

Understanding the potential role of digital technology in time banks: A qualitative study

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Executive Summary

This document reports on interviews conducted in Summer 2024 with staff and volunteers (referred to as community facilitators in the report) who support the operation, running and organisation of time banks in the United Kingdom. Our interviews focused on understanding the practices and processes of running a time bank and engaging time bank members, and to explore the ways in which digital technologies might enhance time bank staff, volunteer and member experiences.

Our interviews highlighted:

- That time banks are uniquely shaped by their local contexts and their specific membership. Facilitators (those who primarily coordinate and run the time banks) often work in part-time or unfunded roles, and have to manage complex tasks blending social, administrative, and logistical skills, with their efforts often going unnoticed by members.
- Facilitators are essential in connecting community members for skill exchanges, relying heavily on personal relationships and knowledge of members' interests and history rather than formal systems. Their role requires balancing hands-on coordination with allowing connections to grow organically, ensuring successful and comfortable interactions between community members.
- Most time bank facilitators focus closely on personalised matchmaking to build relationships. Discussions revealed scepticism about automating these processes, as many believe human facilitation is essential for fostering true connections and community warmth.
- Community facilitators carefully evaluate requests and volunteer offers to ensure they align with time bank values, preventing exploitation and fostering reciprocity. To manage workload and prevent burnout, they may limit requests or introduce compensation, ensuring sustainable participation.
- Facilitators found it hard to balance the organisation of community events with brokering individual connections. While events were vital for fostering community ties and raising awareness, they were resource-intensive and often conflicted with other responsibilities like administration and matchmaking.
- Facilitators face challenges onboarding new members due to perceived bureaucratic barriers, particularly the requirement for character references. To overcome these obstacles, they often use personal meetings to build trust and assist potential members through the application process.
- Facilitators are responsible for communicating opportunities and requests to time bank members, and make use of multiple channels like WhatsApp, email, and physical newsletters. This helps reach different demographics, but also creates inefficiencies and challenges in managing communications, leading to discussions about automation versus maintaining a personal touch.
- Facilitators are responsible for tracking member exchanges and updating time credits, often stepping in to document hours due to system complexities and members' reluctance to self-report. This task involves using proxy ledgers to maintain records, as the process on the digital platform can be cumbersome and many members prefer focusing on giving and receiving help without the administrative burden.
- Facilitators often handle the responsibility of tracking exchanges, facing challenges as members don't always report their activities. To ensure accurate records, facilitators use estimations and stress the importance of documentation for demonstrating the time bank's community impact and fulfilling insurance requirements, as seen in structured approaches by some banks.

- Facilitators noted that many older adults or more vulnerable members struggled with feelings of guilt when asking for help or accepting time credits. To address this, facilitators emphasised time credits as acknowledgments rather than payments, and promoted systems like community pots to redistribute credits, ensuring all members could participate without feeling obligated.
- Facilitators observed a division between "time-rich" members, who often had surplus credits, and "time-poor" members, who needed help but couldn't reciprocate. To address this imbalance, facilitators encouraged time-rich members to donate credits to the community pot to be distributed to those who were time-poor, ensuring inclusivity and support for all members.
- Facilitators face significant challenges with the "Time Online 2" software, which hinders efficient member onboarding, matchmaking, and exchange tracking due to its lack of advanced search functionalities and user-friendly interface. As a result, facilitators rely heavily on personal knowledge and manual processes, leading to inefficiencies, inconsistencies, and difficulties maintaining operations, especially when staff or volunteer changes occur.

On the back of the findings from our interviews, we identified the following recommendations for the design of new digital applications and tools to support the operations of time banks:

1. Partial automation of matchmaking with community facilitators in the loop.

Incorporate partial automation to assist facilitators in matching time bank members, enhancing relationship formation while reducing reliance on manual memory-driven processes.

2. Development of online members profiles to support self-matchmaking. Develop detailed online profiles for self-matchmaking, allowing members to share skills and interests, while still enabling facilitator oversight and intervention.

3. Highlighting under-used and over-used volunteers in the community. Implement tools to identify and address the over- and under-utilisation of volunteers to prevent burnout and enhance engagement.

4. Tools to enable the idea generation and planning of local social events. Provide digital platforms for collective event ideation and planning, reducing facilitator burden and encouraging community participation.

5. Simplified onboarding processes and forms. Streamline onboarding with user-friendly digital forms to lower barriers for new members using established design principles.

6. Social and cross-organisational vetting. Enhance vetting with social and organisational affiliations, possibly utilising blockchain for secure, cross-organisation record sharing.

7. Implementing records of achievement. Create time exchange records to recognise member contributions, supporting skill development and community impact documentation.

8. Personal time credit wallets and self-recording of exchanges. Enable self-recording of exchanges and personal time wallets for real-time credit management, reducing facilitator workload.

9. Incentivising greater use of community pots. Directly integrate community pot contributions in digital wallets, using blockchain for transparency in credit use and decision-making participation.

10. Transferring credits between time banks. Explore methods for transferring credits across time banks, ensuring equitable redistribution and community benefit.

11. Auto-generation of reports for funders. Utilise tools to automatically generate comprehensive reports for stakeholders, combining quantitative data with multimedia qualitative insights.

1. Introduction

Time banking is a form of community exchange where individuals trade time-based services rather than monetary compensation. It operates on the principle of reciprocity, where time is the currency, and people exchange services such as tutoring, caregiving, or household repairs, amongst much more. Typically, for every hour of service a person provides, they earn one-time credit, which they can later use to receive help from another community member. Time banking fosters social cohesion, supports underserved populations, and encourages mutual aid in communities, making it an attractive alternative to traditional market-driven economies.

However, the sustainability and scalability of time banks face numerous challenges, particularly in managing administrative tasks, tracking exchanges, and ensuring efficient communication between members. The role of community facilitators is essential but often burdensome for the individuals in such a role. These facilitators not only manage the operational side of time banks such as onboarding new members and tracking time credits but also play a pivotal role in brokering relationships, organising events, and fostering community engagement. Their workload is compounded by the need to navigate complex social dynamics and ethical considerations, such as balancing "time-rich" members who rarely spend their credits with "time-poor" members who need more help than they can provide.

Our research within these complex social dynamics of time banking is exploring the role of new technologies in helping time banks and other volunteer-based time exchanges to help track and manage the activities of volunteers. The overall aim of our project is to create an application that is accessible via people's mobile phones or via a website, with the intention to reduce some of the administrative work of time banks and enables volunteers to track and exchange time for helping others in their community. Our project is particularly interested in a relatively new technology based on distributed ledger called blockchain – a technology that has great potential to support setting up diverse currencies and allowing users to exchange value between each other - and how that might help with these issues.

This document reports on the preliminary analysis of data from our initial interview study with 20 participants that were involved in organising, running or administering time banks in the United Kingdom. The report is structured in the following way. In section 2, we provide a short overview of our study methodology for this first stage of research. In section 3, we report on the findings from our analysis of interview data, structured into 11 sections representing core themes across our interviews. In section 4, we reflect on our findings and describe specific design recommendations and directions for digital platforms and applications that support time banks and their members. After this, in section 4 and 5 we provide descriptions of user Personas and Archetypes that represent some of the core needs, skills and motivators of potential users of a future time banking application. These are based on the findings from our interviews. In section 6, we provide Service Blueprints for time banks, again based on our data. These provide a structured representation of how time banks operate currently, and how they could operate in the future with additional digital support.

2. Methodology

We recruited participants with the help of Time Banking UK as our project partner. The recruited participants were involved in the running and organisation of existing or previous time banking initiatives. They were invited to participate in our research so we could learn about their experiences of either participating in time banks or helping in their running and co-ordination, where technology is used currently in their time banks, what they consider the major challenges facing time banks are, and how we might design ethical incentives and rewards to taking part in such exchanges. We were also interested in learning about how their time banks onboard new members and what members motivations seemed to be for participating in time banks, and how their time banks track and account for interactions between members. In total, we interviewed 20 people (age range of 30 – 80 years). Our participants were primarily in a role of responsibility of running the day-to-day activities and operations of time banks (#). A smaller number of our participants were trustees of time banks who had being part of their initial formation (2), or volunteers who gave their time in kind to support time bank staff (1). We also interviewed # participants who were involved in running Local Economic Trading Schemes that made use of time as a unit of exchange.

The semi-structured interviews were conducted either online or in-person and lasted 30 – 60 minutes. The interviews covered a range of discussion points which were introduced through open ended questions. They started with discussing the history of the time bank and the motivations for and circumstances around the participant to get involved in it. After this, the interviews focused more on the operations of the time bank, including how members were recruited and engaged with, how exchanges were supported and tracked, and how exchanges were monitored. At appropriate points we asked follow-up questions related to the role of technology in the current running of the time bank, and the role of technology in ameliorating difficulties discussed.

All the recorded data from the interviews was anonymised and later transcribed using pseudonyms associated to the participants. The transcripts were reflexively thematically analysed (Braun & Clarke, 2019¹) by two researchers in the research team. This involved coding transcripts of the interviews with short summary descriptions, and then compiling similar codes together to form coherent themes. These themes form our findings presented in the following section.

¹ Braun, V. and Clarke, V. (2019) 'Reflecting on reflexive thematic analysis', *Qualitative Research in Sport, Exercise and Health*, 11(4), pp. 589–597. doi: 10.1080/2159676X.2019.1628806.

3. Findings

Our interviews revealed that every time bank is unique; the structure and function of time banks were heavily influenced by the local context in which they operated. As explained by Amelia who is the broker of a time bank located in an isolated village setting.

“A personalised time bank does exactly what our community wanted and needed ... I think that you know each community is different... I've sort of developed my own set really of co-produced ideas and policies and procedures” – Amelia

The geographical qualities of place where the time banks were situated influenced the structure and functioning of the time bank. For example, time banks which functioned in a larger area faced issues with member management and retention. However, the smaller time banks which were concentrated on smaller areas were able to successfully provide localised activities, events and opportunities for social connection. The local characteristics of place were also influential in influencing membership, priorities and dynamics of the time bank.

In rural areas, time banks played a vital role in addressing social isolation, particularly among older adults. Facilitators in these areas described time banks as essential for providing social support, connection and practical help to individuals who might otherwise be disconnected from their community. For example, the villages or smaller towns have ageing populations where many of the older members were physically isolated and struggle to be connected to other due to the relative remoteness. These towns also face issues in local connectivity and transportation, here, time banks enable social connectivity. They address loneliness through befriending events and aiding odd jobs for older members of the community. However, in urban areas, time banks served a different function, focusing on helping newcomers and migrants integrate into the community. These time banks emphasised social cohesion and provided opportunities for individuals to build social capital in a new environment. Facilitators in these areas described the challenges of managing a more transient, multicultural and diverse membership, which required different approaches to engagement, participation, retention and placemaking.

Most prominent in our interviews however was the insights around the complexity of running a time bank and how community facilitators² manage these challenges, in ways where their work and labour is often hidden and unseen to time bank members. The role of community facilitators in time banks is not just administrative (although this plays an important part of their role still, as noted in the next theme); it also involves fostering social relationships and community cohesion. Facilitators are responsible for a wide range of activities that include brokering connections, managing events, and maintaining the overall health of the time bank. Their work is inherently multi-dimensional, requiring a blend of social, administrative, and logistical skills.

Only a small number of the community facilitators we interviewed had funded roles, and even if funded they were on part time or fractional contracts. The various demands of the role make it difficult to manage all the responsibilities within set periods of the day or week. They spent an especially large amount of time and effort in carefully considering how connections between local community members could be facilitated and made.

In the following sub-sections we present our analysis of our interview data, presented as ten themes focused on unpacking the role and work of community facilitators, and a final theme reflecting key challenges associated with the Time Online 2 software.

² These roles also tend to have different titles – e.g., time bank administrator, time bank coordinator, or community broker, amongst others. We use community facilitator here to broadly capture these roles, which all had responsibility for “running” the time bank and building connections with and within the local community the time bank served.

3.1. The complexity of matchmaking

One of the primary responsibilities of facilitators is brokering connections between individuals who are willing or wishing to offer their time and skills, and those who might require them. This in itself was highly time intensive for our facilitator participants, and while an “exchange is maybe just for one hour, [...] it could be like another hour of planning that exchange” (Niamh). The process of organising an exchange can involve extensive back-and-forths, as highlighted here by Amy:

“They’ll say “I need some help with this thing” or “I need to borrow a table” or whatever, and then I’ll send a request out to our members, and then they’ll get back. And then I’ll say to that person “ok we have some people that are offering this thing” and either offer them their contact and say “are you happy for me to share your contact with that person” or “do you want me to coordinate it”. Like if somebody wants someone else to come to their house, I might, depending on the person I might say “oh do you just want to have their contact and you organise it” or do you want me to actually organise the day and sort of be the mediator and be a bit more hand holding, sort of thing.” (Amy)

Facilitators described the process of matchmaking as more than a simple matching of skills. Instead, matchmaking required a deep understanding of the social dynamics within the community, the personalities and preferences of members, and what interests and preferences members have that are often not directly related to the request they have made.

“If we match somebody with somebody that they’ve got similar interests or you know. Then they’re much more likely to make friends. And when people are friends and that support and that, you know, looking after each other comes naturally and everybody gets a lot more out of it.” (Olivia)

“It’s about knowing they would get on with each other, you know what I mean? It’s about that sense that I have you know, as I’ve built up relationships, so you’re not just matching anyone with anyone and hoping for the best. [...] There’s all these small little things but like if they’re not thought about the exchange is not going to happen. The most important things and I said this to all members, volunteers and all that, the most important thing is that everyone feels safe and is comfortable.” (Niamh)

One facilitator explained that while requests may appear straightforward on paper, they often required deeper consideration of interpersonal factors. Brokers also put a lot of attention on qualities of a request for help that went beyond just what was stated – for example, finding out about the background circumstances of an individual that is asking for help, and the aspirations of members who may be able to help. This also often involved an awareness of historical interactions and relationships between community members (e.g., being aware if members had a past history), whether the individuals would get along, or whether there was an opportunity for long-term relationship building.

“We’ve also have things where there are some people in the village that don’t get on with other people. And so when they come to me and say, oh, you know, I need this something done. But can you not ask this lady please? Because. We, you know, we don’t get on there know to put it politely.” (Penny)

A key issues many facilitators reflected on in relation to matchmaking was how “hands on” and “in the loop” they needed to be in order to facilitate exchanges or “swaps” in their time bank. The facilitators often explained how they had to walk a fine line between facilitating these connections and allowing them to develop organically. It was generally recognised that, at a minimum, facilitators needed to monitor what exchanges are happening:

“You have to approve the exchanges [...] I might know that that person isn't as good as they think they are. And I can go back to the other person and say, look, you know, this person might be better.” (Penny)

It was very common for the facilitators to be much more involved in facilitation than this however. The core activity of matches being made between those making requests for help and members of the time bank was very often dependent on the knowledge of the facilitators:

“Most of the matches that get made come from me having in the back of my mind, or I know that that person over there said they quite fancied that thing that this person's just said they can offer, and I will then manually make that connection. So, it relies quite heavily on that broker in the middle.” (Charlotte)

“It depends on what the offer is, what the request is, who I would then think. Oh yes. Well, I'll think of that person. Can do it or I do also ask Annabelle and Rachel. Who do you think? Sometimes I think. Oh, I'm not sure this is a bit. [Then I make....] phone calls and ringing people and asking if they can help.” (Helen)

“You know people who offer specific skills, they do tend to stay in my brain. But you know, we've got nearly 300 members, so I can't remember everything that everybody offers.” (Olivia)

As noted here by Olivia, it was very typical for the facilitators to be very reliant on remembering who their time bank members were, and what skills, interests or other things they may be able and willing to offer as exchanges. Through the interviews, it became clear that while TO2 did offer some functionality for members to list their skills and what they'd be willing to offer, this was poorly maintained, incomplete, or not referred to by the facilitators. Instead, facilitators were more reliant on their own memories and intuition, or on consulting with other time bank staff and volunteers for recommendations.

“We pretty much know by what people's backgrounds are, and once you get to know what they're good at, you know that they're good at [for example] crafting. They're good at artwork. We've got one young lady. We see her, I'll say every three-weeks or four. And she's very good at doing posters and things like that. So you know, you know who your core people are. And don't get me wrong, we have about 30 core people out of over 100.” (Carl)

3.2. Matchmaking as building relationships

The previous theme highlights how most time bank facilitators keep close attention to how they make matches between people with specific needs and requests, and their time bank members skills and interests. Not all the time banks operated like this, however. Some did make use of public communication channels and approached match making by

A small number of time banks approached matchmaking by sharing requests for help out to their members via a range of communication channels. It was noted, however, that this would not always be very successful, and would still need the closer involvement of facilitators to make exchanges happen:

“Someone's needed this done and it sat there three weeks. Nobody's doing it, and then we might discuss. Well, is there anybody that you know within that might like to do it that you can reach out to? [We often need to] prompt people with the matches to say, oh, look, have you seen this on here? [...] we'll ring and go “oh, you said you're quite interested in

some gardening” And they go. “Oh, totally forgot to look. Totally forgot to. [...] So it is very labour intensive.” (Emily)

The amount of time given to matchmaking by the facilitators naturally led to discussions in interviews about the ways in which these processes could be supported, or even partially automated, by technology. A small number of participants felt technology could help with such matchmaking and take a lot of the work off a facilitator – for example, by providing people with automatic recommendations of local community members with appropriate skills for a request. However, the majority felt automation would create more risks than benefits. Some facilitators highlighted how time banking was about relationship formation and there needed to be careful human facilitation to foster social connections. This was noted at length by Niamh, Olivia and Helen in their interviews:

“Exchanges can be very transactional. You come paint my wall and that’s it. But our exchanges are so much more now about relationships, you know, like, taking someone to a medical appointment that cannot just be someone that someone doesn’t know and that. That’s where you know, I am not trying to be negative. But a computer system can’t do that. It can’t do that kind of, you know, it’s my perception of “would this person get on with him” but it’s also about doing the social activities to see how they engage with each other.” (Niamh)

“It’s that matching people based on potential for friendships because that’s what community is, it’s becoming friends [...] Without the broker it does fall slightly back into that “done to you” service. You need a bit of human connection because ultimately it’s all about human connection. And without a human person creating a million Facebook posts a month.” (Olivia)

“I prefer face to face. I prefer speaking to somebody. Yes, you could, but then [...] You wouldn’t get the befriending and the contact. I don’t think it would become functional. It would become just, yep, practical it wouldn’t become warm and friendly. [...] tones of voices on phone, [...] even an e-mail. Like sometimes I do prefer a phone call because then you can gauge. Are they OK? Are they not OK? So, [...] machines can’t do it all. [...] Because Timebank isn’t about machines, it isn’t just about practical actuality. It is about getting the people together in the community [...] you need that link with us [facilitators].” (Helen)

3.3 Maintaining responsible use of time exchanges

A key element of matchmaking is also considering the nature of a request for help, or indeed an application to be a member and to give time to others, before facilitating any exchanges. In our interviews we did not observe any formalised rules or requirements that time banks set out regarding what an appropriate use of the time bank looks like. However, it was clear that before going ahead with facilitating exchanges between time bank members, community facilitators would take great care to evaluate whether a request for help, or an offer to volunteer, is appropriate.

When evaluating a request for an exchange, facilitators would assess whether the request aligned with the time bank’s values. For instance, some requests were seen as attempts to exploit free labour, such as asking for help with tasks that should be paid for professionally. Facilitators developed an intuitive sense of what constituted a genuine request for help versus a more commercial need or wanting a service that should be paid for done for “free”. This practice highlights the facilitators’ role in maintaining the ethical foundation of time banks, ensuring that exchanges are based on reciprocity rather than exploitation. It was also a way to ensure expectations could be clearly set with those who are making a request for help.

“I did get a request at the weekend to be a regular volunteer, a monthly volunteer request. And I haven’t put that out so I don’t know what the response would be to that. But I would imagine that would be harder to get people to get people to commit to rather than a one off thing. And so I have suggested to them that we put out a one off request and see how it goes from there, and then it may be better to engage somebody with just that initial request and then see if they can do that again.” (Amy)

Brokers also often controlled the number of requests passed onto already active members so that they do not experience burnout. One facilitator gave the example of an existing member, Jim, who gives technical support in the community helping people fix their laptops and if they are facing any issues with technology in their homes. Jim being the only one in the local community sharing these skills is often called upon by community members, especially those who are less literate with technology. As a means to manage the requests that Jim received, the time bank introduced a small amount of monetary compensation for Jim’s time direct from the time bank. Introducing the monetary compensation ensured that Jim didn’t get called more than needed, and deterred volunteer burnout.

3.4 Facilitating relationships through social events

A challenge that many facilitators faced was being able to clearly define what the scope of their role was. This was especially challenging in relation to understanding how proactive they needed to be in running events and activities that support members in need of support in their community, versus brokering connections between people to do their own things.

“I find knowing where I stand as one of the challenges, as in knowing how much to get involved as we’ve already talked about before. How much, which part of it is my job in time banking and which part isn’t my job. Should I like, like, to what extent do I coordinate these activities, um, and to what extent do I hand it over.” (Amy)

Many recognised that there seemed to be pushes and pulls in the role, between the facilitators having a responsibility to create spaces for people to come together by setting up events and community programs, or by being responsive to specific skill-based requests. This push and pull was seen across all the Time Bank facilitators we interviewed; however, some saw event running more clearly as part of their role to build community connection as it was a response to the perceived needs of the community they were operating within. In the example below, Tracey was reflecting on her time starting out as a facilitator for a time bank that had been left dormant during the Covid-19 lockdowns of 2020 and 2021:

“Just the whole thinking about how to re-energise the time bank was that what people actually wanted was events. They wanted people to come, they wanted to come to do something with other people.” (Heather)

Events served multiple purposes, from introducing new members to the community to providing opportunities for individuals to contribute without the formal structure of time exchanges. For example, workshops and social gatherings allowed members to interact in a more casual setting, which could lead to future time exchanges. These events were seen as vital for creating social capital, fostering new connections, and encouraging participation.

“[My role is about] putting on events. So coffee morning every Thursday morning again at the same pub, it’s at the dolphin and it’s to get people together and as I said, the one to one exchange is sort of come from that they’re they’re really quite organic.” (Heather)

“we have a programme of social activities that we offer out to time bank members and members of the community and stuff. That’s where we will be encouraging new time bank members and community members to come along. Because that’s where we get to know them, you know what I mean, and then they get to know the time bank and the things to get involved in and get to know other people. It’s those social activities that really help for the exchanges to happen and the like. And then you know with the induction we get all our policies, we have a user manual as well which covers health and safety and exchanges an stuff like that.” (Niamh)

Proactively planning and running events was also seen to be critical to gather momentum and build awareness around a time bank in a local geographical area. Several participants framed such events as “promotional” activities and also as a way of building awareness and trust in the time bank and the people running it within the local community:

“When I first came in, I thought it was best to concentrate on the events, the activities, because I needed to get my face out there. I wanted everybody in the village to know who I am. [...] everybody knows that I’m a starting point for, you know, for help in in any way shape or form because we also signpost and things like that as well. You know separately from the time bankers because we’re there in the community with people it’s you know they need to be able to trust you and recognise you and see your face.” (Penny)

Facilitators acknowledged that while these events were essential for building community, they were also resource-intensive, requiring careful planning and coordination. Some facilitators reported feeling that a unexpectedly high amount of their time was spent on generating ideas for local events, planning them, and then coordinating and running them. The pressure of organising these events often conflicted with facilitators’ other responsibilities, particularly the administrative tasks of managing paperwork, matchmaking and onboarding new members.

3.5 Navigating barriers to onboarding new members

A recurring theme among facilitators was the difficulty of onboarding new members, particularly due to the extensive paperwork and the perceived bureaucratic barriers that this involved. The ways in which potential new members would come into first contact with the time banks is very diverse. Some might attend an event organised by a time bank, some may have a chance interaction with someone else in the local community that signposted them to the time bank, and in some cases a potential member might contact the time bank directly to enquire about becoming a member as they required some help or as they wished to find volunteering opportunities. After this, in order to formalise their membership, time banks would require initial application documents to be completed by the prospective member. Typically this would include completing an application form comprising of several pages, asking them to share certain personal details and, importantly, the details of two people who could provide a character reference.

It was generally noted that, for some local community members, the completion of this paperwork was seen to be a barrier to joining the time bank:

“Another thing that may put people off is that you have to, I think it is two references? [...] I think the form filling and stuff like that may be hold someone back, with wanting to register.” (Amy)

“There are many people who say “I don’t really see the need to join the timebank stuff. I’m not going to fill your form in because the form is, you know, there’s quite a lot to you know share information wise. And no, I’m not going to do that” or they get difficult

or there are just some people I just won't approach. And I just think "Nah, they won't want to do it." So you know, I make a judgement." (Heather)

In Heather's example above, she was also referring to the many situations her time bank had run social events or group activities, that were aimed to be inclusive and open to anyone who wished to take part. In referring to making a "judgement", she reflected on how she could not mandate that people who participated in these events became a time bank member. She reflected on how, for some potential members, the paperwork might appear as overly extensive for just *"giving up a bit of time to help someone"* or taking part in a local event. Instead, she would focus her attention on building relationships and trust with members, and build up to inviting them to be an official time bank member after they had regularly taken part in its activities:

"So if someone's been coming to events for a while and I think that there are, what's the word open to be talking about time being, then I'll just talk to them and there's an application for you to fill in. They have to get a reference. We're supposed to have two references, but that's enough." (Heather)

This gradual approach helped build trust and allowed new members to become integrated into the community before they were formally registered at a later date. Often, in these cases, when the value of being part of the participating in the time bank was clearer, people would be less resistant to formally completing the paperwork.

Heather was not alone in airing the concerns around the perceived bureaucracy, and several facilitators acknowledged that some people would simply never complete the paperwork – and that in certain cases more vulnerable community members would not have the capacities or literacies to understand what was needed. Facilitators reported that bureaucracy is a deterrent to new members which limited the time bank's ability to grow and diversify its membership. Potential members struggled in particular with the character references which required a person who wasn't a relative or close personal friend to advocate for them. The requirement for new members to complete multiple forms and provide character references was seen as a particularly significant barrier for older or more vulnerable individuals.

To navigate these challenges, facilitators often employed a range of workarounds. As a way of helping community members navigate some of the perceived complexity and barriers that the onboarding paperwork seemed to present, many of the community facilitators explained how they would arrange initial face-to-face meetings with those wanting to join the time bank. These meetings would guide the prospective member through the application form, often with it being completed with the facilitators during the meeting.

"I'll just sit and do the application form with them and then I'll put them in the system, get a reference if I can there. And then, you know, we'll either somebody else is there. It could be me that does a reference if I've known them for long enough. That's the sort of way I'll do if somebody's been coming for." (Heather)

3.6 Tailoring communication to diverse memberships

Beyond onboarding new members, another key responsibility for the community facilitators was then communicating with members about opportunities to participate in time bank activities and to send out requests for help. Most of the participants – both time bank facilitators and members – were users of the "Time Online 2" (TO2) system (software provided by Time Banking UK to its member organisations). TO2 had functionalities that allowed time bank members to receive emails from their time bank facilitators. However, it was clear that very few of the time banks made use of this software for the purposes of

communicating with members, and instead each time bank had established their own approaches to communicating depending on the perceived preferences of the facilitators or their members.

“I [...] promote them on the website and [...] I communicate mostly by WhatsApp, I set up a WhatsApp group. Not everybody is in it because not everybody wants to use WhatsApp or wants to use their mobile phone all the time. But it's my preferred way to communicate. I also e-mail through the TBUK TO2 Software and if I'm honest, I'm not really sure how successful that is.” (Heather)

Many of the discussions around communication highlighted a trial-and-error basis of iterating approaches to communicating with members, depending on responses and uptake of opportunities via different channels. Facilitators made use of a variety of platforms, including Facebook groups, Facebook Messenger, WhatsApp, email lists, phone calls and in a few cases physical newsletters posted out to members. These platforms would variously be used for more general communications (e.g., sending out periodic or regular newsletters and digests of upcoming events) or for distribution and discussion of requests for help.

The trial and error approach described by many of the facilitators was a means to tune their communication and engagement practices to the needs of their local members. Several of the time bank facilitators explained how their core membership did not necessarily make extensive use of digital technologies and platforms, or in some cases did not have the literacies or resources to access them. As such, they emphasised the use of “traditional” communication channels, such as using postal mail to share regular newsletters promoting exchange opportunities or leaflets to promote wider awareness of the time bank:

“It's about treating all of our members as equals and many can't get on emails, or they can't get on WhatsApp group, then are they missing out because they don't have the technology, the skills or the desire. So the main form of communication I do is our social activities programme that I post out and mail it once a month. So that is our go to. And then if there is stuff coming up that I think we need help with, or people are offering help, then I would put that in the programme as well. Because the programme is posted out to our time bank members, but it's also posted out to people who have expressed an interest in joining.” (Niamh)

Others were looking to make use of digital tools to help reduce the overhead of communicating, and somewhat facilitating self-organisation between community members around regular types of time banking activities. For example, Amelia discussed her intentions behind her recent increased use of WhatsApp for communication and coordination within the community. Her role in the time bank was going to become more limited as the funding was coming to an end. Therefore, she wanted the members to organise themselves to pick up on coordinating for events and exchanges:

“That means that there will be more power sharing of responsibility and jobs. So we've developed a lot more WhatsApp groups, so instead of me engaging with people individually ... we've now got groups set up. So, it's just posted on the WhatsApp group, you know we're going to do this today. Who's coming?” (Amelia)

The use of multiple communication channels and the added flexibility this brings allowed facilitators to reach different demographics in their communities, particularly older members who may not be comfortable with digital platforms or might not own a smartphone. However, this approach also created inefficiencies, as facilitators had to manage multiple communication channels simultaneously. This fragmentation made it difficult to keep track of requests and responses, particularly when members were spread across different platforms. Facilitators expressed frustration over the time and effort required to maintain

communication with all members, noting that a more centralised system could significantly reduce their workload. Similarly, others suggested ways of automating these communications to reduce labour. However, for some, there were concerns that automating such processes would dehumanise the time bank, and isolate members of the community that did not conform to the expectations of adopting digital channels.

3.7 Tracking and recording exchanges

Another core responsibility of the facilitators was tracking the exchanges between community members, to ensure that these are documented and that members time credits can be accurately kept up to date. All the time banks we interviewed operated on the basis that one hour of time exchanged equated to a time credit, with most breaking these into halves as well. In general, it was observed that these would always be approximations of peoples time and there was a bias towards generosity: *“We asked them to let us know how long they've spent doing it. [...] And quite often we'll give them an extra half an hour”* (Helen). This was elaborated on by Grace:

“Everybody works differently, some work slower than others, some are quicker than others but I don't think anybody holds that against anybody. They won't sort of turn around and say, well, you could have done that job in an hour, but you've taken three. Nobody is like that, I think everybody is taken on their own merit and equally whatever they packed into that hour I think is accepted by the recipient and the person that's given their hours” (Grace)

These approximations in exchanges led to rounding up of hours and being overly generous about the time people had given to each other. However, it also posed challenges in terms of tracking and reporting, as exchanges were often delayed or unreported altogether. *“I've literally only just started to update the system again, so I've got a lot of back dating to do and Janet's also helping with me with that.”* (Penny) What is also hinted at through these excerpts is that the facilitators were often heavily in the loop of tracking exchanges between people. One of the main challenges the community facilitators faced in their role was ensuring peoples exchanges were appropriately tracked and documented. All the facilitators we interviewed explained that most of their members did not actively track their own time and enter this to the TO2 system.

“It tends to be that people don't really log into their own account [...] So rather than them log on and log in their time, it's on us to do that. As a coordinator.” (Amy)

“If there's somebody there, then that we can match, introduce them straight away all the time is recorded through the system. Generally by me, people will just e-mail me or text me and say I did 4 hours for for Pauline this week or I did this or that.” (Olivia)

While the functionality for members to track their own time via TO2 did exist, it was acknowledged that the process for them to do this was unwieldy and complicated:

“It's not straightforward, so for a member to do the entire thing themselves online, they have to create the request, have the other person accept the request, report the hours, then it has to be confirmed, and then it goes through the system.” (Olivia)

However, beyond the barriers posed by the digital systems currently available to time banks to track exchanges, it was also often acknowledge that there were motivational and other factors that led to time bank members failing to track their exchanges. Niamh explained:

“They do understand the time bank, but I do think they are happy to be given their time, to get something back, and not worry to much about the time banking concept”

itself. I guess that's where I come in with the recording and all that because, again, it's just another thing for someone to do "oh well, now I have to record my time credit", you know what I'm saying. They just want to give their time, and they just want to get something back, and they want to enjoy it. So rather than have all this red tape around it and that." (Niamh)

As a consequence, tracking and recording exchanges was almost exclusively performed by the facilitators, or specific time bank volunteers or where helping with the administration of the time bank. This would typically involve the creation of "proxy" ledgers – spreadsheets, or in some cases physical notebooks – to track the exchanges, and these then been updated periodically onto the TO2 system.

3.8 Keeping aware that exchanges are happening

In the previous section, we saw how the work of update records of exchanges happening in time banks was often the responsibility of the facilitators, who would update records and ledgers as they were made aware of exchanges happening. However, many other facilitators were often faced with situations where their time bank members would not proactively keep them informed of exchanges that had happened. There were a myriad of reasons for this. Sometimes even if someone had become a member of a time bank, they were still struggling to understand the concept of what a time exchange was, and would not think about tracking what they had done for whom, or what someone had done for them. Others did not feel the need to have their time tracked because they felt the task they had performed was too small or insignificant, or because they saw it as a more altruistic act of helping their community out. Tracy recognised that many people would not be immediately inclined to tell her about exchanges saying "*oh that was nothing I don't need the credits for it*". This was especially true for group events such as litter picks which had become regular social activities for community members to come together, and personal exchanges between members who had then become friends over a period and no longer felt it was appropriate to log these as exchanges.

"It is time banking, but people wouldn't have thought, you know, they don't see themselves as a time bank volunteer. They just see themselves as coming out to do something that happens to be put on by the Council if you like [...] it's a bit of a sort of conundrum that I've had since I took the job on so." (Heather).

"The time bank has kind of done its job because I have found with some of my time bank members that they are doing. They are volunteering and doing stuff for each other. [but] They're not coming to me and saying, oh, I did, you know, I did this, or somebody did this for me. Can you give them time credits. [...] because they're their friends and their neighbours anyway have said, well, you know, I don't do it to get something back." (Penny)

Therefore, facilitators developed various approaches to ensuring they were kept aware of exchanges happening to ensure records were maintained. Some relied on approximations, such as counting the number of people at an event and multiplying by the duration of the event to estimate total hours.

"Things like a coffee morning or a litter pick are at set times, well I guess it isn't I just put in that they've done the entire three hours and suppose yeah [...] they could have just gone home after an hour or a half or something. So in that case I just put in the max time, the whole time, that the activity took place." (Amy)

"I would have to, you know, be there to really know who was there. But I'll take a rough, rough idea, you know, from Betty, one of my members, or Harry and, you know,

record that. But most other things I can recall because I was there or if I wasn't there, I've got somebody who sort of, you know, not deputising for me. [...] Today [for example] they most of them are not interested, they don't care and they've just come and done what they want to do. But for me, I know there were six volunteers there. They all did 3 hours today and I'll record that as time bank exchanges.” (Heather)

Others compelled their members to report their exchanges for other reasons. Emily made the point that tracking the exchanges was important for demonstrating the value of the time bank itself, and that in many respects these interactions between people would not have happened if the time bank had not existed. She would stress to members to tell her of these, even if they had no intentions to use the credits on themselves, explaining that this would help demonstrate the impact of the time bank on the community or to the funding body such as local councils.

“People don't tend to pass stuff to me people because people generally. [...] Are not necessarily interested in building the hours up because they're going to use them in some way. For me, it's evidence. That's why I want to know [...] my evidence is how many Members I've got, how many organisational members I've got? How many hours have been exchanged in the month.” (Heather)

Heather continued to explain how she would be transparent with her time bank members around why capturing their exchanges was important in reporting on the health of the time bank, and its value in supporting community members in building social connections:

“As time went, members, most of them are not interested because they just say “I come, I volunteer for the hub. I don't need to record that anyway” whereas again, it's more evidence of what is actually being funded by volunteers within the community. So I think that there is that and I find that all the time. “Why? Why do I need to fill this form in Heather? You know, I'm just coming. I just want to come and do what I do and that's enough, you know”, and I can sell it because once they get to know me and I say it's actually quite good for me, I need some evidence, you know, I need to show how what I'm doing.” (Heather)

Notably, one time bank we interviewed stood out to others as having very well established and formalised means of tracking exchanges, underpinned by insurance requirements. Evelyn talked extensively of the safeguarding practices they had established for monitoring exchanges. They would make sure the time bank volunteers always checked in and check out of doing time bank duties – this was seen as part of the time banks duty of care to its members and ensuring lone working was being monitored, and also their legal responsibilities in terms of public liability insurance.

“We say you have to let us know when you've arrived or when you've left for our insurance and to know you're safe and that and not to meet the members outwith the time bank because if something were to happen, and we didn't know about it, you're not covered by insurance.” (Niamh)

As explained above by Evelyn above she made it clear to members that they won't be covered if she doesn't know and the interaction between members isn't logged in on the system. A byproduct of these communications was that she always knew when exchanges were happening and could track the amount of time exchanged and enter it to the system manually herself.

3.9 Breaking down barriers to participating in time exchange

Another critical theme that emerged from the interviews was facilitators noting that many members, particularly older adults, struggled with feelings of guilt around asking for help or accepting time credits. As people get older, there was a sense of loss of independence and autonomy, and that asking for help was seen to be a means to reinforce these negative sensations of a changing self-identity. These emotional barriers often prevented individuals from fully participating in the time bank, either because they felt uncomfortable receiving "compensation" for helping others or because they were hesitant to ask for help, out of fear of appearing dependent.

"I do think there is an element of guilt with requesting to volunteer, and also, not many people seem [...] to look into how to reward themselves for it. Quite often when people are putting in a request they might then say "oh I don't know what I can do in return [...] It's most, yeah, mostly just putting in a request and feeling that they don't have much to give back." [...] And then a lot of people have enough credits in order to spend them but I think they'd find it difficult, emotionally, they feel a bit of guilt. I think there is a bit of guilt on both sides. There is guilt, it seems, from some people putting out a request. And then a bit of guilt when you do something." (Amy)

One facilitator shared the story of an elderly member who insisted on paying volunteers in cash, even though the services were provided through the time bank, which, as the facilitator noted, *"defeats the point of a time bank"*. This member felt that accepting help without paying undermined their sense of independence, highlighting the emotional complexities involved in time banking. In contrast, some members found that knowing their help was "rewarded" with time credits made them more comfortable asking for assistance, as they knew the volunteer would also benefit.

Many facilitators felt, people get volunteering and time banking confused or perhaps struggle with the idea of time banking as they simply see it as a form of volunteering. Some facilitators even explained time banking to new potential members as *"volunteering but with a little reward"*. There were tensions however in that many people did not feel like they should receive a "reward" for helping someone out, as noted earlier. To mitigate these feelings, facilitators encouraged members to think of time credits not as a "payment" but as a way of acknowledging the support they were offering. Heather explained one specific time bank member who used the accumulation of time credits as a means of self-reflection on her own value and involvement in her local community:

"It's complicated for her more because she's felt she's never really belonged anywhere else, and this proves that she belongs to something. She's volunteered. She's incredibly committed to what she does for us, and it's really heartwarming, you know, that she's never really belonged anywhere else. So this is given her something that's, you know, it's hers. And it shows. This is what I did. But, you know, she doesn't have to prove it to anyone else, but she wants, I think she wants the recognition. [...] I've known she sees her hours building up and that, you know, that's good for her." (Heather)

In recalling this specific time bank members situation, Heather went on to explain how she would also be one of the few members in her community that would actually keep a close eye on her time credit balance and ensure it was kept up to date. Heather reflected on situations where she (Heather) had not updated the system very quickly after an exchange had happened which had upset this member: *"I had not realised that. And when I did make that mistake, I now make sure she's one of the first ones I do, because I think she'll look, you know." (Heather)*

Facilitators also worked to normalise asking for help, emphasising that everyone *"regardless of their circumstances"* (Liam) could contribute to the time bank in different ways.

"[Many people will say] I can't do anything. We had one woman say "I need all these things here, but I can't do anything. I can't do anything. I'm housebound." And so I start just started chatting with her generally and notes and crochet and she crocheted some amazing stuff. And I was like, "well, would you be happy to give people crochet lessons maybe online?" So she was like, "well, yeah, I can do that, you know". "Would you be happy to give one of our Members a call just for half an hour every Thursday just to check?" "Well, yeah, I can do that." [...] I haven't met anyone yet who doesn't have lots to give, even if they don't believe it when they first." (Emily)

Another way of navigating the challenges of being rewarded and the guilt associated with this was in developing processes where time bank members could share their credits with members or groups who are less able to generate their own time credits. For instance, they encouraged members to donate their unused time credits to a "community pot," which could then be redistributed to individuals in need.

"The community pot is a pot of virtual time credits, and if people have, mmmm, earned 50 time credits and they say "Niamh you know we're never going to use this" they might say could you put 50 into the virtual community pot and that. [...] Anyone that has supported someone who wasn't part of the timebank, or maybe wasn't contributing to the time bank at that stage, the people that helped got the time credits from the community pot and that." (Niamh)

This system allowed members to contribute without feeling that they were profiting from their altruism, and it helped ensure that vulnerable individuals could receive support even if they had no time credits of their own.

3.10 Balancing the time rich and time poor

Most of the facilitators talked about how their membership could be characterised into two groups – people that required help in one form or another, and people that had time and willingness to give support to others. Facilitators observed a clear division between "time-rich" members - those who frequently volunteered but rarely used their accumulated credits – and "time-poor" members – those who required help but lacked the ability to reciprocate with their own time.

Time rich members were often long-time volunteers, retired or perhaps unemployed and living within the community. Time-rich members often expressed little interest in tracking their time or using their credits for personal needs. In some cases, these members were unaware of how many time credits they had accumulated, or they found the process of checking their balance too cumbersome due to limitations in the current system: *"Most of them are not actually interested in how the hours are building up. And they'd be surprised at how many hours they've accumulated."* (Heather)

Brokers often take up the task of informing the members at various occasions their time credit balance. This on occasion is to encourage time rich members to either personally use or donate their credits to someone in need in the community or to the community pot.

"I give feedback to every member, to how many credits they have and encourage them to save them, spend them or give them away and that in, you know, increases activity enormously. People get a flurry of excitement as they decide to donate some of their credits" (Amelia)

"I also put to them that they don't need to spend the time credits on themselves. We also have local groups that are signed up to it. So like, you know, the brownies and rainbows and the scouts and things like that, they could give their time credits away to other local

community groups. One thing I find that when we have deceased members and I go to their families they say can you either put it back in the time bank part the time or the time or the time bank community pot.” (Penny)

As described above, facilitators made efforts to address imbalance across their membership by encouraging time-rich members to donate their unused credits to a community pot, which could then be used by time-poor members or those facing temporary challenges. This redistribution of time credits helped ensure that all members, regardless of their capacity to contribute, could benefit from the time bank. Facilitators emphasised that this system allowed the time bank to maintain flexibility and inclusivity, enabling everyone to receive support when needed, even if they could not directly "earn" credits.

However, facilitators also noted that time banking is not purely transactional and that exchanges often went beyond the formal accumulation of credits. We've already highlighted in earlier themes how many members would refuse to log their hours because they felt the exchanges were acts of goodwill, not something that required compensation. Furthermore, it was noted by some that *“Time credits, they are ‘made up’ they exist virtually so it doesn't matter”* (Mia). As such, it was commonly agreed upon within time banks that even if someone was “time poor”, and did not have credits, that they would still receive support if someone was able to give it to them. This was stressed by Heather and Amy in their interviews:

“We've never, we would never say no, because someone's in deficit, nobody's in deficit. I say these are all virtual hours. You know, I could give, you know, I could give you 1000 hours tomorrow and you can use them.” (Heather)

“It's important to reiterate that [...] its not really a kind of a you scratch my back I scratch yours kind of thing. [...] it's more about just offering opportunities and it doesn't matter if someone is wayyy in a deficit especially if there are people who are up for helping them.” (Amy)

Some of the facilitators noted that the idea that people had to have time credits to receive help, and that there was this “material” exchange of credits, was a bit of a problem with the concept of time banking. The challenge with the idea is that there were these traditionally defined roles of a receiver and giver of help, acknowledging that someone seemingly in “need of help” might actually be offer an opportunity for social contact or intrinsic reward for someone who helps them out. The exchanges therefore were inherently bidirectional and relational and reciprocal which become problematic in the context of a system of exchange that assumes the transfer of a unit from one person with a need to one person with the resources to address that need.

3.11 Technological Considerations: Problems with Time Online 2

During our research, we identified significant challenges faced by time bank facilitators using the existing "Time Online 2" software. Nearly all facilitators reported difficulties, particularly in the areas of member onboarding, matchmaking, and tracking exchanges. Time Online 2, which serves as the primary administrative tool for most time banks, is responsible for managing member profiles, matching service requests with available volunteers, and generating reports for both members and external stakeholders like funders. However, the limitations of this software are apparent, and they hinder the overall efficiency and functionality of time banking operations.

Facilitators highlighted how the process of creating and managing member profiles on Time Online 2 is cumbersome. During onboarding, facilitators must manually enter and store information about new members, including their skills, availability, and preferences. This

task, already time-consuming, becomes more complex when the system fails to provide advanced search or filter functionalities. For example, facilitators cannot filter members by geolocation, distance, or skill set, forcing them to rely on their own memories and personal connections when matching members for exchanges. This lack of automation leads to inefficiencies and often results in mismatches that could have been avoided with better software capabilities.

One of the most common complaints from facilitators was the difficulty of finding suitable matches between members seeking help and those offering services. The absence of specific filters (such as distance, availability, and skills) and consolidation of member data in one place, within Time Online 2 makes the matchmaking process labour intensive. Charlotte describes the unitality of technology to create geolocated swaps to make her work easier.

“It takes a lot of time to organise and to identify appropriate swaps and to support them to take place. I do think technology's got a big part to play in managing that better. So being able to sort things into categories really clearly sort things by location so that people can identify ... The big one for us is the geographical challenges, we are we're spread over quite a big county, my patch in particular is completely rural. So it takes people a long time to get to each other. It's expensive for people to travel between places. So kind of reaching a point where hyper local availability of swaps is quite difficult, you know utilising technology for this could be really, really useful” (Charlotte)

Facilitators are left to rely on their tacit knowledge of the community, which is not always available to new team members. This creates a significant barrier when a new facilitator steps in, as they do not have access to the personal knowledge accumulated by their predecessors. Without these essential search and filter tools, the matchmaking process becomes inconsistent and overly dependent on individual facilitators' memories.

In situations where facilitators change or rotate, the learning curve is steep, and much of the tacit information about members is lost. New facilitators struggle to familiarise themselves with the system, which lacks intuitive design and organisational features, further slowing down their ability to manage exchanges efficiently. The gaps in the software design leads to problems in maintaining the flow of exchanges, disrupting the overall user experience for both facilitators and members.

Another area of concern is the tracking of time exchanges. Facilitators are responsible for ensuring that all exchanges are logged in the system, but many report that the software does not make this process easy. Tracking time credits manually and creating reports becomes time-consuming and error-prone, particularly when many members do not actively log their hours. Facilitators are often forced to make approximations, create paper-based records, leading to inaccuracies in both individual and overall time bank performance reports.

4. Design recommendations

In this section, we reflect on the insights from our interviews with time bank staff and volunteers to derive design recommendations and directions for new digital applications and platforms to support the operations of time banks. We structure the section through eleven design recommendations. Most of these directly link back to the findings reported in the themes through Section 3, but a small number also relate to broader reflections from conversations with time bank staff and volunteers beyond those reported in the previous sections. The recommendations are not reported in any order to signify their importance.

1. Partial automation of matchmaking with community facilitators in the loop. Our interviews highlighted how much of the current matchmaking process between time bank members is manually performed by community facilitators. Fully automating these processes would likely be impossible, and also focus too much on creating time transactions rather than the formation of trusted relationships between members. However, there still is an opportunity space for incorporating some partial automation to augment the manual work that facilitators already do. This could be by providing recommendations to facilitators about potential matches (e.g., via keyword association, or prior historical exchanges). This would also help address the issues where facilitators were too reliant on their own memory of members skills and interests, and potentially reduce over-reliance on a small number of members.

2. Development of online members profiles to support self-matchmaking. While the current TO2 software does provide some functionality for time bank members to share information, there is a lack of system that enables members to share more detailed profiles with information about their skills, interests, motivations and availability. Providing such a space could support self-matchmaking between time bank members. Profiles could also include information related to previous exchanges a member has participated in, and their affiliations with other entities (e.g., other time banks, local community organisations). While introduced to support self-matchmaking, and reduce the work of community facilitators, the facilitators would still be looped into matches that are made and have the potential to intervene in them.

3. Highlighting under-used and over-used volunteers in the community. While only reported briefly in our findings, the issue of volunteer and time bank member burnout came through several of our interviews. The over-reliance on a small set of “super” volunteers is a well known issue in the community and voluntary sector. A simple way of support time banks in understanding this issue in the context of their own organisation would be for back-end office tools that highlight those time bank members that are “over-used”, and also those who appear to be under-utilised.

4. Tools to enable the idea generation and planning of local social events. We saw that some time banks focus their work on organising a diverse range of events in order to bring community members together, and to promote membership and enable exchanges to happen more organically. We also saw how this was highly resource intensive for time bank facilitators, and indeed some struggled with constantly coming up with ideas for events and finding the time to plan and run them effectively. There are opportunities here for providing digital tools that could help collective idea generation for local events – e.g., social digital platforms that enable people to share ideas for local events, get feedback on them, and potentially to vote on which ones to run. These events could be supported via the “community pots” we saw many time banks have established, with the time of time bank members being supported by the community bank of time credits.

5. Simplified onboarding processes and forms. A major barrier to the engagement of potential new time bank members were the forms that they needed to complete in order to formally become a time bank member. While in some respects the completion of a form will always involve some overhead for people, there might be an opportunity here to simplify these processes by creating lighter-touch digital forms that follow well-established guidance on good form design (e.g., the Gov.uk service design guidance on web forms).

6. Social and cross-organisational vetting. Related to the above, one further complexity for new members was completing the character references and then completing criminal record checks for those who complete time exchanges in the homes of vulnerable people or with children. There are opportunities to incorporate new tools that enable people to do light-touch, but still meaningful, references for people – e.g., by inviting a current time bank member who knows a potential new member to complete a short form via a mobile application. There are also ways to explore vetting via affiliation with trusted organisations. For example, organisations could become members of a time bank, and people affiliated and known to those organisations might be automatically “vetted” on membership databases. Blockchain technology in particular opens up the opportunities for privacy-sensitive sharing of peoples details (including their skills, volunteering history) between organisations. This would also avoid different organisations duplicating vetting processes.

7. Implementing records of achievement. We saw that for many time bank members that would accrue time credits they would rarely spend them. However, what appeared to be more meaningful for some members was credits being a signifier of their roles in the community, and being a recognition of the help and support they have given to someone. As such, there are design opportunities here to develop time exchange records of achievements, which might also include information on skills demonstrated and the impacts time given has had on community members that have been supported. These records of achievement might be especially valuable to individuals who participate in time banks in order to build their volunteering CV, or to develop specific skills and experiences that may need to be demonstrated or evidenced for future employment or educational opportunities.

8. Personal time credit wallets and self-recording of exchanges. A significant overhead for community facilitators was the time spent in the manual recording exchanges between community members. There is a clear opportunity here to develop tools that give simple ways for members to log their own exchanges, with a light-touch approach to validation or verification of these from facilitators. Self-recording of exchanges should also come with easy access to “real time” information on time credit balances e.g., through access to a digital wallet with the information available in it. Integrating these functions into a digital application could also support “push notifications” that periodically remind people of upcoming arranged exchanges, and their time credit balances, and opportunities to donate unused time credits to other community members or the community pot.

9. Incentivising greater use of community pots. Our interviews revealed many time banks valued the use of community pots as ways for members to share back their unspent time credits with the community. However, the use of these pots was inconsistent, and awareness amongst members of their existence is quite low. There are opportunities here to building in donations to community pots directly into the design of time credit wallets that are accessible via a mobile application. It would also be interesting to further explore ways to incentivise use and enable time bank members to have greater awareness of how their donations get used and be involved in their community decision making. For example, blockchain technology could support those who donate time credits to a community pot to see how their donations have been used by other people in their community (e.g., anonymous reports back on the types of exchanges that have been supported). Or, these technologies could enable members that donate to a community pot to then have a voting share on decisions for how that pot is spent on local community activities.

10. Transferring credits between time banks. A further point of discussion with time banks was how members may relocate to different locations and be involved in multiple time banks over their lifecourse. In some situations, where there are multiple time banks operating in a relatively near locale, people might be members of more than one of these. We therefore discussed the opportunities for the transfer of time credits between time banks, something that again could be supported via blockchain technologies. Implementing such functionalities would require careful consideration of the implications of taking time “out” of one community and into another; and perhaps include mechanisms whereby time from community pots or other unspent credits is transferred back into the community from which the time was initially “generated”.

11. Auto-generation of reports for funders. Finally, we believe there are opportunities for new tools that support the auto-generation of reports that enable time banks to report on their activities to funders or other key stakeholders. This might include reporting on aggregate data around the number of members, number of exchanges, the categories of exchanges that have occurred etc. However, perhaps more interestingly we could also look at the ways people could create “digital footprints” alongside exchanges, logging feedback, visual or video media documentation of time bank activities, and testimonies around the impact of participating in the time bank. These could be exported into rich-media digital reports, that convey both the quantitative and qualitative aspects of the value a time bank provides to its local community.

5. Personas

To move from our interviews to design recommendations, we have also developed six personas based on the findings of the analysis reported in the previous section. Personas are “fictional characters [...] based upon [...] research in order to represent the different user types that might use [a] service, product, site, or brand.” The six personas we have developed represent the diverse range of individuals involved in time banking, each with their own motivations, challenges, and needs. By understanding these personas, time banks can tailor their processes, technological solutions, and community-building efforts to better support all members, ensuring the system remains inclusive and effective.



Frank Miller

THE COMMUNITY-MINDED ADVOCATE
MALE

LOCATON: Cardiff  **AGE:** 55

BACKGROUND: Active in multiple local initiatives, such as a being a volunteer for the community hub, food bank and time bank - has lived in the same area for 20 years

ROLE: Actively promotes time banking within the community and helps facilitate its growth, even if not directly involved in administration

MOTIVATIONS:

- Believes in the transformative potential of time banking as a tool for fostering social equity and inclusion
- Wants to see time banking grow and become a sustainable, integral part of the local economy

CHALLENGES:


- Frustrated by the inefficiencies in communication and administrative processes, particularly the reliance on outdated systems for tracking and managing time credits
- Concerned about the outdated technology systems currently used for time banking and thinks a new updated system would be better. He also acknowledges how most people his age however would struggle to quickly adopt new app without some form of formal training and support

NEEDS:

- Advocacy for adopting modern technological solutions like blockchain to streamline the administrative side and reduce the burden on facilitators
- Support in growing the time bank's membership and visibility within the broader community through targeted outreach


TECHNOLOGY USE:

- He can use a smartphone for calls and texts and occasionally browse the internet, but he struggles with more complex tasks like setting up new devices or using apps



Linda Turner

THE SOCIALLY ISOLATED ELDERLY MEMBER
FEMALE

LOCATON: Bromsgrove  **AGE:** 80

BACKGROUND: A retired nurse, who has lived alone in rural area of the west midlands for many years. She has experienced physical isolation and limited mobility support over the past years since her recovery from cancer

ROLE: Relies on time banking for social interaction and practical assistance, such as help with grocery shopping and companionship

MOTIVATIONS:

- Joins the time bank primarily for the social connections it provides rather than the services themselves
- Values the sense of community and personal connection that time banking offers.
- Feels valued as a member by contributing

CHALLENGES:

- Struggles with digital platforms and does not have access to the internet, making participation in the time bank vital for support in these areas, such as online shopping and filling out digital forms
- However, she is hesitant to ask for help, out of fear of appearing dependent or losing independence

NEEDS:

- Accessible, non-digital ways to engage with the time bank, such as phone-based communication or physical newsletters and community meet ups
- Social events or group activities organised by facilitators to reduce isolation and build a sense of belonging.



TECHNOLOGY USE:


- Linda is very technological adverse and would struggle to use an app without a broker or a time bank member supporting her. Having the main aspects of the time bank remain the same would allow her to feel involved and not a burden





Margret Thomas

THE OVERBURDENED FACILITATOR
FEMALE

 **LOCATON:** Peterborough  **AGE:** 61

 **BACKGROUND:** Retired social worker, community organiser and volunteer - has lived in the community for the past 15 years


 **ROLE:** Coordinates time banking operations, manages administrative tasks, and facilitates matchmaking between members.

 **MOTIVATIONS:**


- Margret is deeply committed by the idea of building a strong, interconnected community where people support each other through shared skills and services
- Wants to foster community well-being and social connections
- After years in social work, finds personal fulfilment in seeing tangible benefits her efforts bring to others
- Sees the time bank as a tool for empowering others and addressing social isolation

 **CHALLENGES:**

- Faces an overwhelming workload, balancing event organisation, matchmaking, and administrative tasks such as onboarding new members and tracking time credits
- Finds it difficult to maintain the necessary level of engagement in all areas, especially when managing the social dynamics of brokering relationships
- Lacks a streamlined process for communication, resulting in the use of multiple platforms like email, Facebook, and WhatsApp, which increases complexity and workload

 **NEEDS:**

- A simplified and integrated system for managing time credits, communication, and member onboarding
- Assistance in maintaining a healthy balance between administrative tasks and community building



 **TECHNOLOGY USE:**

- Margret is comfortable with email, Facebook, and WhatsApp, word processing, and basic spreadsheet functions but thinks an app would be a great way to streamline time bank process
- Though she finds it difficult, Margret is eager to improve her technological skills and is open to learning new tools that could help her manage the time bank more efficiently




Leila Ahmad

THE NEWCOMER
FEMALE


 **LOCATON:** London  **AGE:** 25

 **BACKGROUND:** An immigrant who has recently moved into the community. She works as a barista, while also pursuing a career in fine art. She has moved to the country with a good level of English but does not know many people


 **ROLE:** New to time banking, unsure of how it works or how to get involved

 **MOTIVATIONS:**

- Interested in making connections and integrating into her local community. She is uncertain about the concept of time banking and its benefits
- Initially looking for a way to offer help or receive services while settling into the new environment so she can feel more integrated into the community

 **CHALLENGES:**

- Finds the idea of completing paperwork and providing character references off-putting and bureaucratic. Also, unsure of how it would work with her immigrant status
- Lacks an understanding of the time banking system and how time credits work, making her hesitant to engage
- Does not know many people in the community, so currently struggles to ask for advice or support in these areas

 **NEEDS:**

- A gradual onboarding process that allows them to get involved in events or exchanges to get a taste of time banking before completing full membership requirements
- Clear, simple explanations about how time banking works and how to participate, possibly through digital platforms or community outreach



 **TECHNOLOGY USE:**


- Tech-savvy, comfortable with using smartphones, social media, and basic software applications. She uses Instagram to showcase her art and connect with other artists. She has a basic understanding of websites and online forums but is eager to improve her digital skills and would like someone to walk her through the time bank app





Bob Smith

THE TIME-RICH RETIREE MALE


 **LOCATON:**Portsmouth  **AGE:** 72

 **BACKGROUND:** A retired mechanic, with a passion for gardening, caregiving and volunteering. Recently moved to the area, so would like to join the local time bank


 **ROLE:** Frequent volunteer in his last community, who regularly contributes time but rarely redeems time credits

 **MOTIVATIONS:**

- Bob finds meaning in giving back to the community and staying socially connected, especially as his wife has passed away several years ago
- Enjoys sharing his skill sets and passion for gardening with others in the community but doesn't feel the need to be compensated for his contributions

 **CHALLENGES:**

- Uncomfortable with receiving time credits for help, viewing it as unnecessary compensation for what he sees as altruistic acts
- Feels no urgency to track or use time credits, leading to unused balances that accumulate in his account

 **NEEDS:**

- A clear, easy-to-use system to check his time credit balance without being overwhelmed by technical complexity
- Opportunities to donate time credits to community pots in a way that feels meaningful and aligned with their values.



 **TECHNOLOGY USE:**


- He is comfortable with email and basic internet browsing. However, he is not adept with newer technologies like smartphones, social media, or modern apps and would need someone to teach him





Alex Evans

THE TIME-POOR SINGLE PARENT MALE


 **LOCATON:** Hull  **AGE:** 35

 **BACKGROUND:** Full-time IT developer, with limited spare time as a single parent, often juggling childcare and professional responsibilities - has lived in Hull his whole life but wants to be more involved with the community


 **ROLE:** Primarily a recipient of services, relying on the time bank for help with tasks such as childcare

 **MOTIVATIONS:**

- Participates in the time bank to gain access to services, such as childcare, which he cannot afford or manage alone
- Sees the time bank as a support system to help balance family and work responsibilities

 **CHALLENGES:**

- Struggles with the guilt of asking for help without having enough time to give back, leading to feelings of indebtedness or dependency
- Found the onboarding process intimidating due to the paperwork and character reference requirements

 **NEEDS:**

- A simplified, user-friendly system for requesting help without feeling burdensome or guilt-inducing
- Opportunities for contributing back to the community in ways that suit their limited availability, such as low-commitment volunteer roles or giving community members who are technological adverse support with using the new app, other devices they may struggle to use

 **TECHNOLOGY USE:**

- Alex is very good with technology as it's job to be up to date with new trends and technologies

6. Archetypes

To compliment the Personas, we have also developed three time bank user “archetypes”.

Here are several archetypes that represent the different personas involved in the time banking ecosystem based on the report’s findings. These archetypes will help illustrate the various roles, incentives and interactions within the time banking community.

5.1. The Do-Gooder

Motivation: Altruism and community service

Background: Often involved in charity work, volunteering, or social activism

Role: Regular contributor to the time bank, offering help in various capacities, from practical tasks like gardening or repairs to more personal support such as companionship or tutoring

Key Characteristics: The "Do-Gooder" is driven by the desire to help others and make a meaningful impact. This person frequently offers their time without expecting anything in return, seeing their participation as an opportunity to foster social good. They thrive on the fulfilment of giving back and may sometimes refuse to log their hours, viewing their contributions as voluntary acts rather than services that require compensation.

Challenges:

- May accumulate large numbers of unused time credits because they are reluctant to use them for personal benefit and often donate them
- Could feel uncomfortable accepting help, as they prefer to be in the role of the giver rather than the receiver
- May struggle with balancing their giving nature with personal needs, sometimes overextending themselves which might cause burnouts

Needs:

- Opportunities to track their donated time credits to a communal pot or to others in need, so they can see where their credits are being used so they can be encouraged to continue to give back
- Systems that recognise their altruism and burnout while encouraging them to accept support in return, fostering reciprocity rather than one-sided giving.

5.2. The Time-Rich

Motivation: Flexible schedule and desire to stay active

Background: Often retirees, part-time workers, people on benefits or between jobs who have ample free time

Role: Consistent contributor to the time bank, often available for various tasks that require a longer time commitment, such as caregiving, transportation, or event support. However, they might struggle with personal issues such as health or finances

Key Characteristics:

The "Time-Rich" individual has the luxury of offering their time frequently and reliably. They often have fewer responsibilities such as children or full-time work and are eager to use their

time to stay socially connected and active. Their contributions often support those who have less time due to other commitments, and they play a key role in maintaining the time bank's smooth operation by stepping in when others are unable to.

Challenges:

- Can feel underutilised or frustrated if the time bank doesn't provide enough opportunities for them to contribute towards. They may feel disconnected from the time bank's reciprocity, if they do not get the help they need
- They might be averse to technology and may need more face-to-face events and social interaction to be continuously motivated

Needs:

- Consistent opportunities for engagement so they feel their time is valued and utilised
- Better integration with the time banking system and mainstream organisations to help offer support in other ways such as financial and personal

5.3. The Community-Seeker

Motivation: Desire for connection and social belonging

Background: Individuals who may be new to an area, socially isolated, or looking for meaningful connections with others. This includes newcomers, youngsters, retirees seeking new friendships, or those recovering from personal hardships

Role: Both a contributor and receiver, but primarily motivated by the social aspects of time banking rather than the transactional nature of time exchanges

Key Characteristics: The "Community-Seeker" is drawn to time banking because it offers an opportunity to build relationships and feel part of a supportive network. This archetype often values the interactions and friendships formed through the time bank more than the practical services they receive or offer. They are often found at time bank events, social gatherings, and group activities, using these spaces to connect and integrate into the community.

Challenges:

- May struggle with asking for help, as they are focused on building relationships and may not want to be seen as needy
- Might prioritise social interactions over tracking or accounting for time exchanges, leading to underreported hours
- Could feel disconnected if time bank activities become too transactional or service-oriented without enough community-building activities

Needs:

- More opportunities for social engagement and community events within the time bank, which align with their goal of fostering connections.
- Encouragement to participate in both giving and receiving services, ensuring they feel fully integrated into the reciprocal nature of the time bank.

7. Service Blueprints for Time Banking

A service blueprint outlines the entire service experience, including all touchpoints (the interactions between people and a service, processes, people, technology, and interactions). Service blueprints help visualise how a “service” operates from both the frontstage (what a user, customer, etc. experiences) and backstage (what happens behind the scenes by those operating, delivering or managing the service).

Although service blueprints are typically used to outline the processes and structures of traditional services, we consider them useful as a way of outlining the interactions and flows of information and tasks for community based initiatives like time banks.

We have created service blueprints from the perspectives of both brokers and members, focusing on two different types of blueprints:

1. Blueprints that convey the typical experience of time banking currently.
2. Blueprints that convey proposed technological touchpoints and potential improvements using novel blockchain-based digital platforms.

TIMEBANK MEMBER EXPERIENCE BLUEPRINT

JOURNEY STEPS	RECRUITMENT	ONBOARDING	POSTING (I NEED HELP / I CAN HELP)	COORDINATION	EXCHANGE	TIME TRACKING AND RECORDING	FEEDBACK/ ISSUES AND RESOLUTIONS
TOUCHPOINTS	<ul style="list-style-type: none"> Word of mouth Social media Community meet ups Information via leaflets & posters in community Time bank website 	Profile page: <ul style="list-style-type: none"> Completed via website or Brokers forms (paper based) 	<ul style="list-style-type: none"> Time bank website Broker Other existing members Community notice board 	<ul style="list-style-type: none"> Broker Time bank website Other members 	<ul style="list-style-type: none"> Members home Public space 	<ul style="list-style-type: none"> Time bank website Broker members 	<ul style="list-style-type: none"> Time bank website/ feedback forms Social/word of mouth/ conversations between members mediated by broker
ACTIONS	<ul style="list-style-type: none"> Non-member meets Broker Start sign up process on website/forms Place an enquiry to join Time Bank Receive automated email Attend a time bank orientation session 	PROVIDE INFORMATION: <ul style="list-style-type: none"> DOB Name Address Profile Photo List of skill sets/ interests 	<ul style="list-style-type: none"> Member searches for "Tasks" they can do to help others Member requests "tasks" they would like help with Member uses a Database search functionality Member speaks directly to the broker via meet up or text/phone – Broker will match you up with someone... Member speaks directly to other community members at monthly meet ups set up by broker WhatsApp/messenger group chats will be used Email / TEXT notifications 	<ul style="list-style-type: none"> Member contacts individual offering to help them with their request, coordinate details directly with them Member receives messages regarding their request for help WhatsApp/ other messaging services could be used here Meet in person with TB member & broker to establish initial trust and work out logistics Receive website notifications Receive email / TEXT notifications. WhatsApp group chats could be used time bank broker meditates. 	"Offline"	<ul style="list-style-type: none"> Member logs their own hours given and earned - into the website and or is kept as Mental/ written note Broker records it for you (via website or paper based) 	<ul style="list-style-type: none"> Resolve disputes or issues. Provide and receive feedback Written comments online Offline comments, directly to the person you helped / through the broker
FRONT STAGE	<ul style="list-style-type: none"> Non-member meets Time broker/leader before they sign up... Non-Member visits the time bank website, fills out registration forms, attends an orientation session. Meets existing members via orientation session and learns more about the time bank 	<ul style="list-style-type: none"> New Member logs in, navigates to profile page, fills out information on skills and availability. Broker / admin team fill in form with new member 	<ul style="list-style-type: none"> Member creates a "post" describing what they need help with – via website Member uses search functionality to find jobs/offers people could do for them – via website Call / speak to broker to describe what they want to do/ need help with goes to community meet up (once a month) and asks for help/ can help directly to members 	<ul style="list-style-type: none"> Member or broker send messages/emails, makes phone calls to coordinate task details. 	"Offline"	<ul style="list-style-type: none"> Member logs into the system, records hours received and spent OR Member informs broker of hours Broker records hours spent and received 	<ul style="list-style-type: none"> Meets with broker and individual to discuss issue / leave review
BACK STAGE	<ul style="list-style-type: none"> Time bank broker / admin team reviews application Processes / sets up member profile Sends welcome email with login details etc 	<ul style="list-style-type: none"> Specific checks performed for specific tasks that someone says they can do Profile data is stored and made searchable in the time bank database. Criminal record checks, proof of address etc Vetting process 	<ul style="list-style-type: none"> System filters and displays relevant jobs people are willing to do in the community based on the inputted preferences Broker contacts members to arrange pairing Member contacts the person directly 	<ul style="list-style-type: none"> Messaging system (WhatsApp) facilitates information exchange. Broker mediates information exchange Broker logs this on the system (online or paper) 	"Offline"	<ul style="list-style-type: none"> Broker validates the exchange System updates member's time balance, broker can generate a report Broker updates members time balances and generates report 	<ul style="list-style-type: none"> Broker makes a mental note and puts it in the system Member acts on the feedback/ review
SUPPORT NETWORK	<ul style="list-style-type: none"> Broker Members Time bank UK 	<ul style="list-style-type: none"> Broker 	<ul style="list-style-type: none"> Broker Members 	<ul style="list-style-type: none"> Broker Members 	<ul style="list-style-type: none"> Broker Members 	<ul style="list-style-type: none"> Broker Members 	<ul style="list-style-type: none"> Broker Members Time bank UK

BROKER EXPERIENCE BLUEPRINT

JOURNEY STEPS	RECRUITMENT	ON BOARDING	POSTING (I NEED HELP / I CAN HELP)	COORDINATION	EXCHANGE	TIME TRACKING AND RECORDING	FEEDBACK/ ISSUES AND RESOLUTIONS
TOUCHPOINTS	<ul style="list-style-type: none"> Conducting outreach through... • Word of mouth • Social media • Community meetup • Initial information via leaflet & or posters • Time Bank Website 	<ul style="list-style-type: none"> Broker may support non-members (especially more elderly people, with on boarding and profile set up) • Profile page/forms • Website • Paper based - notes/ diary 	<ul style="list-style-type: none"> • Time bank website • Existing members • A Community notice board • Note-book/diary • Contacts • Group chats via WhatsApp/Messenger 	<ul style="list-style-type: none"> • Time bank website • Messaging / Phone • Members 	<ul style="list-style-type: none"> If Broker is present • Member's home • Public space 	<ul style="list-style-type: none"> • Time bank website • Paper based systems • Members 	<ul style="list-style-type: none"> • Time bank website - feedback forms • Social/ word of mouth, conversation with the people involved
ACTIONS	<ul style="list-style-type: none"> • Supports Non-Member with sign up process on website • Reviews enquiry • Lead a time bank orientation session • Initial meeting with Non-Member 	<ul style="list-style-type: none"> • Takes notes of information provided either directly on the website, or on paper forms/ diary notes • Checks non-member has given all necessary information • May directly fill out profile page for them 	<ul style="list-style-type: none"> • Broker may search for tasks/jobs via database (excel, or diary) or on the TB website for the members looking to give or earn time • Broker speaks directly to the members and finds someone to match them with • Broker uses a database/search functionality • Email / text notifications /WhatsApp group chats 	<ul style="list-style-type: none"> • Broker helps to coordinate details between the 2 members • WhatsApp/ other messaging group chats may be used • Broker meets with the 2 members to establish initial trust and work out logistics 	<ul style="list-style-type: none"> • Offline • Broker may attend/ check in to see if everything is going to plan 	<ul style="list-style-type: none"> • Broker takes mental note on what time has been exchanged • Broker records time exchanges for members (via website or paper based) 	<ul style="list-style-type: none"> • Resolve disputes or issues raised by members • Provide and receive feedback on members • Written comments online • Offline comments, directly to the members
FRONT STAGE	<ul style="list-style-type: none"> • Broker meets with Non-Member before they sign up • Broker guides Non-Member through time bank website, fills out registration forms, attends an orientation session • Introduces Non-Member to current members 	<ul style="list-style-type: none"> • Broker supports New Member to log in, navigates to profile page, fills out information on skills and availability • Broker / admin team fill in form with new member 	<ul style="list-style-type: none"> • Broker may support member to search for a job (they can do/ receive) via Website • Broker speaks directly to members and pairs them with best suite • Broker hosts/goes to community meet up (once a month) and asks members to put forward ideas/ suggestions of jobs people could/ want to do 	<ul style="list-style-type: none"> • Broker sends messages/emails, makes phone calls/ organises meet up to coordinate task details. 	<ul style="list-style-type: none"> • Offline 	<ul style="list-style-type: none"> • Broker is updated on exchanges from members • Broker logs hours in diary (paper based) • Broker logs hours on website • Broker logs monthly total of time exchanged and creates a report 	<ul style="list-style-type: none"> • Broker meets with members to discuss issue / leave review
BACK STAGE	<ul style="list-style-type: none"> • Time bank broker / admin team reviews applications received from non-members • Processes / sets up member profile • Sends welcome email with login details etc 	<ul style="list-style-type: none"> • Specific checks performed for specific tasks that someone says they can do • Profile data is stored and made searchable in the time bank database • criminal record checks, proof of address etc • vetting process 	<ul style="list-style-type: none"> • System in theory filters and displays relevant jobs people are willing to do in the community based on the inputted preferences • Broker uses their knowledge based on the relationships they have formed to pair/ match members who could support on another • Broker contacts members to arrange pairing 	<ul style="list-style-type: none"> • Messaging systems/platforms facilitate information exchange • Broker logs coordination details on website/ paper-based notes 	<ul style="list-style-type: none"> • Offline • Broker logs exchange on the system (online or paper) 	<ul style="list-style-type: none"> • Broker validates the exchanges • System / Broker updates member's time balance, broker can generate a report • Broker updates members time balances and generates report 	<ul style="list-style-type: none"> • Broker makes a mental note and puts it in the system • Member acts on the feedback/ review
SUPPORT NETWORK	<ul style="list-style-type: none"> • Time bank UK • Other TB staff • Community network 	<ul style="list-style-type: none"> • Members • Time bank UK 	<ul style="list-style-type: none"> • Members 	<ul style="list-style-type: none"> • Members • Admin team/ Time Bank staff 	<ul style="list-style-type: none"> • Members 	<ul style="list-style-type: none"> • Members • Time bank UK 	<ul style="list-style-type: none"> • Members • Time bank UK

TIME BANK MEMBER EXPERIENCE BLUEPRINT- THROUGH APP

JOURNEY STEPS	RECRUITMENT	ON BOARDING	POSTING (I NEED HELP / I CAN HELP)	COORDINATION	EXCHANGE	TIME TRACKING AND RECORDING	FEEDBACK/ ISSUES AND RESOLUTIONS
TOUCHPOINTS	<ul style="list-style-type: none"> Initial information via leaflet & or posters, word of mouth Social media / AD's App Store Time bank app Website/web search 	<ul style="list-style-type: none"> App Profile page 	<ul style="list-style-type: none"> App exchanges page 	<ul style="list-style-type: none"> App coordinate page (chat function) 	<ul style="list-style-type: none"> App - my exchanges Offline 	<ul style="list-style-type: none"> App - "my time" 	<ul style="list-style-type: none"> App-feedback
ACTIONS	<ul style="list-style-type: none"> Enters app store and downloads time bank app Sign up with an email or social media account (meta merging) 	<ul style="list-style-type: none"> Upload ID and verify identity. Set up user profile, including skills and interests. Agree to terms and conditions. 	<ul style="list-style-type: none"> Search and filter tools in the app. setting parameters Browse or search for available time bank roles Apply for a job or accept an offer (I can help) Post a new job or offer service (I need help) 	<ul style="list-style-type: none"> Still coordinate with broker for logistics and support Communicate with member to arrange job details. Schedule and confirm job timings via app chat functionality or external messaging service like WhatsApp 	<ul style="list-style-type: none"> Confirm starting of job Confirm job completion in the app 	<ul style="list-style-type: none"> Record time spent on a job in the app Monitor accumulated time credits 	<ul style="list-style-type: none"> Provide feedback on the job or service received Report any issues or concerns
FRONT STAGE	<ul style="list-style-type: none"> Non-Member visits App Store Reads description and watches promotional materials (videos, infographics) Downloads the time bank app Begins sign up process 	<ul style="list-style-type: none"> User interface for ID upload and verification status tracking. Guided setup - for profile completion Notifications and reminders for incomplete profiles. Onboarding animation/video 	<ul style="list-style-type: none"> Notifications for job matches and offers Job posting and application updates User selects "Offer a service" from the dashboard User chooses a category from a list (e.g., Tutoring, Gardening, Transportation) User writes a brief description of the service they are offering. User sets the availability (dates, times) and location (if applicable) User selects "Submit" to publish the service offer User can edit or delete the offer from their profile or dashboard likewise for needing a service 	<ul style="list-style-type: none"> Member or broker send messages/emails, makes phone calls to coordinate task details. In-app messaging or communication platform such as WhatsApp Calendar integration for scheduling Push notifications and reminders for scheduled jobs 	<ul style="list-style-type: none"> Member logs interactions in app Time Description 	<ul style="list-style-type: none"> Time recording feature integrated with the app wallet/purse Dashboard for tracking time credits Transaction history display 	<ul style="list-style-type: none"> Feedback submission form with rating system User interface for rating and feedback Issue reporting interface with ticketing system Voting interface for community decisions community voting on the time pot
BACK STAGE	<ul style="list-style-type: none"> Enters app and begins login/ sign up process Employee review and approval process for new sign-ups 	<ul style="list-style-type: none"> Automated ID verification process using blockchain for data security Profile data storage and categorisation. 	<ul style="list-style-type: none"> Job matching algorithm based on preferences and availability Job posting approval process if necessary. 	<ul style="list-style-type: none"> Message encryption and storage for privacy Monitoring of job coordination for any issues or delays Time tracking 	<ul style="list-style-type: none"> Blockchain to record time transactions Automated confirmation process Meet and perform the job (offline) 	<ul style="list-style-type: none"> Blockchain ledger for time credit transactions Automated time credit updates 	<ul style="list-style-type: none"> Feedback and issue monitoring by support team Insurance and liability checks
SUPPORT NETWORK	<ul style="list-style-type: none"> Broker Time bank UK 	<ul style="list-style-type: none"> Broker 	<ul style="list-style-type: none"> Broker Other members 	<ul style="list-style-type: none"> Broker Other members 	<ul style="list-style-type: none"> Broker Other members 	<ul style="list-style-type: none"> Broker Other members 	<ul style="list-style-type: none"> Broker Other members Time bank UK
CONSIDERATIONS TO USE IN APP	<ul style="list-style-type: none"> Marketing and outreach Ads/ campaigns Analytics tools to track sign-up trends. Content management system (CMS) for updating promotional materials 	<ul style="list-style-type: none"> Blockchain integration for secure ID storage Compliance and legal support for identity verification User support for troubleshooting during onboarding 	<ul style="list-style-type: none"> Blockchain-based job transaction ledger Cloud storage for job postings and user interactions Support team to handle job posting issues 	<ul style="list-style-type: none"> Server infrastructure for communication tools Customer service for communication-related issues Data protection mechanisms for user interactions 	<ul style="list-style-type: none"> Secure server for real-time updates and data processing Blockchain support for recording exchanges Support team for handling disputes or transaction issues 	<ul style="list-style-type: none"> Secure storage of time transaction records User analytics for monitoring time credit trends Support for time tracking issues or discrepancies 	<ul style="list-style-type: none"> Customer support for handling feedback and resolving issues Community management for overseeing voting processes

BROKER EXPERIENCE BLUEPRINT- THROUGH APP

JOURNEY STEPS	RECRUITMENT (Broker involvement will remain high at this stage)	ON BOARDING (Broker involvement will remain high at this stage)	POSTING (I NEED HELP / I CAN HELP) (App offloads pressures of Broker)	COORDINATION (App offloads pressures of Broker)	EXCHANGE (App offloads pressures of Broker)	TIME TRACKING AND RECORDING (App offloads pressures of Broker)	FEEDBACK/ ISSUES AND RESOLUTIONS (Broker involvement will remain high at this stage)
TOUCHPOINTS	<ul style="list-style-type: none"> Conducting outreach through... <ul style="list-style-type: none"> Word of mouth Social media Community meetup Initial information via leaflet & or posters Time Bank app 	<ul style="list-style-type: none"> Broker may support non-members (especially more elderly people, with onboarding and profile set up) profile page/forms App (paper based -notes/ diary) 	<ul style="list-style-type: none"> Broker could approve postings on app 	<ul style="list-style-type: none"> Time bank app Members Broker matches or approves matches 	<ul style="list-style-type: none"> Member's home, public space, or virtual meeting (e.g., Zoom) 	<ul style="list-style-type: none"> Time bank app Member 	<ul style="list-style-type: none"> Member voting Time bank website - feedback forms. Social/ word of mouth, conversation with the people involved Recording reviews
ACTIONS	<ul style="list-style-type: none"> Supports non-member with download and sign-up process on app Initial meeting with non-member Lead a time bank orientation session 	<ul style="list-style-type: none"> Takes notes of information provided either directly on the app, or on paper forms/ diary notes Checks non-member has given all necessary information ay directly fill out profile page for them (if they struggle with tech) 	<ul style="list-style-type: none"> Members navigate app to post job needs and offers Broker may still be around to assist, but this role is reduced due to app function 	<ul style="list-style-type: none"> Broker helps to coordinate details between the 2 members via WhatsApp or TB sessions... 	<ul style="list-style-type: none"> Offline broker may attend/ check in to see if everything is going to plan 	<ul style="list-style-type: none"> Broker may be able to view/ review time recordings via a broker login 	<ul style="list-style-type: none"> Resolve disputes or issues between members and mediate discussions Provide feedback
FRONT STAGE	<ul style="list-style-type: none"> Organising and attending local events to raise awareness of the time bank Creating online campaigns (social media, newsletters) to attract new users, Orientation meeting with non-member Direct non-members, to app store Broker guides non-member through authentication process Introduces non-member to current members 	<ul style="list-style-type: none"> Assisting new users with signing up/ logging in and uploading their ID information, filling out info on skills and availability 	<ul style="list-style-type: none"> Monitoring job postings to ensure alignment with community guidelines. Offering support for users encountering difficulties with job posting or searching. 	<ul style="list-style-type: none"> Assisting members in setting up and coordinating job details between time givers and receivers. Broker may support communication between users via in person reminders and updates. 	<ul style="list-style-type: none"> Mediating disputes during the exchange if informed Offline 	<ul style="list-style-type: none"> Supporting members in tracking their time through the app and answering any queries about time balances. 	<ul style="list-style-type: none"> Collecting feedback from users on job experiences, app usability, and time bank operations. Addressing user-reported issues promptly and ensuring resolution. Facilitating community voting on the use of the collective time pot via blockchain voting.
BACK STAGE	<ul style="list-style-type: none"> Marketing and outreach Ads/ campaigns Collaborating with marketing and outreach teams to develop recruitment strategies. Employee review and approval process for new sign-ups. fills out registration forms on time bank app 	<ul style="list-style-type: none"> Automated ID verification process using blockchain for data security. Profile data storage and categorisation. Verification of user ID documents uploaded during registration (automated via blockchain-based identity verification systems). Broker checks over this 	<ul style="list-style-type: none"> Reviewing flagged posts (automated and manual). Managing an algorithm for job-posting matching based on user preferences. 	<ul style="list-style-type: none"> Monitoring communication issues or disputes. 	<ul style="list-style-type: none"> Offline 	<ul style="list-style-type: none"> Verifying time transaction (based on blockchain records). broker approves logged in or verbal exchange Managing and maintaining blockchain-based time wallets. Generating reports on time transactions of the community 	<ul style="list-style-type: none"> Managing issue escalations and ensuring responses are timely. Mediates discussions with members based on in app reviews on each other
SUPPORT NETWORK	<ul style="list-style-type: none"> Time bank UK TB staff Community network 	<ul style="list-style-type: none"> TB Staff Time bank UK 	<ul style="list-style-type: none"> Members 	<ul style="list-style-type: none"> Members Admin team/ Time Bank staff 	<ul style="list-style-type: none"> Members 	<ul style="list-style-type: none"> Members Time bank UK 	<ul style="list-style-type: none"> Members Time bank UK
CONSIDERATIONS TO USE IN APP	<ul style="list-style-type: none"> Analytics tools to track sign-up trends. Content management system (CMS) for updating promotional materials Integration with community outreach programs and partnerships with local organisations 	<ul style="list-style-type: none"> Blockchain integration for secure ID storage. Compliance and legal support for identity verification. User support for troubleshooting during onboarding. Blockchain-powered KYC (Know Your Customer) 	<ul style="list-style-type: none"> Blockchain used to securely store job postings, ensuring no tampering with data. User interface that supports filtering of posts according to skills and preferences. 	<ul style="list-style-type: none"> Blockchain ensuring the security and privacy of communication between users. Job coordination tools for scheduling and notifications. 	<ul style="list-style-type: none"> Blockchain ensures transparency and immutability of time exchanges. Escalation pathways for dispute resolution supported by AI or human moderators. 	<ul style="list-style-type: none"> Blockchain ledger ensures an immutable record of all time transactions Developers to ensure accuracy in wallet calculations and user-facing information. 	<ul style="list-style-type: none"> Blockchain-powered voting system to ensure transparent, democratic decisions on community time pot spending. Tools for automating feedback collection and data analysis.