Online Identity Assurance

Findings from Service Design Discovery Research

SNOOK

Discovery phase remit

Snook were commissioned by Scottish Government Digital Directorate to carry out user research in a Discovery Phase that would gather insights about user experiences related to digital identity. The aim of the Discovery Service Design was to identify the problem that an online identity assurance programme might address, explore the user journey(s) and identify user concerns and needs.

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Discovery research: Organisations

We conducted scoping interviews with some key Scottish Government teams (including policy areas for e-voting, e-health, local government, migration and free movement of people), Scottish Social Security Agency, Registers of Scotland, National Records of Scotland, the Older People's Development Group (a stakeholder group), the Digital Office, and UK GDS.

We conducted further interviews with public service organisations at both managerial and frontline worker level, including Students Awards Agency Scotland, National Entitlement Card Programme Office, Disclosure Scotland, Edinburgh City Council, and Perth and Kinross Council.

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Discovery Research: Qualitative

Organisations

Interviewees	No.	Location
Non-staff interviewed individually	10	Falkirk, Glasgow
Interviewees in group sessions	20	Dundee
Total	**30**	

Individuals

Ages	No.	Location
18-24	3	Glasgow, Aberdeenshire
25-34	4	Glasgow, Aberdeenshire
35-44	2	East Lothian, East Ayrshire
45-54	3	Dundee, Glasgow, Renfrewshire
55-64	3	Angus, Renfrewshire
Over 65	2	Renfrewshire, Edinburgh
Total	**17**	

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Discovery Research: Quantitative

Over 25s survey responses

Age	Number
25-34	10
35-44	12
45-54	13
55-64	5
Over 60	0
Total	**40**

Young person's survey responses

Age	Number
Under 18	2
18-20	11
21-25	25
Over 25	6
Total	**44**

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Stakeholder Events

Stakeholder Workshop

Show and Tell

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Discovery Findings

Recurring themes

Convenient

- Feedback from people looking for an easier way to transact with public services, particularly related to benefit applications.

Cautious

- Feedback focused on concerns about data privacy and security.

Barriers to Access

- We have focused this section on requirements for assisted digital and mobile-first solutions.

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Convenient: simplification

People expressed exasperation with the complexity and fragmentation of services. People with disabilities and/or caring for someone with a disability had to understand and navigate services from UK Government, Scottish Government and their Local Authorities to receive the help they needed.

The application and assessment processes often involved sending originals of documents to each agency in turn. People mentioned ease of creating and authenticating identity to apply for and transact with private sector services, such as banks or online shopping. There was a definite demand to make people's lives easier by simplifying processes for public services through giving permission for data to be stored and/or shared.

"Why can't we learn from banking services? Years ago you had to go into your branch, arrange an appointment and fill in lots of forms. Now you can manage your account online and even apply for an overdraft online. The public sector needs to wake up and move on." (Dundee interviewee)

"There should be some way of linking to specialists notes rather than having the burden on the family to provide information on complex conditions – there should be a clear pathway for the family to pull information or give people permission to access records." (PAMIS Group)

Convenient: consistency

People were confused with the different interfaces they were presented with when making online applications that they thought were for one service provider. Forms also asked questions in different ways so that people felt they were being tricked into giving a wrong answer. GOV.UK has integrated a requirement to use common design patterns into the Digital Service Standard.

If there are multiple providers of Online identity Assurance services there must be a consistency in terms of language, visual appearance and functionality, allowing easy navigation of online forms and web platforms[1].

"I started on the council website because I wanted to do a simple thing, but then I was taken away onto the myaccount website and that was completely different and really complicated and they asked me so many questions that I didn't think were relevant. I only wanted to order a new bin for goodness sake! Then I couldn't go from there back to the council website and had to start all over again." (Dundee interviewee)

"It feels like they're trying to trick you. They keep asking the same questions again and again. (Forth Valley Group)

1. https://www.gov.uk/service-manual/service-standard/make-the-user-experience-consistent-with-govuk

Convenient: reducing duplication

One of the perceived benefits for having an assured online identity was linked to reducing the number of forms that people had to fill in, and the duplication of information given both to different departments of one agency, and to other agencies. This was perceived as unnecessary, time consuming, and costly. The key themes that emerged related to forms were:

- Frustration that there are still so many paper forms
- Irritation with online forms that don't allow you to save and return
- Concern about forms that ask people to enter detailed medical information that they don't necessarily feel competent to provide
- Exasperation with long, complicated forms that have to be re-submitted every year or every three years
- Annoyance about having to spend money to photocopy forms to capture your responses for your own reference

"The forms [for housing benefit] are really complicated. They ask the same question twice. Sometimes I don't understand the language used. I'm afraid if I give the wrong answers it will mean I don't get it." (Renfrewshire interviewee)

"Conditions don't change but still people need to reapply. They panic if they can't remember what they wrote last time – they are worried that they are going to be accused of fraud." (PAMIS Group)

Convenient: share data

On the whole people were keen for data to be shared between organisations to avoid them having to provide the same information repeatedly. Some people commented on the fact that they recognised that organisations already held a lot of data about them. Although some people were concerned about data security, others commented that items sent in the post were frequently lost, which also presented a security risk. Some people indicated that the person themselves should control who had access to their data and give permission for this to be shared.

"I have whole files full of documents from all the different agencies. The biggest bugbear for me is that the council can't just access benefits agency records so you have to keep sending them the letters you get and it's back and forth, back and forth and you're just the piggy in the middle."
(Angus interviewee)

"Why is it so easy to tax your car and for them to retain your info for that, but then they say they can't save your data to make it easier when you're applying for benefits?"
(Forth Valley Group)

Convenient: store data

Some respondents suggested that the solution to avoiding duplication of information and effort was that their data was stored 'somewhere' where different agencies could access it with permission. Most participants were unsure about where or how this might happen but saw the benefits. Some recognised that a lot of information is already stored by various agencies that could be shared. There were some underlying questions about what data is stored where and who holds it.

"I would rather they stored than asking me for it 10 times, I know some people are paranoid but they know everything about us anyway."
(Social Security Experience Panel)

"This system would be based on a single framework that follows each individual in Scotland from birth to death. One record that uses an individual's National Insurance number as their identifier. Variable personal allowances will be allocated at different stages of an individual's life." (Social Security Experience Panel)

Cautious: reliability of organisations

Caution about online identity tended to focus on three specific questions:

- Who holds my data and how reliable are they?
- Who can access my data and who controls that?
- How safe is my data and what is the risk from hackers?

There was definitely a variety of opinions on who people trusted to hold their data. Some people were comfortable with private sector organisations, such as banks and Google holding data about them and distrustful of government services. Others were more trustful of government and wary of private organisations holding their data. This illustrates the need for a range of options that offer choice to suit different people's motivations and concerns.

"I'd love it. Would just need to make sure it's really secure. I think the reason why so many people use Facebook or Google to log into things is because they're so easy... and yet I feel uneasy about letting private companies have so much access."
(Online survey response)

"I'd very much like it as long as it doesn't cross-share my data with services - like gov.uk verify, if I use Barclays identification, it doesn't share any info with government. I like the simple instructions and clearly understood terms and conditions about transferring data."
(Online survey response)

Cautious: access and control

There is some concern over who would have access to any data stored and appropriate and proportionate use of and access to that data. People would like clear information about who can access their data and visibility over who is accessing it, when and for what reason. Some people want to control their own data and others at least want to control who has access to it.

"Make sure information is stored securely without being accessed by people not entitled to see it."
(Social Security Experience Panel)

"It's a data ownership issue – who owns it? Is it the NHS data or is it your own data? Some people would prefer to own it themselves, then they can see what is there."
(Social Security Experience Panel)

"Convenience would be good - easier than filling in forms all the time (even online forms). Would want assurance about what information people from different organisations had access to."
(Online survey response)

"Would need permission to be asked on a case by case basis. I would give permission for council to see evidence for Housing benefit claim but it doesn't mean I would be happy for any council dept to see my information."
(Social Security Experience Panel)

Cautious: security of data

There are genuine concerns about the security of data held centrally and the risks and implications if a single online identity giving access to multiple services was compromised. Many people mentioned the threat of hackers who target large data sources and their concerns related to this.

"It is a fantastic idea, naturally the biggest concern is security. It would need to be incredibly well encrypted as the potential damage that could be inflicted should the data be stolen is huge." (Online survey response)

"Standard concerns in respect of how secure the system was, what happens if it is compromised, what visibility I have on how the data is used as well as the number of services I can use it for to justify the effort." (Online survey response)

"I would agree that this would make things online easier, but I would not agree with this cause if this verified Online Identity was hacked which would eventually happen because nothing is impossible to hack, they would have access to everything. Possibly without the individual even knowing someone else has access. so therefore I would highly not recommend that this happens and would prefer to use different methods/passwords for different services meaning that if one service is hacked they cannot get access to other services." (Online survey response)

Accessibility Concerns

For some people the main barrier to accessing public services was their own lack of digital skills and lack of technology or internet access to go online at home (if they have a home). For others (specifically those with visual impairments) the main challenge with both online and paper forms was that they were not available in formats that were suitable for text to speech translation.

Many of the Third Sector groups we engaged with committed a significant proportion of their resources to supporting their clients with online applications and forms. Any Online Identity Assurance solution must therefore accommodate proxy and third party management.

"Someone goes to their home and works with them to complete forms. We found it's easier to go to their home, partly transport, but also talking about benefits is difficult, and involves personal details like money. It's easier and more comfortable to do that at home. Some people have friends and family there too."
(Deaf and Blind Scotland)

"Some people will go without claiming for benefits because they have been told they have to apply online. People don't have the IT skills to do this or access to computers or internet at home. Out of the 50 people we support only 2 people have home broadband Wi-Fi, although half of the young people have data on their smartphones." (Support worker)

Mobile accessibility

A report from Ofcom at the end of 2017 highlighted that 70% of people in Scotland now own smartphones and for 41% of the population their smartphone is the most important device for accessing the internet[2]. Any solution to Online Identity Assurance must therefore work easily on a mobile phone.

"If they access services at all online it will be via their phones. Other than that, the Mitchell Library in Glasgow is a place where asylum seekers go and they can access free computers there."
(Scottish Refugee Council frontline worker)

"I don't have a computer. I only use my phone for internet. But you can't fill out an application form on your phone. It's just impossible. I had to get my partner's daughter to do it for me on her tablet."
(Dundee interviewee)

"Everyone uses iPhones, none use Android: due to built in accessibility features such as text to speech, audio description, large font etc. These features on desktop PC's/laptops cost thousands and are temperamental."
(Forth Valley Group)

2. https://www.ofcom.org.uk/__data/assets/pdf_file/0020/105194/cmr-2017-scotland-charts.pdf

Seven easy steps?

The Digital First Service Standard[3] states that when designing new digital services, organisations must,

"focus on what your users want to do rather than the organisation's objectives or the mechanics of delivering your service."

Many people commented on how complex and confusing the demands for proof of identity and eligibility were in existing services. They felt that this could and should be simplified greatly by having a common, consistent approach to this. People made reference to modern banking services (such as Monzo) which take a simple, straightforward approach to verifying identity.

We have used some of the comments received and examples given to outline a simple seven step process to online identity as illustrated in the following pages. This outlines the basic components of an online identity service without outlining the detail of exactly how this could be achieved. We have focused completely on how we might enable people to achieve what they need to achieve in the fewest possible steps, using whatever channels of communication and forms of identity they feel most comfortable with.

3. https://resources.mygov.scot/standards/digital-first/

Hypothetical User Journey: Seven Easy Steps

	0	1	2	3	4	5	6	7	8
	Prompt	Understand	Create	Gather	Verify	Confirm	Expand	Remember	Leave
Creating an online personal profile	Something happens where you have to establish who you are to access a service you need. This could be applying for something (for example applying to rent or buy a house; applying for a passport or driving licence; or applying for a loan, local authority or government benefit).	You get a clear explanation of what is involved in creating an online identity. This will focus on the benefits and different ways you can use your identity once you have created it. It will also explain what will be required to establish your identity and the different documents you might need and actions you might have to take (such as photographing or scanning).	You create a personal profile. You will see a clear visual description of the different levels of personal profiles and what is needed to access different services, including the different documents you might need. You enter your basic data (name, address, date of birth) and choose how you would like to be contacted, and how you would want to secure your personal profile.	You gather the documents that establish that this person exists. As explained previously there are different ways to establish your identity **1.** by using recognised identity documents, such as passport or driving licence **2.** by providing evidence of financial identity and activity, such as a credit card use, a mortgage or loan **3.** by having a trusted person, such as a GP or teacher, confirm your identity You may be able to prove your identity using just one of these routes, or you may need to provide proof in different ways	You use whichever tool works best for you to verify you are this person. This may involve taking a photo or video or recording your voice. This information will be compared with the information your have provided in the previous stage, such as your uploaded documents, to verify that you are the same person. You may have to get an external person to verify your identity if you don't have enough proofs.	You receive clear confirmation that you have succeeded in creating a verified online personal profile and where and how you can use this. For a basic profile (which will include verified name, address, date of birth) you will be able to access relevant information, and report problems or request certain services.	You will be prompted to **1.** save this profile to access future services **2.** to add further information if you are likely to want to apply for other services **3.** to opt to receive reminders from services if a document or application needs to be renewed. You will be provided with an example of what services you can access with the level of information you have provided. If you want to verify your eligibility for other services or benefits you will be provided with examples of what kind of proofs of eligibility you will need for different services, and how to obtain these.	If you have opted to receive reminders, you will be sent a reminder on whichever channel you have chosen, when you need to update information. You will receive a reminder about renewing your travelpass or Blue Badge for example, and details of how to use your online personal profile to do this.	If you decide you no longer want to have an online personal profile then you will have clear information about how to delete it. It will also be easy to delete it. You will receive an explanation of alternative routes you can take to verify who you are to access services you need.
Channel									
Principles	• Simple language and accessible content • Consistency and coherence • Confirmation and reassurance • Joined up, not fragmented • Helpful, responsive and proactive	• Person centred, not system centred • Provide the right level of explanation people want and need at each stage • Simple language and accessible content • Consistency and coherence	• Person is in control • Easy to join, easy to leave • Simple language and accessible content • Consistency and coherence • Levels of security and privacy	• Enabling not blocking • Appropriate to what the person is trying to achieve • Simple language and accessible content • Cost and accessibility • Consistency and coherence	• Enabling not blocking • Make it work right, first time • Appropriate to what the person is trying to achieve • Simple language and accessible content • Cost and accessibility • Consistency and coherence	• Person is in control • Simple language and accessible content • Consistency and coherence	• Tell us once • Person centred, not system centred • Enabling not blocking • Person is in control • Simple language and accessible content • Consistency and coherence • Confirmation and reassurance • Integrated access to existing information • Helpful, responsive and proactive • Levels of security and privacy • H8	• Enabling not blocking • Simple language and accessible content • Consistency and coherence • Helpful, responsive and proactive	• Easy to join, easy to leave • Simple language and accessible content • Consistency and coherence
Alternative journeys		Support organisations will have clear explanations of what is involved and what needs to be done to enable them to explain this to individuals who need extra help.	If you are unable to do this yourself you will be directed to a variety of services who can support you to do this. If you get someone else to create this on your behalf you will have the option to give them permission to manage this for you.						

Hypotheses

To enable us to test some of the findings from the research, we have taken each theme and produced a top level problem statement, and solution specific hypothesis for each. This is a practical expansion of a user needs statement, helping to frame user needs into themes and specific features that can be prototyped in Alpha. We frame the problem statements and hypotheses as follows:

Top level problem statement

We have observed that this [service or aspect of a service or product], isn't meeting these [needs], causing this [effect/problem].

Solution specific hypothesis

We believe that fixing [this element] will achieve [this impact] so that [productivity gains] and [outcomes improved] .

We have developed hypotheses to be tested by grouping some of the themes and outlining hypotheses that address both the desire for convenience and concern over security and privacy.

Hypothesis 1: Simplification

Problem statement:

We found that public services are not meeting people's expectations for ease of use they experience in private services such as banking. This has these effects/impacts:

Relationship with organisations: People feel public services are outdated, bureaucratic, and slow to adopt new methods.

Impact on personal wellbeing: People are frustrated and angry.

Impact on day-to-day life: People have to take time out to visit offices in person with documents or have to spend a lot of money sending documents by recorded delivery.

Positive hypothesis

People want public services to learn from the private sector

Negative hypothesis

People are concerned about a single sign-on to multiple services that might compromise data security

Solution specific hypotheses

It must do this: be simple and easy to use

It must not do this: compromise data security

We believe that providing authenticated online identity service(s) will make it easier for people to transact with public services so that we achieve efficiency savings in public services and people get the support they need, when they need it, to flourish[9].

9.http://www.parliament.scot/S5_Environment/General%20Documents/National_Outcomes_Review__Reporting__Parliament__Report__FINAL_APR.pdf

Hypothesis 2: Consistency

Problem statement:

We found that different formatting, language, and layout of forms and web platforms is confusing for people. This has these effects/impacts:

Relationship with organisations: People give up and call the organisation when they cannot complete the form or navigate the website, leading to increased demand on staff time.

Impact on personal wellbeing: People are made to feel stupid, impacting on their self-confidence

Impact on day-to-day life: People often resort to visiting third sector support organisations, such as Citizens Advice or Age UK. These organisations often have a waiting list for support, meaning that people cannot access the benefits they require on time.

Positive hypothesis

People want consistency and coherence to enable them to complete applications quickly and easily

Negative hypothesis

People do not like or understand bureaucratic language

Solution specific hypotheses

It must do this: be simple to understand and straightforward to navigate

It must not do this: talk down to people

We believe that providing design patterns for authenticated online identity service(s) will make it understanding and completing applications easier so that we reduce errors and people are able to complete online applications with minimal support.

Hypothesis 3: Duplication

Problem statement:

We found that many people are having to frequently repeat the same information to different departments in one agency and to other agencies, as well as being asked to pass information between agencies. This has these effects/impacts:

Relationship with organisations: People distrust organisations and feel that they are themselves distrusted.

Impact on personal wellbeing: People feel that some of the complexity is designed to thwart them, prove they are fraudulent, and prevent them applying for or receiving benefits they are entitled to.

Impact on day-to-day life: People are bounced back and forth between agencies, paperwork is often delayed and/or lost, and they don't get the benefits they are entitled to enable them to flourish.

Positive hypothesis

People want to enter information about circumstances that confirms eligibility once and only change this if circumstances change.

Negative hypothesis

People are concerned about the reliability of organisations to securely store and share this data/information appropriately.

Solution specific hypotheses

It must do this: be simple to understand and straightforward to navigate.

It must not do this: compromise security of data or allow organisations, departments or people without authorisation or reasonable cause to access private information.

We believe that developing a 'Tell us once' model for gathering personal and sensitive information from individuals will mean that important details are captured accurately, reducing duplication of effort and resources in public services, and freeing people to get on with their lives and spend less time, effort and stress completing forms.

Hypothesis 4: Data sharing

Problem statement:

We have found that lack of communication and coordination between public service organisations has resulted in people not being able to access the services or receive the benefits they are entitled to, causing frustration and hardship. This has these effects/impacts:

Relationship with organisations: People receive competing demands for the same documents and proofs of eligibility from different departments in the same agency or different agencies.

Impact on personal wellbeing: People get confused about who needs to know what and unsure of how to prioritise competing demands from organisations for information (Should I send the doctors letter to social security or the council first?).

Impact on day-to-day life: People are bounced back and forth between agencies, paperwork is often delayed and/or lost, and they don't get the benefits they are entitled to enable them to flourish.

Positive hypothesis

People want to be able to give authorisation to share data between organisations.

Negative hypothesis

People want to have control and visibility over who can see their personal information in different agencies.

Solution specific hypotheses

It must do this: allow the person to be control if they want to do this or are able to do so.

It must not do this: compromise security of data or allow organisations, departments or people without authorisation or reasonable cause to access private information.

We believe that providing options for security and authorisation for use of personal data held online will avoid duplication of effort and time while ensuring secure and appropriate access to personal information for relevant organisations.

Hypothesis 5: Data storing

Problem statement:

We have found that the lack of opportunity to store important personal information (or know where it is stored and give permission to access it) is not meeting people's needs or preferences for ease of communication with public services. This is causing frustration and duplication of effort for both citizens and service providers. This has these effects/impacts:

Relationship with organisations: People are frustrated with having to repeat the same details over and over again.

Impact on personal wellbeing: People get worn down by having to repeat information, especially when this is having to explain disabilities.

Impact on day-to-day life: People feel disheartened when they repeatedly have to emphasise the negative aspects of their disabilities to apply for benefits.

Positive hypothesis

People want to be able to store important information, and/or know where it is stored and have authority to share this with different agencies.

Negative hypothesis

People want to be assured that their information is stored securely.

Solution specific hypothesis

It must do this: store data safely and securely

It must not do this: be susceptible to hackers.

We believe that providing opportunity for people to store information (particularly in relation to proving eligibility for benefits) will make it easier for people to apply for benefits and service providers to process applications so that people can access the services they need and get the benefits they are entitled to enable them to flourish.

Hypothesis 6: Accessibility

Problem statement:

We have found that complexity of forms and websites is not meeting the needs of those who require assistance to access digital, causing people to face problems when trying to access public services. This has these effects/impacts:

Relationship with organisations: People cannot easily communicate directly with public service organisations, forcing them to rely on third sector and support groups.

Impact on personal wellbeing: People feel excluded and disenfranchised.

Impact on day-to-day life: People have to rely on others to read personal information and communicate with services on their behalf. This can be intrusive and humiliating.

Positive hypothesis

People with disabilities should be able to access the information they need, and communicate with public services in the ways that work best for them.

Negative hypothesis

People with disabilities should not be excluded because of poorly designed systems.

Solution specific hypothesis

It must do this: allow people with disabilities to use it easily[5].

It must not do this: be complicated or require expensive technology or software to enable them to do this.

We believe that providing accessible online identity services will make it easier for disabled people to apply for benefits so that they can access the services they need and get the benefits they are entitled to enable them to flourish.

5. https://www.gov.uk/guidance/accessibility-requirements-for-public-sector-web-sites-and-apps

Hypothesis 7: Mobile accessibility

Problem statement:

We have found that many people do not have home broadband and use smartphones as their main point of access to the internet. This means that complex forms that cannot be completed on phones exclude them from making online applications or force them to go elsewhere or seek help to complete online applications. This has these effects/impacts:

Relationship with organisations: People are forced to complete forms with sensitive personal information in public places or rely on others to help them.

Impact on personal wellbeing: People feel excluded and disenfranchised.

Impact on day-to-day life: People have to rely on others to communicate with services on their behalf. This can be intrusive and humiliating.

Positive hypothesis

People should be able to create and use online identity services on a mobile device

Negative hypothesis

People should not be excluded from making applications when they only have access to a mobile phone.

Solution specific hypothesis

It must do this: allow people to use it easily on mobile devices

It must not do this: be impossible to complete on a mobile device.

We believe that providing mobile enabled online identity services will allow people whose first or only device is a smartphone to create and use online identity services as easily as others and enable them to apply for benefits so that they can access the services they need and get the benefits they are entitled to enable them to flourish.