OIX OPEN IDENTITY EXCHANGE

FACE-TO-FACE IDENTITY PROOFING TO HELP PEOPLE OBTAIN AN ASSURED DIGITAL IDENTITY

The findings of a Discovery Project

By Rob Laurence (Innovate Identity)
December 2016

Participants

TIMPSON
Great Service by Great People

SAFRAN

GDS

SNOOK

innovate identity
experts in id

Executive summary

GOV.UK Verify allows you to prove who you are online and access government services by choosing from a list of certified companies to verify your identity. Obtaining a GOV.UK Verify digital identity with a certified company - otherwise known as an identity provider - is an online experience. By providing evidence of our identity to an identity provider online, our identity can be established to various levels of assurance by comparing this evidence to digital "footprints" and representations of that evidence held in government and private-sector databases.

However, for many reasons, confirming evidence of our identity online is not always possible. For instance, we may not have established sufficient digital footprints or lack recent evidence of our activity, for our identity to be satisfactorily assured.

In these cases, we need an alternative approach.

This project set out to discover if people who were unable to achieve a satisfactory level of assurance[1] online to access digital government services, would be willing to visit a high-street shop to achieve this level with the support of shop colleagues in a face-to-face environment.

The research focused on people's views and expectations of traveling to a high-street shop, presenting their passport and driving licence and having a photo taken as part of an identity proofing process. Two different shop environments were used for the research: the first a bustling Tesco hypermarket and the second a quiet, purpose-designed studio.

Two rounds of user research were conducted. Findings from the first round were used to change the environment and modify the user journey prior to the second round taking place.

The conclusion reached from the research is that users, whilst recognising their likely frustration and annoyance at not being able to complete the identity proofing process online, would be willing to participate in a face-to-face identity-proofing process.

Users were generally comfortable with visiting a high-street shop, finding it quick and convenient.

Users had trust in the service, establishing this primarily from association with the GOV.UK brand, supported by the involvement of a long-established high-street "name" in Timpson.

Users were happy with the concept of creating an ArkHive account as a way of sharing access to documents with their identity provider.

However, users expressed concerns about their privacy within a shop, security around handling their documents and use of public computers. They were, however, relatively

---

[1] For the purposes of this project, this was Level of Assurance 2.

comfortable with the screening provided and the fact that at no stage were their documents out of their sight.

The project also considered the role of the shop (Timpson) colleague in delivering the service. Without doubt, the colleague was pivotal in ensuring a positive user experience, explaining and guiding the user through the process and helping their understanding and, so, building confidence.

Introduction

The project set out to test the hypothesis that people who cannot achieve a Level of Assurance 2 (LoA2) for a digital identity with a certified UK identity provider using the GOV.UK Verify online process, can achieve this level with the support of a high-street service in a face-to-face environment.

The project involved a collaboration between Safran Morpho, Timpson Group and the Government Digital Service (GDS). Snook provided user journey design expertise and undertook the user research. Innovate Identity provided project management services.

The project was conducted through a series of workshops and user research sessions in two high-street shops, the ArkHive Identity Shop and a Max Spielmann photo shop, both part of Timpson Group.

The project investigated users' perceptions and expectations around presenting a driving licence and passport in a face-to-face situation and having an ID photo taken as part of the process to obtain a GOV.UK Verify digital identity.

Alongside the user experience research, two other threads were explored.

The first was the shop colleague's experience. This considered the interaction between the shop colleague and the user, what was required of the colleague to put the user "at ease", and what support was required for the colleague in his role.

The second was the data and process flows. This identified the data flows and process necessary within the user journey; the handover point from the identity provider to the high-street shop, and back again, and the role of the user in this. Privacy and security aspects were considered in terms of the data to be retained by the shop and for what period, and the potential risks to the user and the GOV.UK Verify service.

The need for face-to-face identity proofing

GOV.UK Verify is an online experience for online services. The user is able to prove their identity online with an identity provider and use a digital representation of this, provided by the identity provider, to subsequently access online services from central government.

However, there will inevitably be situations where an identity provider is unable to prove a user's identity online to a sufficient level of assurance to access government services. Firstly, the user may not have a wide enough digital footprint for an identity provider to provide a Level of Assurance 2 (required to access government services). Secondly, the user may lack confidence in completing the online verification process.

In both scenarios, a face-to-face service could enable the user to successfully prove their identity to the required level of assurance and help them "get online".

A passport or photocard driving licence, presented in person, could be verified using an appropriate document scanner. The photo image within the document could be compared to an ID photo of the user captured at that point in time. Verifying these documents in a face-to-face environment, together with the anti-impersonation check, would give a higher level of assurance in the identity proofing process when compared to presenting such document information online. [2] This could reduce the number of checks that an identity provider would need to perform to establish the appropriate level of assurance, thereby addressing some of the issues that may be preventing the user completing the identification process online.

User research

Objectives and methodology

A qualitative research project was undertaken to discover whether users would be willing to visit a high-street location and present documents that would enable their identity to be proven, as part of a process to obtain a GOV.UK Verify digital identity with an identity provider.

Of interest were users' views and expectations on starting the journey online with an identity provider, stepping out into a face-to-face channel before returning to the identity provider to complete the journey online.

Users' views were also sought on the various brands involved, including Timpson/ArkHive/Max Spielmann and the identity provider, SecureIdentity; their comfort and experience with visiting high-street shops, presenting valued documents and having their photo taken; and the convenience of these locations.

---

[2] See https://www.gov.uk/government/publications/identity-proofing-and-verification-of-an-individual for further information.
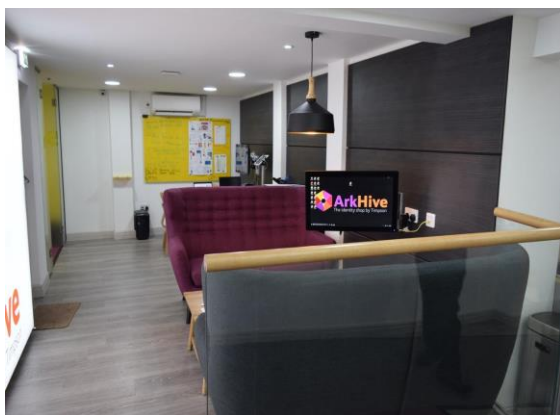
The research also investigated the shop colleagues' experiences and their views and comfort with their role in the user journey.

The research was conducted in two locations. The first location was the Timpson ArkHive identity shop in Henley-on-Thames. This is a concept shop with a relaxed and modern ambience, specialising as the UK's first identity shop.

The second location was a Max Spielmann concession within a Tesco superstore in Newbury.

> **Colleagues not Employees**
> Timpson has been in business since 1865 and its success in the main is due to its "colleagues" and unique "upside down management" approach. Those colleagues who are serving customers are regarded as the most important; and for the others who work behind the scene, it's their job to serve their shop colleagues.

Timpson ArkHive Identity Shop

Max Spielmann Concession within Tesco

Two rounds of research were conducted in each location with a total of 16 participants. The participants were selected based on a broad age and socio-economic range, mobile and Internet-savvy, living within a 20-minute drive-time of the shop location. Half of the participants were selected as having a need to claim government benefits.

Changes were applied to the user journey and environment between the two rounds, to include feedback from users in the preceding round that had an impact on their perceptions (for example, sitting opposite or alongside a Timpson colleague).

User journey

By way of an introduction to the research, participants received a phone call from a researcher, giving them background information and introducing them to GOV.UK Verify. This was followed up with an email with instructions on what to do next, and included a link to the GOV.UK Verify introduction video, for further information. The participants then came to the shop and undertook the service process. Following this, they were interviewed about their experience.

The email that was sent to each participant is set out below.

Sorry we have not been able to complete your GOV.UK Verify registration with SecureIdentity.

We undertake a range of checks to validate your details to ensure that no-one is attempting to impersonate you online. This is for your safety so you can interact securely with a growing range of online Government services. There could be a number of reasons why we have not been able to successfully complete the process such as:

- We could not match your details with some external records.

- You were not able to provide details of both your passport and driving licence.

- One or more incorrect answers were provided.

By providing a physical copy of your passport or driving licence we can reduce the number of other checks we need to perform and therefore increase the chance of successfully completing your registration. Your current registration details have been securely stored for you to use in the future.

What should I do next?
As you have indicated that you possess a valid UK passport and driving licence you can take these documents to your nearest ArkHive provider, so they can be authenticated through our SecureIdentity approved document scanning service using our secure equipment. The approved electronic copies of these documents will be stored securely and used as part of your registration process when you return to SecureIdentity. Details of how to resume your registration are given at the bottom of this email.

What is ArkHive?
ArkHive is a service that provides a safe and secure online storage facility for you to upload and share your documents from.
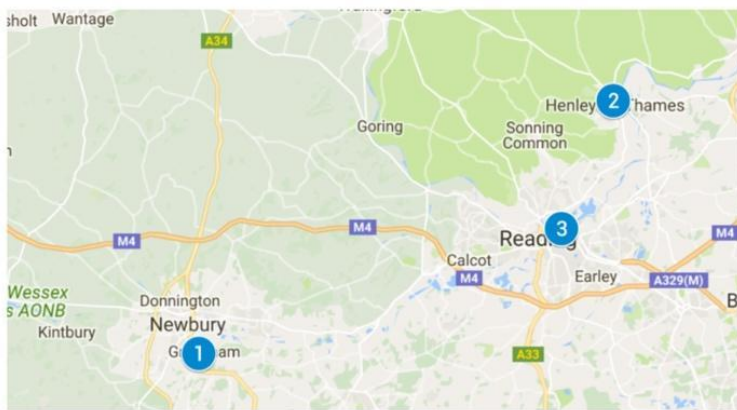
What is an ArkHive Account?
An ArkHive Account allows you to store, access and share verified digital copies of your identity documents and information online to help prove your identity. You can be safe in the knowledge that you are the only one with access. You have complete control over who you share your information with, as you will create your own personal login details.

What will happen in-store?
The SecureIdentity approved document scanning service will begin with setting up an ArkHive account in store. You will then be asked to provide your identification documents, these will be scanned and uploaded into your ArkHive account. You will be required to have a photo taken so that through facial recognition technology it can be proved that you are the same person in store as is being presented in your identification documents. When all your documents are uploaded to your ArkHive account you can leave the store and wait to receive an email that will inform you if have been successfully verified or not.

Please proceed to your nearest ArkHive provider. Your nearest stores are:

1. Max Spielmann Photo
Pinchington Lane
Newbury
RG14 7HB

2. ArkHive - The identity shop by Timpson
24 Bell Street
Henley-on-Thames
RG9 2BG

3.Timpson Ltd
Shoe repair shop
Tesco/Napier Rd
RG1 8DF

Please note that for research purposes we have already asked you to come to a specific store at a specific time. If you have any questions about this research process please contact charley@wearesnook.com. Please don't forget to bring a valid passport and driving licence with you to the store.

Kind regards,
SecureIdentity

secureidentity
by Morpho, the world leader in government ID

Please keep this email. It contains important information you will need in the future about your SecureIdentity.

To continue your registration:

Follow the quick steps below or see our detailed guide in our help centre.

- Choose the Government service you need to access here gov.uk/verify

- Click 'I've used Verify before'

- Select 'SecureIdentity'

- Click 'Register now' at the bottom of the page

- Click the 'Resume' tab at the left hand side of the page

- Enter your email address

- Enter your password

- Enter the one-time email security code

- Continue registration

You can find answers and help by:
Visiting the help centre at https://secureidentity.co.uk/help. Call us on **0330 024 0181** if you prefer to speak to someone. We are open: Monday to Friday: **8am to 10pm**, Saturday and Sunday: **8am to 5pm**.

Email reference code: 012674H7KF
Legal information   EM-PAU V1.0 © 2016

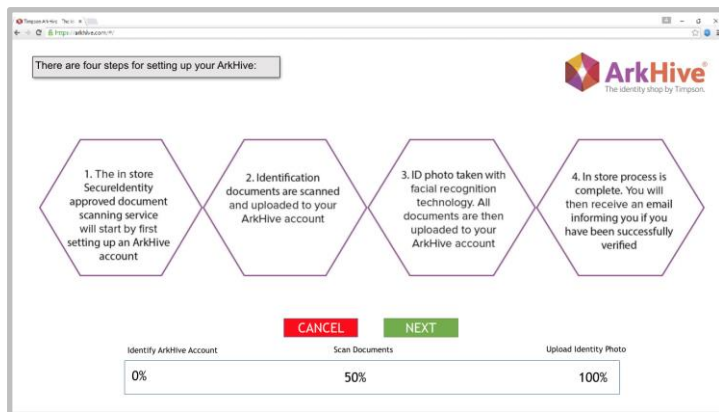This email has been sent from Secure Identity.

Email from SecureIdentity.

On arrival at the shop, each participant was asked to request the identity service. A Timpson colleague greeted them, made them feel comfortable and explained the process.
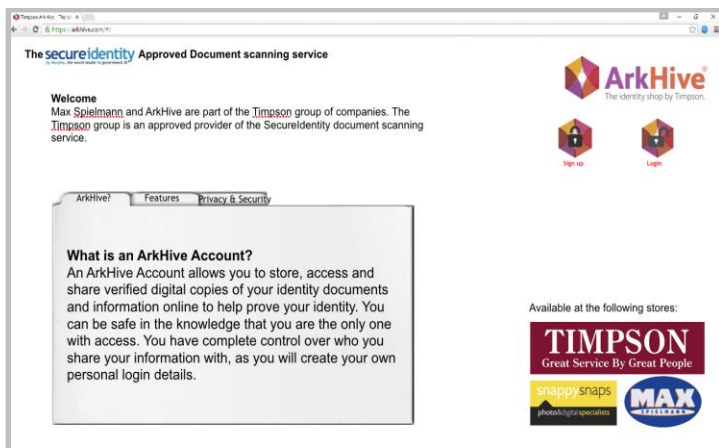
The steps in the process were as follows:
1. The participant was asked to set up an ArkHive account, which would be used to hold scanned copies of their documents and ID photo.
2. The colleague scanned the participant's passport and driving licence and uploaded each to the participant's ArkHive account.
3. The colleague took an ID photo and uploaded this to the ArkHive account.
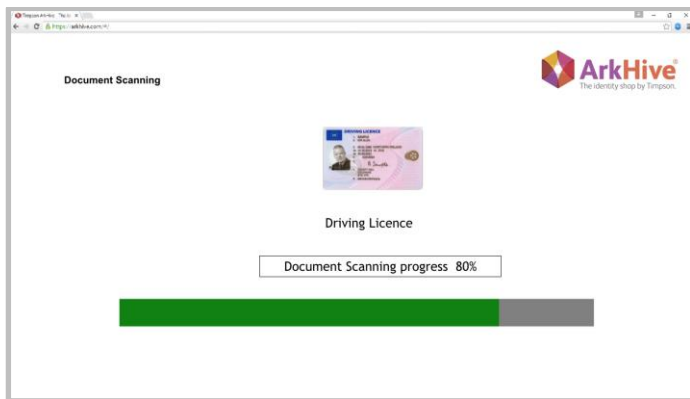4. The colleague explained what happens next, once the participant leaves the shop.

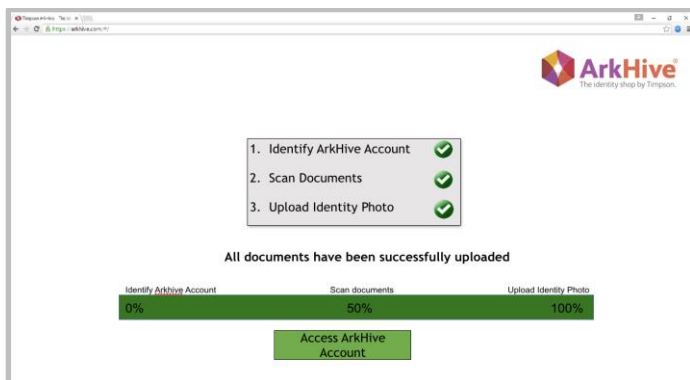The key pages of the journey were as follows.

First page sets out the steps in the journey.

ArkHive is explained and the participant creates their account.

Each document and the ID photo is uploaded in the presence of the participant.

Confirmation is given that all documents have been successfully uploaded.

The insight gained from the first round of user research was used to change aspects of the process and shop environment ahead of the second round. For example, the user was presented with a leaflet in Round 2 that explained ArkHive and how it would be used.

ArkHive Leaflet

Findings

Following the journey with the Timpson colleague, each participant was interviewed.

Overall, 13 of the 16 participants felt comfortable with the service they had received. They were pleased that the service was quicker than expected and that they didn't have to part with their identification documents. Having their photo taken, though, created a little anxiety for some. Trust in the service was established though the involvement of government and the GOV.UK brand.

The full findings of the participants' feelings, perceptions and views at various stages of the journey are set out in Appendix A.

It was clear from the research that the role of the shop colleague was crucial to the overall experience of the participants and their feelings about the face-to-face service. Changes were introduced between the two rounds to reflect a less formal approach; for example, letting the participant sit alongside the colleague rather than opposite, to enable them to view the screen pages together. Similarly, additional supporting information was provided on screen which could be shared with the participant, enabling the participant to see and understand what was happening at each stage. Small changes appeared to create a much more relaxed atmosphere and a better overall experience.

The role of the colleague in the user journey, their interaction with participants, the support and aids provided are discussed in Appendix B.

The importance of the shop environment was another key factor to understand. This broke down into two aspects: location and privacy within the shop.

Participants were very happy with the location of the shops, being convenient to reach and allowing them to plan other shopping activities nearby. This was a pleasant surprise to them, most expecting a more formal and "official" office environment.

Privacy was an important matter for the participants. They had concerns about being overlooked and overheard, and the risk associated with using a computer that was for general use. Changes were introduced for Round 2 to create a more distinct, screened area, and remove the need to use a computer in shop. These were generally well received, although a small number of participants thought the Max Spielmann shop was a little chaotic.

The participants' views on the two locations are set out in Appendix C.

Data and process flows

For the purposes of the user research, a hypothetical process was created as follows.

Step 1. The user journey began online with the user attempting to register for a GOV.UK Verify digital identity with an identity provider; in this project, SecureIdentity. The identity provider

was unable to verify the user's identity to the required level of assurance (LoA2). However, the user provided enough information for a user account to be created and personal details stored.

Step 2. An email was sent to the user by SecureIdentity. The email explained why SecureIdentity could not complete the GOV.UK Verify registration and what the user could do to overcome this, by taking their nominated documents (passport and driving licence) to a Timpson shop for verification.

Step 3. On arriving at the Timpson shop, an ArkHive account (ie personal digital vault) was created for the user. The user's documents were scanned, verified and certified prior to uploading to the ArkHive account, along with their ID photo. (Users regarded the ArkHive account as analogous with Dropbox[3]). Once uploaded, all images and data and reference to the user were wiped from the shop equipment.

Step 4. The email sent to the user (Step 2) also provided instructions on how to continue registration following the visit to the Timpson shop. The user was asked to log into SecureIdentity and resume the registration process, providing access to their ArkHive account to share the verified and certified documents.

Conclusions

The project set out to understand whether users who had not been able to obtain a digital identity with a certified UK identity provider using the GOV.UK Verify online process, would be willing to visit a high-street location to complete the identity proofing element of the process.

The conclusion reached is that users, whilst recognising their likely frustration and annoyance at not being able to complete the identity proofing process online, would be willing to visit a high-street location to complete the identity-proofing process.

The following findings, whilst supporting this conclusion, also highlight areas that could undermine user confidence and trust if not addressed.

1. High-street locations are convenient for users. They are easily accessible and users can combine a visit with other high-street activities. They are, however, less formal than, say, government offices, and a balance needs to be struck between this informality and the importance of the service being offered.

2. Privacy is very important. Users sensitivities around not letting documents out of sight, understanding what happens to their documents once scanned and ensuring they are screened from the public, need to be addressed. Users were wary about accessing their accounts on public computers.

---

[3] Dropbox is a file hosting service operated by Dropbox Inc.

3. The role of the Timpson colleague is important, building the confidence of the user in the service. However, complete user trust in the colleague should not be assumed and consideration needs to be given as to how this could be established.

4. User trust in the service is delivered through the involvement of government and the overarching GOV.UK brand. This trust is carried through to the identity provider and high-street shop by association.

Appendix A. Participants' views

Following the journey with the Timpson colleague, each participant was interviewed. The participants' feelings, perceptions and views at various stages of the journey are set out below.

Participants' feelings prior to visiting the high-street shop

Participants felt some annoyance at being required to come to a shop. Most participants said that they would have felt some level of annoyance when they were first told to go to a high-street shop to complete the rest of the digital identity proofing process. Participants commented that this is how many other similar online services work (eg banking), so it was not unexpected.

> *"Initially it would have been a pain, but I feel more comfortable doing it in a face-to-face environment. Although it is more hassle, this is the next logical step to be able to successfully verify your identity." – Gillian, 34*

Some participants were concerned as to why they had not been verified successfully online. It made them feel worried that there was something wrong with their identification documents.

> *"I was a bit worried that I was not verified online but was pleased I could just come into the store. Things can happen due to technical faults so I was happy that it could be rectified in store" – Nekeshia, 26*

Appointment and greeting

Users wanted appointment times. For the purpose of this research, the participants had specific times and dates to come to the shop, this led them to talk about having appointment times. Having an appointment time for the service is important to some participants as it makes them feel more reassured about the legitimacy of the service if someone is expecting them.

> *"Having an appointment option. So, then you can plan your day." – Gillian, 34*

Participants would want to come to the shop as soon as possible after failing online. Participants indicated that if they did not have an appointment, or if they were to make an appointment, they would want to come into a shop fairly quickly. Most would be in a rush to get their identity verified to complete the application or process that they initially set out to do.

> *"I would have come in fairly quickly. The setup time is quick so you want to get it sorted." – Alex, 34*

The service in the shop

Providing identification documents. 13 out of 16 participants stated that they were comfortable with providing identification documents in the shop. The two main reasons given were that (a) they were used to providing identification documents for this type of service and (b) their documents were in view at all times whilst in the shop.

> *"Absolutely fine, as a lot of places tend to ask for that sort of thing [providing identification documents] for a government service like this so I felt secure" – Emma, 41*

> *"Yes, my driving licence and passport, I have no issue sharing them as you use it for lots of different reasons. My passport I don't like to carry around and use as much, as I see it as more valuable and I see it as the core identity document." – Jon, 47*

The minority view:
> *"Having identification documents with me makes me nervous, I don't carry them with me so it is unusual that I have them out" – Robin, 47*

Expected more identification processes. Three participants thought they would have to go through an interview, sign something or possibly provide further identification like a birth certificate. The fact that only two identification documents were required was not seen as a negative. Participants were pleased that it was a quick and easy process and did not question the integrity of the identity verification process due to it being simple.

> *"I was surprised I didn't have to sign anything. Maybe even just being asked to provide my signature would be good. I am used to my signature being part of verification. Anything official, you have to sign it. After I walked away I was surprised that it had been so easy and I didn't even need to" – Hazel, 45*

It was important that participants could see their documents at all times. Participants have been through similar services to this before, such as being at a bank and having their identity verified. According to the participants, the two reasons that made this service better than other similar services were, firstly, they could always see their documents and, secondly, it was more of a collaborative process, working through the process together with the Timpson colleague. This was important as the participants believed they should be involved and know what is happening at all times, particularly when it is their identity documents and it is their identity that they are trying to verify.

> *"He only had it for 30 seconds. I was pleased because if you lose something like that it would be a disaster, so it was good that I could see what he was doing." – Emma, 41*

> *"Certainly so much easier than when I have had to do it in a bank. When I have gone through a bank there has always been a problem and they always take the documents away. Here they are scanned in front of you which is more reassuring."* – Helen, 61

Collaborative process builds security for the participant. Many participants, as already stated, were comforted by the fact they could see their documents at all times. In the first round of testing, it was suggested by some participants that they should also see the screen that the colleague was viewing at all times. The Timpson colleagues also felt that this was a barrier between them and the participants. An open, transparent and visual process makes it easier for the colleague to explain what is going on – all in front of the participant.

> *"I would have liked to see the documents being scanned. I guess to check that they are done properly and look as they do in real-life; just instinctive. The more I can see the process happening, the better. They are my personal documents after all."* – Beatrice, 36

In Round 2 of the research, the visual pages were modified to be participant facing. It was clear that this helped them to have a better understanding of the process and also helped facilitate the Timpson colleague's interaction with them.

> *"I feel better looking at it together so they can read it through as I explain"* – Paul, Timpson colleague

> *"I think it's useful, I think without the screen I could have followed it but quite often there was more information on screen. Equally, if you have something you can follow, if this is not your first language, that's useful."* – John, 36

Some participants felt more comfortable and secure in a shop than online. Four felt more comfortable when required to come to a shop to complete their identity verification process. They felt safer in a shop as they believed they had a better chance of verification and someone would be on-hand to ask questions or help if something did not work.

> *"I feel more secure having done it in store rather than purely online. It makes me feel better having the physical image being taken and being in a physical place"* - Robin, 47

It is also evident that participants wanted the option of being able to go to a shop for a full service: however, this is more for assisted digital reasons than security.

> *"I think it's easier if you come into a shop as you can ask questions and there is somebody there to answer them. I often have had worries online when it doesn't work and you don't know why and you have to figure it out yourself. You end up doing it three of four times and it locks it out or something stupid. I think a lot of people in my generation have not been brought up*

with computers and find it overwhelming and just doesn't understand it." –
Helen, 61

Uncomfortable due to a distrust in digital. The participants that were generally not technically-able and did not trust technology would not use the digital service from the beginning. They felt comfortable, though, bringing their identification documents to a shop. They were only uncomfortable with the documents subsequently being stored digitally.

"I guess from being a bit of a digital dinosaur I'm just a bit wary of sharing information, personal information, and I would rather do things face-to-face. I do online banking but that's about it." - John, 36

"There is still an element of risk as anything stored electronically has a risk. So, there is still that element of concern [when talking about data storage] … some people may refuse point blank as they feel anything you put on the computer can be accessed by anyone." - Jon, 47

Comfortable with the service from Timpson colleagues. Most participants felt comfortable with the service being offered by Timpson colleagues. However, three stated they felt uncomfortable as they believed the Timpson colleagues could access their data.

"Yes, I think I felt safer online because, ridiculously, if you're doing it all online there are no other human beings in the process. I also don't like using a communal computer because it feels like a weak link." – Beatrice, 36

"I feel most uncomfortable around the Timpson staff as they have all my documents to carry out identity theft." – David, 44

Participants' trust in the brands and service

The participants' trust in the service is transferred from its association with GOV.UK. Participants trusted the SecureIdentity brand because it was recommended by GOV.UK. That trust then continued to the ArkHive brand as it had been recommended and certified by SecureIdentity. Participants trusted the overall service and were pleased with what it set out to achieve.

"I was faced with a problem and this is the number of the brands within the process, that I don't know. However, they are all connected with GOV.UK so I trust them and it's a solution. I just need this situation resolved. GOV.UK has that reassuring sense. SecureIdentity and ArkHive are organisations that I don't know but as I have been led through the process from GOV.UK, I trust them." - David, 44

Timpson brand brings trust to a face-to-face service. Participants have trust in the ArkHive brand as it is "The identity shop by Timpson". Timpson has been around for over 150 years

and many people of varying ages have trust in its colleagues (staff) and identity. Some participants were surprised that Timpson was involved in an identity verification service as they knew it as a shoe repair and key cutting shop. However, many users on reflection, realised that "I trust them with my keys so why wouldn't I trust them with scanning and uploading my identification documents".

> "Timpson is a brand I know and use regularly. It is familiar sight on the high street so linking ArkHive to Timpson made me feel immediately comfortable." – David, 44

> "There is no difference with this service from them copying my front door key. There is trust with Timpson." - Robin, 47

Participants understanding of the service

Most participants were supportive of the service idea and understood the need. Most participants understood the requirement to come to a high-street shop after being unable to complete the identity verification process online with GOV.UK. It was apparent, though, that some participants became confused as to what the next step was after they left the shop; something that could be resolved with the initial email and a better information from the colleague at the end of the in-shop process.

> "It is great that I can keep all of my identity in a central document data store. It allows me to prove my identity when I use government things that require me to verify my identity. It would be brilliant if it was for everything." – Gillian, 34

> "Secure service that will ultimately save time going forward doing identity checks in the future" – Emma, 41

Participants were pleased the service was quicker than expected. All participants felt the service was quicker than expected and saw this as positive. Most participants predicted it would take between 15 and 30 minutes, the most common time expectation was 20 minutes. The in-shop service took, on average, 6 and a half minutes, from start to finish.

> "I thought that the in-store service would take longer, around 20 minutes but it took about 5 which was great." – James, 38

Participants didn't like having their photo taken. The process of capturing an ID photo in store was an area of great discomfort for participants, this being due to a natural dislike of their photo being taken, particularly by women. In Round 1 of the user research, the ID photo was always taken after the identification documents had been scanned and uploaded – mid-way through the face-to-face service. The participants' reaction to this was that it was not an

enjoyable experience. This was alleviated to some extent in the reasonably private ArkHive shop environment.

> *"Only having your photo taken was uncomfortable, I don't like having my photo taken." - Emma, 41*

> *"Fine to take a photograph, it's just another document to verify that you are the person in store." – Gillian, 34*

In Round 2 of the research, the participants were initially given the option of having their photo taken first. This was then adapted and they were asked when they would like their photo taken. Giving them the option, allowing them to decide if they want to get it over and done with at the start, or more time to prepare, clearly made them feel more comfortable.

> *"Some people can feel uncomfortable about having their photo taken, so it's good to get it over and done with" - Robert, 46*

Some participants were confused as to at what point they were considered verified. In Round 1, three out of eight participants thought they were verified before leaving the shop. When they were told this was not the case, they did not have an overly negative reaction. They just wanted this to be made clear at the outset.

> *"I think I felt I was still in limbo, failed online and concerned. You think you are coming in store to resolve the issue and then you don't. I felt disappointed and frustrated" – Katherine, 31*

> *"I thought they might verify them in store. It did not really bother me though because it was a quick in-store process and that was good" – Evangeline, 35*

In Round 2, the initial email was amended to make it clear that the participant would not be verified in the shop and would have to wait for a subsequent confirmation email. This was understood by all. Most would expect to receive the confirmation email within a few hours.

An ArkHive account was a familiar concept to most participants. ArkHive was a new brand name to the participants. However, it was not an unfamiliar concept to most of them and its affiliation with Timpson gave it a grounding of trust. Some likened the ArkHive account to iCloud, a secure Google Drive or Dropbox. This concept familiarity helped users to feel comfortable and trust the concept.

> *"It's an online document storage folder as secure as Dropbox, Google Drive or iCloud" – James, 38*

There was confusion over how the verified documents were seen by SecureIdentity (the identity provider). Some participants thought that it would happen automatically and they didn't have to share their documents. Others understood they would have to share their documents and were happy to do this as they felt they had full control over their ArkHive account.

"I wasn't sure whether they had been just uploaded and also accepted by SecureIdentity" – Beatrice, 36

"It's similar to online banking – you can give someone permission to come in and take money but no one can access your money without your say so. In the case of online identity with your ArkHive account, you have complete control. It's one way no one can get in unless you let them" – James, 38

Appendix B. Support of the colleague

The Timpson colleague is the key actor in the user journey, having to engage with the user in a calm and confident manner, whilst managing the user's initial wariness, ultimately leading to a successful outcome.

Much time was spent creating a script to follow and ensuring the colleague was well briefed and prepared, role playing and refining the user engagement prior to research commencing. On screen prompts were provided and refined as the research progressed. A leaflet for the colleague to give to the user was also provided.

> *"Better to give the leaflet to the user at the beginning of the service as it gives the customer information to look through whilst I explain further what an ArkHive account is." – Paul, Timpson colleague*

ID photo was the most disruptive part to their customer service. For the colleague, just as for the user, taking the ID photo was the most disruptive part of the service. This required people to move around within the shop environment and then return to their seats. It was suggested that this part of the service should be at the beginning of the process to alleviate the issue of getting up to take the photograph, something welcomed by the users in subsequent research.

> *"Straight forward process but the photo part is not as smooth" – Adam, Timpson colleague*

The disparity between length of process offered by the colleague and wanted by the user. Colleagues initially thought that the service should be as quick as possible; this was a disparity between the user and colleague. Users often expected a longer service and did not want to go through an important process quickly. They expected it to take some time.

> *"Went a bit quickly, it would have been easier to pause for questions and I would benefit from prompts to make sure the customer understands each stage of the process. As soon as I had finished I realised I had not mentioned certain things" – Adam, Timpson colleague*

Throughout Round 2 of the user research, the colleagues went through the service at slower pace with more prompts for questions. They understood that the user wanted an efficient service with more emphasis on ensuring the user has a clear understanding, and the good customer service experience that Timpson is renowned for.

Prompts build confidence for the Timpson colleague. In Round 1, the colleague and user sat opposite each other at a table. In Round 2, the colleague and user sat side-by-side. The prototype pages were changed to introduce further prompts for the colleague. This made it much easier for the colleague to explain the process with the help of visuals and printed materials. There was a clear change in the ease and confidence of the colleagues within Round 2, partly due to the growing familiarity of the service and also with the materials better supporting them, enabling them to focus on customer service.

"It felt quicker and less formal having the customer seeing the screen. In general, I prefer it this way as they can read and listen to what I am saying" – Paul, Timpson colleague

"Personally I like being sat next to the customer as I feel it is better, as there is no barrier between you and the customer. It's easier to connect to the customer this way and be seen as less formal" – Adam, Timpson colleague

Appendix C. The shop environment

The participants focussed on two aspects of the shop environment. The first was the location and the second, privacy within the shop.
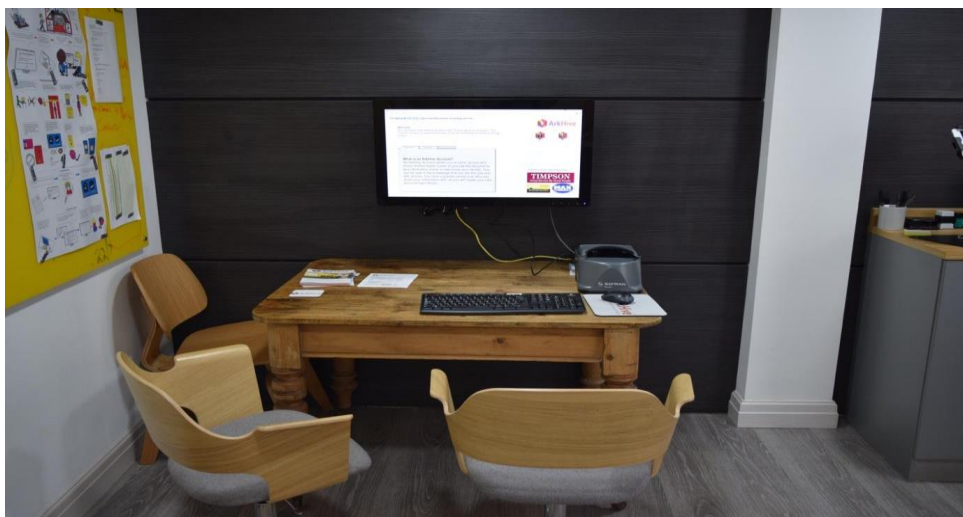
Most participants were pleasantly surprised to come to a high-street shop. Participants were very happy with the convenience of the shop location, commenting that they could combine a visit with other high-street shopping activity. Most were pleasantly surprised that it was not more of an official environment, such as at a Post Office or in a government building. For a small number of participants, this led to concerns over whether the service was official.

> *"The nature of verifying my identity in a high-street store is a bit unnerving" – John, 36*

The participants felt they had privacy in the ArkHive shop. Participants liked the layout of the shop. The user is seated at a table away from the view from the road. The ID photo is taken in a private area. Some participants suggested that privacy could be taken further and would have liked a booth so that there is no chance that another customer or staff member could see their documents or any information about them on screen.

> *"I like the fact that when you get your details out it's around the corner in the shop and the ID photo taken is out of the line of sight from the street which is comforting" – John, 36*

> *"I think the setup was fine but I am wondering that because you have your passport and driving licence it would be good to have a partition or booth." – Nekeshia, 26*

ArkHive identity shop in Round 2

Participants had concerns about privacy in Max Spielmann. Participants often commented that it was more informal than expected in the Max Spielmann shop. They felt that the in-shop environment was quite chaotic and it did not feel they had the privacy that they may have wanted. As the location was also part of a large Tesco store, one user thought that it was still part of Tesco and this led to some confusion.

> *"Probably I expected it to be more formal….I guess the 'Photo shop' setting was not what I expected. I expected a bank or a council office" – Hazel, 45*

In Round 2 of the user research the shop layout was changed. Customer facing screen pages were introduced, enabling participants to follow progress better. However, this introduced a further need to improve the participants' privacy. Within the Max Spielmann shop, a curtained booth was installed to give participants better privacy. This was well received. At the ArkHive shop, the customer facing screen pages were shown on a large screen mounted to the wall. Participants found this easy and clear to follow.

Participants felt comfortable in these environments. They commented, though, that a busier shop with less private areas would not be suitable. Participants mentioned that the typical layout in a Timpson shop would not be what they would expect for the environment of this kind of service.

> *"It was visibly private but vocally not. The room isn't sound proof so if there was something unusual about my documents in any way, that could be heard." – Jon, 47*

> *"I don't think I would do that sort of thing in a Timpson's shop. I think I would want some level of privacy, I'm at the back of the shop [ArkHive] and there is no one else around me. It's a nice and safe environment." – Robert, 46*

Max Spielmann environment in Round 2

Participants did not feel comfortable entering a password in the shop. Participants were most uncomfortable with entering a password when setting up their ArkHive account. Entering a password in store was considered the weakest link in the service, since it was a public computer. Participants were unsure that their password would not be saved. A few also thought that the Timpson colleague could have access to their passwords and this made them feel insecure.

> *"Although they are your own identity documents, they must be so readily available that they are almost like public documents. However, the password is something you generate and only something you know" – Beatrice, 36*

As entering the password in the shop was clearly a low point in the participants' experience of the service, the process was changed to enable the participants to enter a password in their own time. Two-step authentication using an email address or mobile number allowed the participant to receive a text whilst in store with a temporary code that then prompted them to change their password when they first logged into their ArkHive account. It was clear that participants felt this was secure and were more comfortable with this process. It provided reassurance of the steps that were being taken to keep their documents secure and allowed them to create a password in their own time in the privacy of their own home.

> *"That's a good idea because I tend to forget passwords so when you are back at home you can make a note of it or whatever" Helen, 61*

> *"Going to get an email and log in back home, I thought it was good not doing the password in store. I think it would make people feel more secure not doing it in store" – Evangeline, 35*