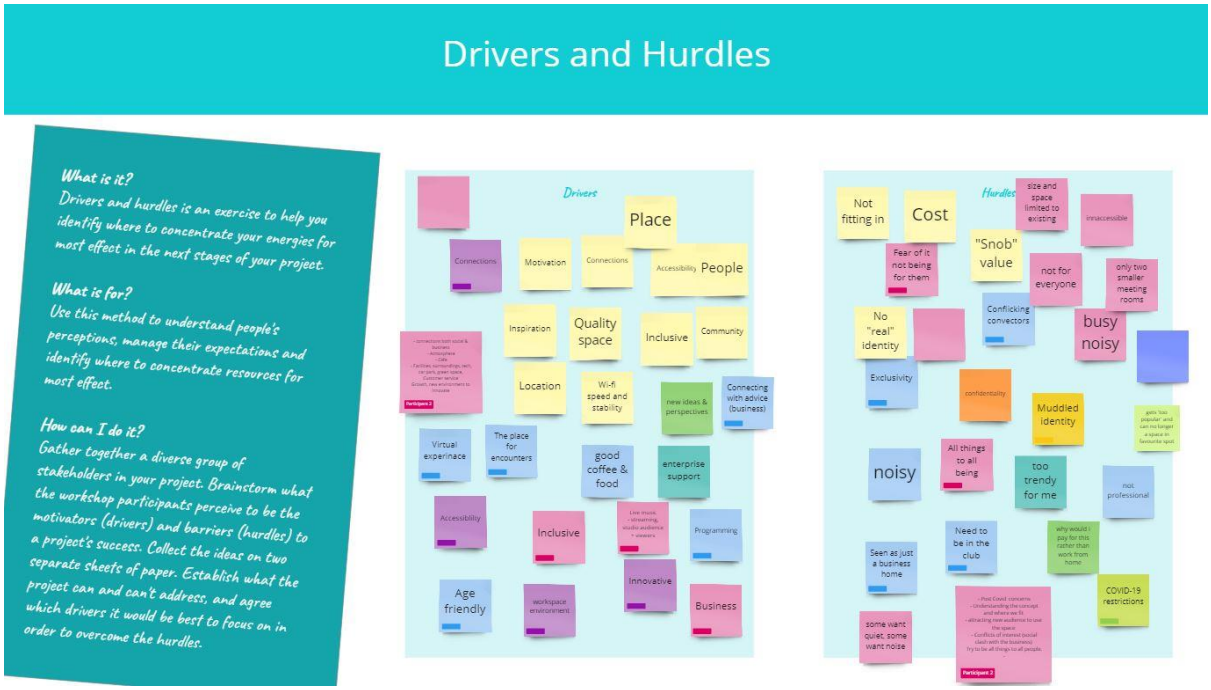

Figure 11: Drivers and Hurdles.

In workshop 5 we widened design thinking tools our from the micro level of the user to strategic thinking for the charity by undertaking a design strategy sprint. The process of this is illustrated in Figure 12.

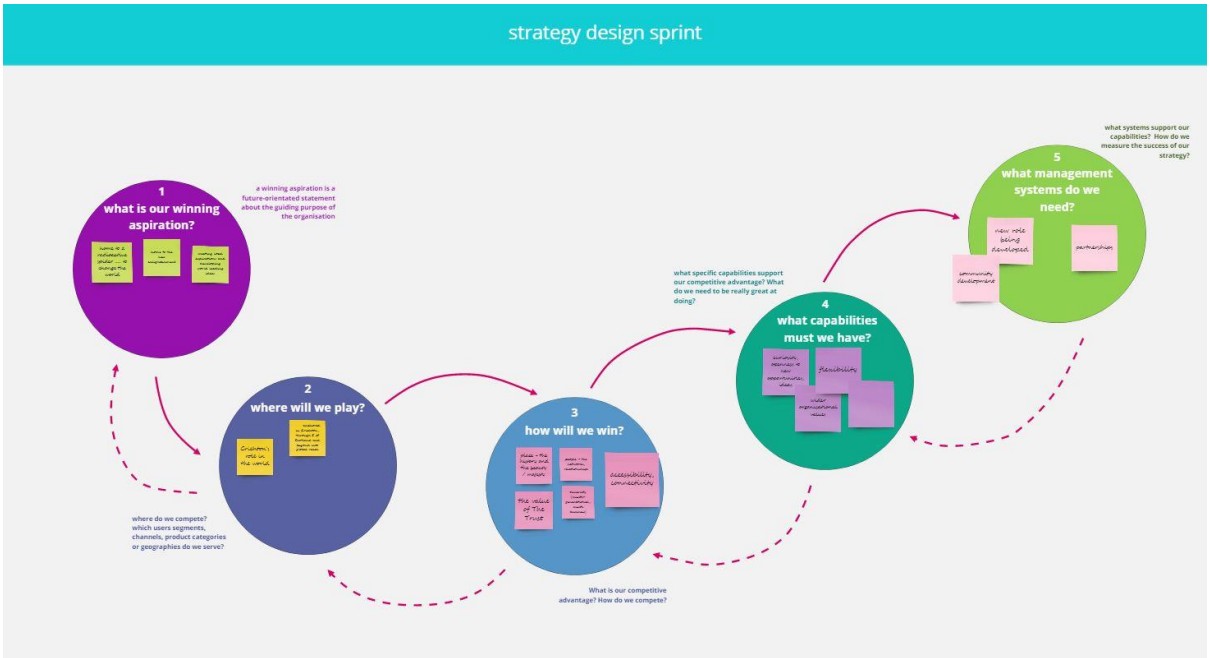

Figure 12: Design Strategy Sprint.

Design strategy sprints are a dynamic tool designed to enable the aligning of a business strategy with the market and the users and consumers. We undertook this sprint within workshop 5 in a time-bound, structured, and intensive manner aimed to solving the overall business challenge the charity was facing (the HMW question) but using this to defining a strategic path forward. They foster creativity, collaboration, and rapid decision-making.

A Strategy Sprint typically unfolds in several stages, each designed to expedite strategic planning and increase its efficacy. Firstly, we used a stakeholder mapping tool which we used within the online workshop, and which was facilitated by the CEO of the charity. This enabled open discussion of stakeholders. This tool is used for the team to collectively identify priority stakeholders and identify how a chosen design concept or project might offer value to different stakeholders in different ways, thereby tying in the operational decisions on the project to the strategy. The Stakeholder Value Map (Figure 12 is a visual map of the key stakeholders and the value propositions that a particular design solution or concept offers to them. It enables the creation of the value proposition which was created as a result of this activity and involved stakeholders, employees and importantly users and consumers. Doing this activity collaboratively deepens empathy for the diverse needs of different stakeholders and understand what they need to offer to and might receive in exchange from different stakeholders. Solutions and concepts that are developed differently considering what value propositions they offer.

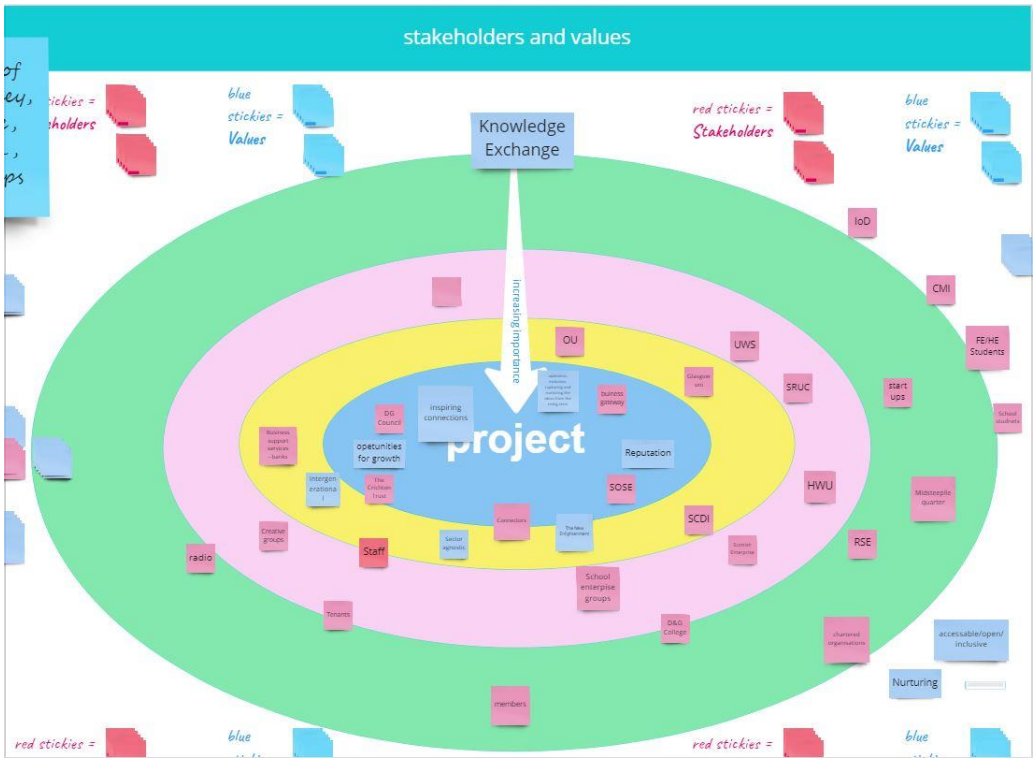

Figure 12: Stakeholder Value map.

Using insights from the stakeholder value map the capabilities required were discussed and finally a value proposition was created which all participants agreed on.

Figure 13: Value proposition statement

5: Part 4: Findings

This creative facilitation project, using design thinking to deliver collaborative online creative workshops which explored knotty problems around entrepreneurship for older people and found that establishing personal and professional connections and networks was the key issue.
The use of design thinking tools via the use of Miro online engendered trust amongst the participants and it enabled them to be both collaborative and creative. Overall, the results from the creative facilitation workshops also inspired the charity to develop service design thinking capabilities among staff to promote and sustain advanced services for their clients and stakeholders. The incorporation of service design thinking capabilities resulted in intentional practices in the development of more service-oriented, customer-focused, and human-centred skills in the entrepreneurial project.

After the charity launched their entrepreneurship centre they continued to use design thinking approaches (e.g., interviews, in-field observations, cultural probes for data collection) with users, clients and other external stakeholders, the use of co-creation workshops with stakeholders across different departments and externally with customers and partners, the use of visualisation tools (customer journeys, service blueprints, and personas) in these co-creation workshops, and the application of design prototyping methods (models) to test new concepts and ideas internally, across departments and external to the We also found that by creating the value proposition with the client and users in collaboration with stakeholders forged a commitment to ensuring that the organisation delivered on this promise. This contrasts with the findings from Skålen et al. (2015) who claim that the value proposition should be created without involvement from the user or consumer.

The charity sees real benefit in embedding the use of both design thinking techniques and collaborative cross-organisation tools such as Miro into our day-to-day leadership, development and management. At a time when we need to be nimble and responsive to the emerging future, there is a continuous need for design and adaption; only by utilising these techniques and tools will we succeed in connecting people, place and the past to shape the future." CEO

Our adapted approach developed in this project offers additional value to stakeholders and individuals by using a 'servitisation' approach to co-creating solutions for entrepreneurs of all ages.

Our findings concur with Blomkvist and Segelstrom (2014) who proposed that visual tools play a central role as co creation tools when embarking on projects that culminate in designing value propositions and making decisions. We also agreed with Tauscher and Abdelkafi (2017) who state that visualisations influence mind sets and help establish shared understandings both within the organisation and with stakeholders.

6: Part 5: Conclusion

This paper contributes to the gap in practice-based research on exploring the needs and wants of entrepreneurs to enable them to engage with the changing professional work environment post COVID -19 by taking a design thinking, value creation 'servitisation' approach with a set of tools and practices that product-centric organisations can use for service innovation and effective implementation. The way we interact with users, clients or consumers is changing and now rather than interacting with them on a sporadic basis we are moving towards continuous personalized interactions. At the heart of this is 'servitisation'. Organisations are now being forced to rethink and reinvent their business model and pivot towards a service model to stay relevant. To do this they need to employ methods of obtaining key insights into issues facing employees and stakeholders and creative facilitation using a bespoke framework of design thinking concepts and tools is a way of achieving this.

7: Part 6: Limitations and future research

This study has a few limitations with implications for further research. First, the study is based on a single case study so despite having undertaken further trials of these concepts it is too early to assess the generalisability of our findings. Further research could improve our findings through insights from additional case studies; for instance, involving different organisation and industry types in an international context.

The occurrence of the COVID-19 pandemic and its effects during our creative facilitation project shaped the implementation of the strategic design sprint recommendations. As a result, developing further creative facilitation projects aimed at understanding how organisations develop their design thinking and 'servitisation' capability, what practices are adopted over the medium to long term requires more attention.

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