

HasAnswers: Development of a Mobile Service to Support Young People to Find and Keep a Home

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ABSTRACT

Many young people experience difficulty finding and keeping an independent home, which can lead to homelessness or risk of homelessness. To help address this challenge, a young people's service in Scotland (Calman Trust) is developing a mobile service called HasAnswers. This paper provides: a description of HasAnswers; the results of iterative testing with 59 young people (36 male, 23 female) using paper and digital prototypes; and feedback from other services with a responsibility for supporting young people to achieve an independent adulthood, as a potential target market for the future scaling up of HasAnswers. While preliminary, the findings indicate the usefulness and acceptability of HasAnswers. The research contributes to HCI work on design for independent living and homelessness. In particular, the paper contributes new insight into the challenge that some users may experience navigating to the information they need, and an approach to address the problem that has been embedded in HasAnswers and preliminary tested with positive results.

CCS CONCEPTS

• Human-centered computing → **Interface design prototyping**

KEYWORDS

Homelessness; independent living; young people; mobile service.

INTRODUCTION

Calman Trust is a young people's charity based in the city of Inverness in the Highlands of Scotland, UK. The Charity

provides a holistic service of independent living advice and support, combined with a range of learning opportunities, to young people aged 16–24 years who experience difficulty in the transition to independent adulthood and the world of work. With a focus on prevention and early intervention, services include: delivery of leaving home education to school leavers; cooking groups for young people to learn to cook on a budget; accredited training for young people who are about to leave school or have left school and are unemployed; and social enterprises, where young people work on trainee placements alongside professional teams to achieve skills, experience, knowledge and confidence to take to the job market. The majority of clients experience specific challenges that potentially place them at a disadvantage in managing the transition to adulthood and work, including poor mental health, mild/moderate learning disability, developmental disability, care experience or family breakdown. Many are faced with finding and keeping their first independent home with little or no family support or positive adult role model to call upon. The circumstances that cause youth homelessness are much broader however, and for any young person can escalate quickly from, e.g. failure to pay rent, tenancy breakdown or a broken relationship. Across Scotland, addressing youth homelessness is a priority, as the personal and social cost is extreme. Every local authority invests significantly in the provision of housing support for individuals identified as homeless or at risk of homelessness, with an emphasis on prevention. In the context of public funding cuts, those providing such support are increasingly required to 'do more with less' whilst offering equity of access. However, the problem is not confined to Scotland: homelessness is a major societal global problem [14]. Calman Trust regularly receives requests to provide services in remote and rural areas, however distance and numbers means that this is financially unsustainable.

It is in response to these challenges that Calman Trust is developing HasAnswers. The Charity has drawn on its

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extensive experience of providing a housing service to young people including homeless young people—classified by the national regulator for care services in Scotland (Care Inspectorate) as excellent—in distilling the essential information that a young person will need when seeking to find or keep an independent home into a mobile service. For example, what are their housing options, the financial implications, the legalities, connecting and paying for utilities, welfare benefit arrangements, and what to do if homeless or at risk of homelessness. HasAnswers is designed to be age and location specific; the young person is offered the local solution, what to do personally, or directed to the office and person who can answer their question. It can be the first point of contact leading to individualized access to more complex support, or the means to resolving matters early and experiential learning in what's required to manage independent living. Whereas access to practical support is typically triggered only after breakdown, HasAnswers is potentially a means to equip young people with early access to the information that will enable them to manage independent living, knowing where to go for help if they need it and what to ask. The age range for HasAnswers is 14–24 years. The main user groups are: young people who are using Calman Trust services and possibly other services (User Group 1); young people who may need but do not currently have access to independent living support (User Group 2); and young people starting to think about and/or leaving school and/or home for the first time (User Group 3). These groups reflect the anticipated uses of HasAnswers: from young people living at home with the support of their parent(s)/carer(s) using HasAnswers for help or as a learning tool; to young people with limited family support and poor knowledge or understanding of their options, using HasAnswers to fix a problem. It is expected that the literacy capability of users will vary and some may be affected by developmental issues, such as Autism Spectrum Disorder (ASD), and have a range of capability in managing written communication, visual content or complex themes.

This paper provides a description of HasAnswers, the results of testing with young people using paper and digital prototypes, and feedback from other service providers in the field, as a potential customer base for the future scaling up of HasAnswers to new geographical locations and organisations. This paper contributes to the body of work within HCI on design for independent living and design for homelessness. The main contributions are:

- A prototype design for a mobile service (HasAnswers) with a novel focus on supporting young people to

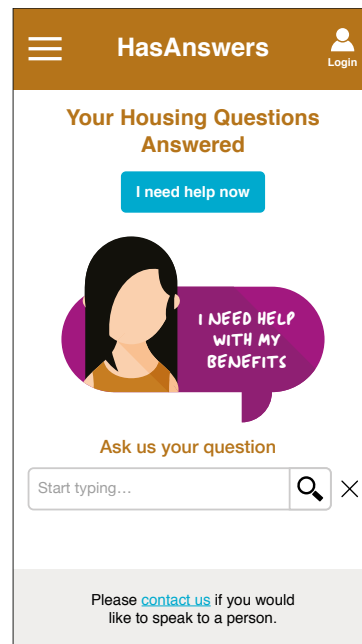


Figure 1. The homepage of HasAnswers.

find and keep a home, and a greater emphasis on prevention and early intervention of homelessness compared to related work, informed by an iterative user-centred design process;

- New insights derived from the research, and the experience and expertise of Calman Trust. In particular, the challenge that some users may experience navigating to the information they need, and an approach to address the problem that has been embedded in HasAnswers and preliminary tested with positive results.

DESCRIPTION OF HASANSWERS

HasAnswers is a web-based service designed and optimized for use on a smartphone, although it can also be accessed through a browser on other devices. The design follows user-experience guidelines for improving the usability of mobile sites such as avoiding deep navigation hierarchies, minimizing typed input, and prioritizing content over ‘chrome’ (user-interface elements) [1]. Digital technology is an ordinary part of life for many young people. In the UK, most young people (93%) aged 16–24 years use a smartphone; are more likely to go online using a smartphone than a computer (94% vs. 66%); and one in ten (12%) only use a smartphone to go online [11]. Many homeless young people also have smartphones for accessing the Internet for support through open public wireless networks or paid-for plans [4, 7, 13]. The starting

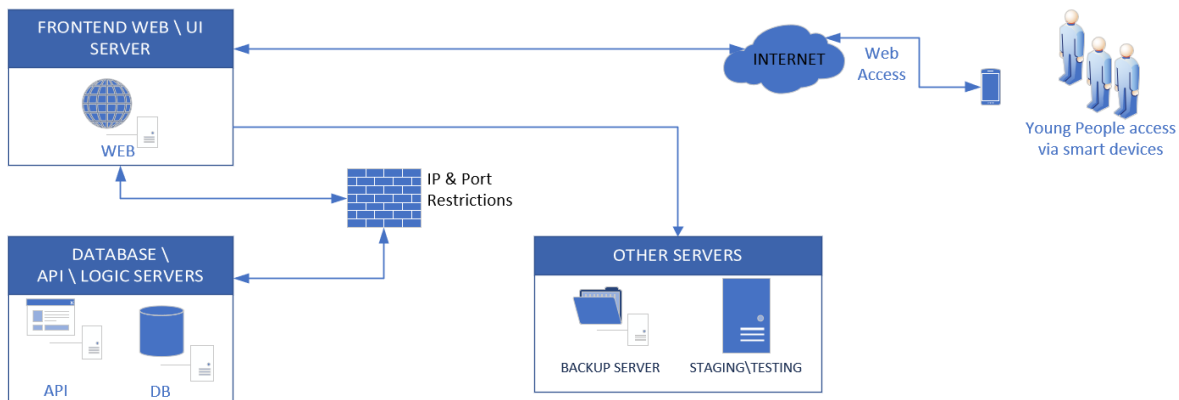


Figure 2. The basic technical outline of HasAnswers.

point for the design of HasAnswers was (unreported) preliminary and exploratory work undertaken by Calman Trust that included feedback from young people. The design was subsequently developed based on the findings of the research reported in this paper.

Information Topics

HasAnswers provides a comprehensive range of topics on finding and keeping an independent home. The topics follow general principles of writing for the web, e.g. using short paragraphs, brief concise sentences over convoluted ones, and left-aligned text [1]. Where applicable, topics are tailored to the user's age and location, via him/her selecting their age and entering their postcode. Allowing users to select age, rather than date of birth, enables HasAnswers to be used in an exploratory manner: users can access advice and support to resolve their housing issue(s) specific to their age/postcode, or change the parameters to learn how the information changes as their circumstances change. An audio version of each topic is available to listen to as it is anticipated that some users will have low literacy skills, difficulties with language or simply find it easier to use this medium. Topics can be bookmarked to return to later by tapping a 'Save for later' button. A screenshot of the page can also be taken by tapping a 'Take screenshot' button.

Search

Search has been designed with the aim of supporting users to quickly find the answer to their question(s): a standard search box is provided on the homepage of HasAnswers (Figure 1), above which a rotating sample of clickable search queries/avatars is positioned to support users to understand what the site has to offer and to formulate a search query. HasAnswers deviates from the standard method of generating a search results page from all those

topics that contain a keyword match, as it is anticipated that a potentially long list of results could be overwhelming for some of the target audience. Instead, a search index (a pre-defined, static pool of possible results) has been manually created, where keywords are linked to specific topics and topics are ranked by relevancy. In this way, the search results page is expected to be more succinct and on-target for what the user is looking for.

Emergency Advice and Support

Based on Calman Trust's experience of delivering a housing service, it is anticipated that some users will be in urgent need of certain types of advice and/or support. A button labelled 'I need help now' is situated on the homepage (Figure 1), which links to a section with topics on the issues that are more likely to lead to homelessness if not resolved. For example, having nowhere safe to stay for the night, having problems with welfare benefits, having to leave home because of an argument, and not feeling safe at home. Where applicable, topics are tailored to the user's location, e.g. the contact details for organisations able to help locally are provided. Recognizing that the digital format alone may not suffice, the 'I need help now' feature is complemented by the facility to contact a member of the HasAnswers team directly for further support via a standard contact page, a link to which is provided on the footer of every page.

'Me' Area

Once a user has registered and logged in to HasAnswers, they can access a personal and private area called 'Me'. 'Me' is a facility for users to work online with a Calman Trust support worker. The facility allows for the establishment of an individualized working relationship and removes the need for face-to-face meetings or phone calls for anyone put off by this—potentially enabling support workers to

build trust and relationships with young people who may otherwise have not engaged. The area contains a calendar, a document sharing area, and a personal profile. The calendar can be amended by both the user and support worker. Its intended use is to keep track of appointments, tasks to be completed, and important deadlines and dates. The calendar offers the means to develop a shared plan and understanding between the user and support worker. The document area can also be amended by both the user and support worker. Its purpose is to aid with the completion of forms and documents as well as store important information that may be required by Calman Trust and other organisations. Finally, users will be encouraged to complete a personal profile to expedite future form completion and applications. The 'Me' area will also contain any topics that the user has bookmarked.

Technical Description

A database driven web-based service was developed, hosted within a commercial, fully General Data Protection Regulation (GDPR) compliant and certified hosting data centre. Figure 2 illustrates the basic outline, indicating how users access HasAnswers through a browser on their smartphone. Robust security is implemented throughout the database server software developed and associated hosting environment, and access to the service is protected by an advanced firewall. In addition to the live website, a separate staging server is used for testing any changes as part of the iterative development methodology used (a staging server is a type of server that is used to test a software, website or service in a production-similar environment before being set live). Additionally, a separate, daily robust backup regime is implemented, to a separate backup server within the commercial data centre. The content and logic utilized within HasAnswers currently needs to be added by a skilled programmer. However, future work includes developing an administration system to allow non-technical staff the ability to independently manage the content of HasAnswers and provide on-going advice and support in the 'Me' area. A thorough review and audit of HasAnswers has been conducted by a qualified GDPR consultant, to ensure any shortfalls in compliance have been identified and addressed.

RELATED WORK

HCI Research and Design for Homelessness

This paper extends and builds on research and design presented at HCI venues on design for homelessness.

For example, the student design competition at CHI 2008 focused on the problem of supporting the state of living without a house. Entries included a web-based application ('HealthShare') targeted at homeless care professionals (HCPs) who work with homeless people, comprising an address book of clients, a health profile for each client, and a calendar for scheduling appointments with clients [12]. The 'Me' area of HasAnswers similarly provides a facility for connecting HCPs and homeless young people. However, unlike HasAnswers the information on HealthShare is only accessible to HCPs, limiting its potential usefulness to clients. Another competition entry was a budgeting tool ('NestEgg') targeted at low-income earners 'living on the edge of homelessness' [10]. Similar to HasAnswers, the NestEgg supports individuals to budget, with additional advice and support provided by a professional as needed. However, HasAnswers goes further by providing a much broader range of information to support individuals to avoid the risk of homelessness.

A paper session at CHI 2011 focused on 'homeless users' and included research that highlighted a design opportunity for location-based services to provide specific kinds of information that homeless people might seek [17]. HasAnswers builds on this opportunity by providing the essential information that a homeless young person will require, derived from Calman Trust's experience of delivering a housing service, in a format that is age and location specific. Two of the authors of [17], Woelfer and Hendry, have indeed built a substantial body of work on the experiences that homeless young people have with digital technology. More recently, Hendry et al. presented a future vision ('Job Co-op') that matches homeless young people with suitable jobs and job sponsors, and addresses two substantial challenges that young people experiencing homelessness have finding and keeping a job: the 'identity challenge' (developing an identity appropriate for work) and the 'job challenge' (generating jobs appropriate to homeless young people) [4]. In terms of addressing the job challenge, Calman Trust services include employing young people in its social enterprises. In terms of addressing the identity challenge, HasAnswers contains topics on finding a job (as part of keeping a home), e.g. creating a resume, and young people who utilize the 'Me' area will be supported to learn job-related skills.

HCI Research and Design for Independent Living

While there has been less emphasis within HCI research and design for prevention and early intervention of homelessness, there is a large body of work on independent living. However, the term 'independent

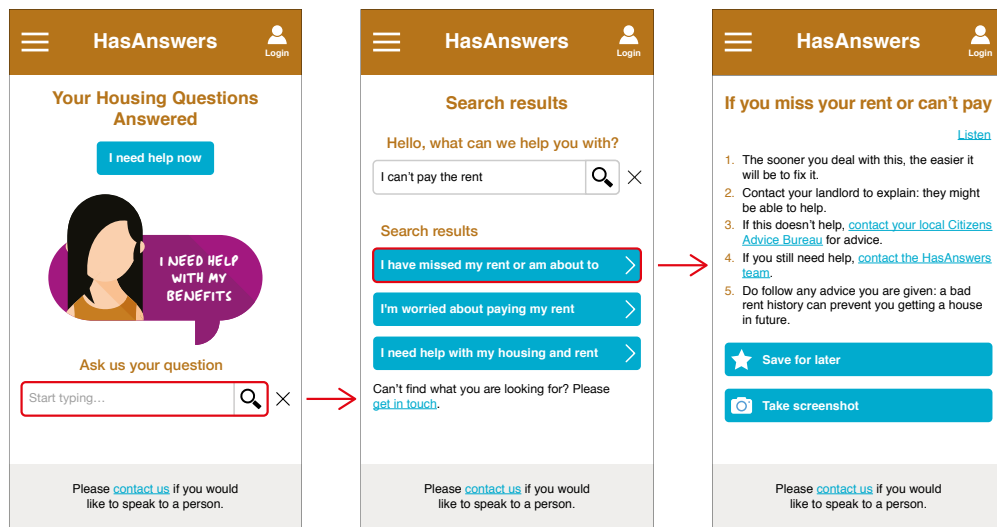


Figure 3. Forty-five young people tested the digital prototype of HasAnswers.

living' is often used in the context of supporting older adults and people with disabilities to maintain their independence and access appropriate support when they need it, and this is reflected in the HCI literature. In particular, design for older adults and independent living. To the best of our knowledge, there is no published research on the specific topic of supporting a general population of young people to find and keep an independent home. This is an important gap because housing-related issues can cause significant discomfort or distress and quickly lead to homelessness. For example, where a change in circumstance such as becoming unemployed leads to not being able to pay the rent.

Research on supporting people to manage other aspects of independent living has been reported. For example, Hayes and Hosaflook present a mobile system ('HygieneHelper') to support young people with ASD to learn about and track healthy hygiene behaviours, as a key skill for independent living and employment [3]. Research by Hourcade et al. argues the need for supporting children with ASD to develop the social skills needed for independent living later in life, and presents a study evaluating the use of apps for encouraging social interaction in children with ASD, with positive results [5]. To give a final example, research by Mankoff et al. explored the information that prospective tenants need before and after signing a lease for a rental property, and based on their findings, presented a new rental search system ('eDigs') to improve the process of searching for a rental [8]. However, while eDigs supports individuals to find a home, the system is focused on providing information specific to a particular rental, such as the

estimated costs for utilities; whereas HasAnswers provides general information on utilities and paying for utilities, as well as information on keeping a home.

Housing Services Provided by Campaigners/Charities

Homelessness campaigners and charities are using digital technology to help individuals who need housing advice and support, or who are homeless or at risk of homelessness. For example, the 'StreetChange' app enables people in Philadelphia, USA, to donate necessities like socks, shoes and raincoats requested by homeless people in the area, who are encouraged to meet with a caseworker to discuss healthcare and housing options when picking up their goods [15]. HasAnswers similarly facilitates the building of trusting relationships with case workers, via the 'Me' area, all the more so for those young people who would not engage in face-to-face meetings or phone calls.

In the UK, a major housing and homelessness charity, 'Shelter', provides face-to-face services, a website with housing information and a webchat service, and a free emergency helpline. A search facility is provided on the homepage of the website. However, as with search engines in general, a broad keyword search results in a large number of returns. For example, at the time of writing 386 results were found for the search term 'rent'. This is important, as Shelter itself has identified that the wealth of information available can be a barrier to use (as well as a driver) for people with housing issues, requiring user confidence to identify, evaluate and act on the most relevant information and advice [16]. By contrast, the approach embedded in HasAnswers is to manually create

a search index with the aim of providing search results lists that are more succinct and on-target. Also, the human channel of support is a key feature of HasAnswers to ensure users' housing questions are answered.

Advice Local is a website from a UK advice charity, Lasa, that provides information topics relating to social welfare such as housing and employment [6]. From the homepage, users enter their postcode and select a topic to find links to information for their area, including details of local advice organisations. HasAnswers similarly provides local solutions to issues, however it goes further by offering person-to-person support, which has been identified as important both through our own research (described later) and other research, e.g. [16]. Also, both Advice Local and the Shelter website are not designed specifically for young people.

METHOD

Engagement with Young People

The project employed an iterative user-centred design process to help ensure HasAnswers is useful, usable and accessible to the young people it is intended for. It is also the democratic right of young people for their voice to be heard [2]. Ethics approval for the project was obtained from the Research Ethics Committee at the partner academic institution. To begin, paper prototypes were created. These served a dual purpose: to build consensus and understanding among the project team members, and for constructive review and iterative changes; and for the early testing of ideas with project participants. Next, a digital prototype was developed. Seven research sessions using the prototypes were conducted with participants on an individual, dyad or group basis, as described in this section. Of particular note, the early prototypes differ from the design described in the preceding section of the paper in one fundamental way: the early prototypes organised the topics into categories and subcategories i.e. a hierarchical structure, whereas the current prototype does not (Figure 4). The rationale for the iteration is described in the Results section.

Participants

Fourteen young people residing in the Highlands of Scotland, clustered around the city of Inverness, tested the paper prototypes. The sample was comprised of 13 male participants and one female, with an average age of 21 years. The minimum age was 16 years and the maximum age was 28 years. Participants represented two of the three user groups described in the Introduction section: 10

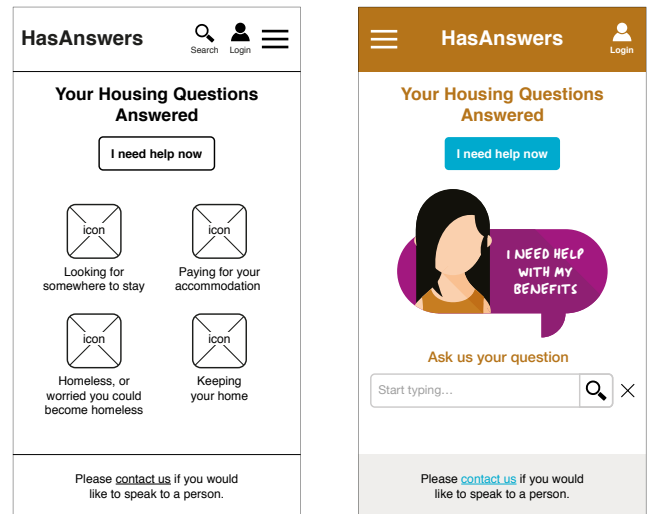


Figure 4. The homepage of an early prototype (left) and the current prototype (right).

young people were using Calman Trust services (User Group 1), and four young people were leaving school and home for the first time (User Group 3). Three participants were living independently. The remaining participants were residing at home: barriers to independent living included anxiety, autism, low confidence, mental health problems, and physical and learning disabilities.

Forty-five young people residing in Inverness and outlying rural areas tested the digital prototype. The sample was comprised of 23 male participants and 22 female, with an average age of 15 years. The minimum age was 14 years and the maximum age was 18 years. Due to timescales, rather than recruit across the user groups, the sessions for the digital prototype took advantage of existing events such as local and regional youth forums. All of the participants represented User Group 3. We did not seek to determine if any of the participants also represented User Group 2 (young people who may need but do not currently have access to independent living support). All of the participants were living at home.

Session 1: Usefulness (Prototype 1)

Session 1 focused on the usefulness of HasAnswers in terms of utility and usability. A sample of paper-based wireflows was presented to participants for high-level review. Wireflows combine wireframes, which convey page layout and content, with flowcharts, which convey workflows and interactions. Each wireflow documented the process of a user working through a common task on HasAnswers, e.g. contact a member of the HasAnswers team. At each step in the workflow a simple wireframe showed the screen available to users and the clickable user

interface elements such as buttons and dropdown lists, and an arrow pointed to another wireframe of what happens as a result of the interaction. In addition, initial concepts for the visual design (colour, buttons and fonts) were presented for review and feedback. Following Session 1, the remaining wireflows were created.

Session 2: Menu Design (Prototype 2)

Session 2 used the updated paper prototype to test how the content had been grouped into categories and subcategories—the categories were accessible from the homepage and main menu. Each participant was given one or two tasks to perform, which involved a realistic activity situated within a short scenario that provided some explanation and context for the task. For example, one of the tasks read ‘You are renting a flat from a private landlord, but have just been told that you are going to lose your job. Use HasAnswers to find out what will happen if you miss your rent or can no longer afford to pay it.’ In performing each task, the participant indicated what s/he would do on each wireframe, beginning with which category they would select on the homepage, while a project team member swapped wireframes to simulate the interface response. Any comments or difficulties were documented. Based on the results of Session 2, the design of the prototype was updated to promote search and move to a flat information structure.

Session 3: Search (Prototype 3)

Session 3 used the updated paper prototype and focused on search. Instead of giving task scenarios, participants were asked to define their own tasks, as a means to gain insight into the topics that target users might search for and the terms they might use. Participants were presented with a wireframe of the homepage and asked to write down what they would type into the search box. To help verify Prototype 3, participants were then presented with the Prototype 2 homepage, and asked to select the category where they thought the information they were searching for resided. Following Session 3, participants’ search queries were mapped against the search index and the Prototype 2 categories in order to compare the two different designs.

Sessions 4–8: Search (Prototype 4)

Sessions 4 to 8 tested the digital prototype with a continued focus on search (Figure 3). The prototype was not yet fully implemented, therefore a lightweight approach to testing was adopted. Each participant was given a worksheet to complete. The worksheet listed the

tasks that were used in Session 2. Participants were asked to perform at least one task using a smartphone (either their own or one provided by the project team) and record the following: the task(s) they performed, their search query(s) and the search result(s) they selected. Members of the project team observed participants as they completed the activity and noted any comments or difficulties. General feedback on the prototype including the visual design was also gathered. Where time permitted, participants were given a sheet of paper printed with the following question, which they were asked to score: ‘I would recommend HasAnswers to young people who might benefit from it’. The possible responses were: ‘No, definitely not’, ‘No, I don’t think so’, ‘Yes, I think so’ and ‘Yes, definitely’.

Engagement with Other Service Providers in the Field

In parallel with engaging with young people, there was continuous engagement throughout the project—in the form of discussions—with services in the Highlands of Scotland (n=9) that have an interest in/responsibility for supporting young people to achieve an independent adulthood. The primary purpose of the discussions was to explore whether other service providers in the field might consider using HasAnswers with their client group: as a means to increase the scale of HasAnswers to promote equity of access to housing advice and support, particularly for those living distant from services in the Highlands; to explore options for future commercialization, e.g. franchising and license agreements; and to gather other service providers’ thoughts and feedback on the aims, content and design of HasAnswers. The services engaged with included housing and homelessness services, education and social work services, youth services, and advice services.

RESULTS AND DISCUSSION

Engagement with Young People

Eight participants took part in Session 1; five participants in Session 2; four participants in Session 3, three of whom had taken part in a previous session; and 45 participants took part in Sessions 4–8. Throughout the sessions, participants were enthusiastic about HasAnswers and made positive comments.

Session 1: Usefulness

Participants’ responses to the wireflows were positive. In terms of utility, everyone considered HasAnswers to be something that they would use and find useful. Several

participants commented that the topics read well because the information was clear and concise, which they said was important. All participants considered an audio version of the topics to be beneficial, although only one participant had experience of using audio to access information from a website. Everyone liked the 'Save for later' and 'Take a screenshot' features; several participants commented that they regularly share screenshots with friends. Participants also gave positive feedback on the 'Me' area, as a useful facility to store and share information. Some suggestions for design improvements were offered. For example, enabling users to share their experiences of HasAnswers "*so people have confidence that they could be helped by this site*", and adding a rating system for the topics such as a thumbs-up/thumbs-down rating system, "*to make users trust more in it*". In terms of usability, all participants commented that the prototype looked easy to use and navigate. Everyone was familiar with the standard design elements used, e.g. the hamburger menu and form controls such as dropdown lists and radio buttons. Participants gave useful feedback on concepts for the visual design of HasAnswers. In particular, the majority of participants preferred a flat-ish design over 3D effects, and a sans-serif font for headings over a serif or handwritten font. Several participants commented that the aesthetic should be appealing to young people but should not be too "*light-hearted or childlike*" and "*less serious or professional*".

Session 2: Menu Design

Two participants completed two user tasks; the remaining participants completed one task. All participants considered HasAnswers to be useful. However, none were able to complete the task(s) without assistance due to their navigation choices. I.e. participants did not always select the category or subcategory where the information resides, suggesting that the standard web practice of grouping topics into categories and subcategories may be problematic for some of the target audience. Indeed, a challenge of the project has been structuring the content—the topics being so interrelated that it is possibly nonsensical to separate them out into navigation categories. A card sorting method [9] was considered, involving working with young people to group the topics into categories that make sense to them. However, Calman Trust's experience of working with young people is that the results are unlikely to be generalizable, as some young people will always struggle to relate the information they need with a particular heading (category). Hence, the challenge is to present information

from the young person's perspective, amenable to easy interrogation, not from the perspective of the service provider or assumption that the young person should know how to engage with the professional world as structured. Otherwise, one participant with severe ASD commented that while the content of the topic that he found and read was "*good and important*", it was "*too strong*" (complex). This underlines the importance of ongoing work in developing content that will enable as close to universal access as possible, whilst acknowledging that a minimum level of capability in terms of literacy or understanding will be required to use HasAnswers effectively. No other problems were identified.

Session 3: Search

Participants' responses to search were positive. Everyone considered the sample search queries to be helpful, in giving clues about what to look for and how to create their search query. Although one participant commented that the query 'What is a tenancy agreement?' was not personally helpful, as they were unsure what was meant by 'tenancy', underlining the importance of not driving the site by professional knowledge of the content, but rather presenting information from the perspective of what the young person is experiencing and needs to know. Participants' search queries produced a succinct results list of one to three topics, with mixed success: some topics were on-target and others were not, indicating the scale of the task involved in manually creating a search index. Although it is important to note that the search index used during the session was a first draft. The results support the findings of Session 2: grouping topics into categories is potentially problematic as participants did not always select the category where the information resides.

Sessions 4–8: Search

Participants' responses to search were likewise positive. Sessions 4 to 8 were conducted as soon as practical using the digital prototype, as it was anticipated that participants would behave differently to using the paper prototypes, and it was easier to test the workflow and user interface elements. The search index had not yet been updated following Session 3, therefore as expected, participants' search queries produced a results list with mixed success. However, testing with a larger cohort provided some useful insights and examples of search queries, with which to progress the search index. For example, one participant asked "*How old do you have to be to get a house?*" and another asked "*Who can I try renting a*

property from?” Both are reasonable queries, but for which there are currently no answers in the system. A single participant struggled to formulate a search query, and another participant was unsure whether they should use the search box or click one of the sample queries/avatars to find the information they were looking for. No other problems were identified. Several participants commented that they found the answer they were looking for quickly and that the topics were clear and helpful. Some suggestions for design improvements were offered, such as the use of videos and images to complement the text. Also, while the overall response to the visual design was positive, one participant commented on the homepage “*blonde boy needed*”—indeed, it had gone unnoticed that the hair colour of each avatar was black—and one participant commented that the colour palette should be brighter. Nineteen participants answered the question ‘I would recommend HasAnswers to young people who might benefit from it’: 10 (53%) participants responded ‘Yes, definitely’ and nine (47%) responded ‘Yes, I think so’.

Engagement with Other Service Providers in the Field

The feedback from discussions with services that have an interest in/responsibility for supporting young people to achieve an independent adulthood has been to consistently confirm the potential benefit of HasAnswers as a response to the duty incumbent on these agencies in terms of service delivery to young people in the Highlands of Scotland. Specifically, the benefits are described as: capacity to reach young people in all areas; the potential of HasAnswers as a supportive learning tool for young people preparing for their first independent home; a means to achieving early intervention and prevention of breakdown leading to homelessness; a means to ‘triage’ young people, potentially to divert them from waiting in a complex system towards speedy resolution or direct engagement with the specific service(s) they need; and affordability and cost savings for statutory services.

Service providers advised that HasAnswers should restrict its focus to the housing related issues identified. It is regarded as important that a clear identity is established, that young people can be referred to HasAnswers with a simple message about how this can help, and that young people have a simple message to share with their peers. It is however said to be important that the tool should have the capability to evolve, as the needs of young people change in future. It is also considered important that the digital information is backed up by the ability to contact a person, to respond to emergencies, provide support where the young person

requires further help, or to connect young people with service providers in their own area. Views differed on timings, but the majority view was that this would be ideally a 24-hour service, in order to respond in real time to young people’s concerns, including young people feeling under particular pressure.

The service providers confirmed that HasAnswers is a tool that they would consider using with their client group. The ‘Me’ area is considered to be a valuable feature, with potential to manage more effectively the relationship between support worker and client, particularly through its individualization. Service providers also indicated that they could envisage using HasAnswers as an experiential training tool to upskill their support staff. From the point of view of service commissioners with statutory duty, the relevant local authority teams indicated that use of HasAnswers can potentially meet their duty to serve young people in all parts of the area, and with a focus on prevention. From this perspective, it could be reasonably encompassed in future service commissioning.

Summary of Insights

This section presents a summary of the insights derived from the research and the experience and expertise of Calman Trust in providing a housing service to young people including homeless young people:

- Supporting young people to find and keep an independent home is an important but under-researched area;
- A major challenge for a mobile user interface is presenting information from the perspective of what the young person is experiencing and needs to know, rather than the perspective of the service provider, or assumption that the young person will know how to engage with the professional world as structured. This was seen in the difficulties that most participants in research sessions 2 and 3 had relating a particular heading (category/subcategory) with the information they needed;
- An additional challenge is designing for different groups of young people, some with specific challenges to independent living such as autism and learning disabilities, and possibly demarcating the minimum level of capability required to use a mobile service effectively. In particular, this was seen in the difficulty that a participant with severe ASD had in understanding content;
- Finally, HasAnswers demonstrates how a search interface can potentially address the challenge of

supporting young people to navigate to the information that they need.

LIMITATIONS

Fifty-nine young people representing User Group 1 (young people who are using Calman Trust services) and User Group 3 (young people starting to think about and/or leaving school and/or home for the first time) participated in the research sessions. Those young people using Calman Trust services are amongst the hardest to reach and typically have experience of other services, and for this reason, the engagement achieved is of particular value in preparing for wider use. A limitation of the work is that young people representing User Group 2 (young people who may need but do not currently have access to independent living support) were not recruited to participate in the research sessions, mostly due to timescales. However, at regular intervals through the project Calman Trust support workers worked through the potential use of HasAnswers with another 60 young people who use the Charity's services, including young people identified as particularly vulnerable or at risk of homelessness (equivalent to User Group 2). While impressionistic, the feedback has been consistently positive: those young people reported that HasAnswers is something that they would use and find useful, and that would allow them to know what to do to better manage independent living.

An additional limitation is the gender imbalance in the paper prototyping sessions (research sessions 1–3), where only one participant (out of 14) was female. This was due to the group of young people available to participate in the project comprising more males than females. In particular, at the time of the project more males than females were using Calman Trust services to make the transition to independent adulthood. Therefore, the results of research sessions 1–3 may be less representative of the target population than is desirable. However, a roughly equal number of male and females participated in the digital prototyping sessions (research sessions 4–8).

CONCLUSION AND FUTURE WORK

Many young people experience difficulty finding and keeping an independent home, which can lead to homelessness or risk of homelessness. Drawing on its extensive experience of delivering a housing support service, Calman Trust has distilled the essential information that a young person will require into a mobile

service called HasAnswers. This paper provided a description of HasAnswers, the results of iterative testing with young people, and feedback from other service providers in the field. While preliminary, the findings have been consistently positive, particularly in terms of usefulness and acceptability, with the service providers engaged reporting that HasAnswers is a tool that they would consider using with their client group. The research contributes to the body of work within HCI on design for independent living and design for homelessness. In particular, the paper contributes new insight into the challenge that some users may experience navigating to the information they need, and an approach to address the problem that has been embedded in HasAnswers and preliminary tested with positive results. The aim to create equity of access to essential information for young people irrespective of their proximity to a face-to-face support service is not unique to Calman Trust. Potentially, a mobile service could be explored by other researchers and practitioners in the UK or overseas.

Future Work

Next steps include applying the results of the latest user testing to the HasAnswers prototype and refining the search index. Future work will include: continued testing of the functionality and content of HasAnswers including an in-depth evaluation of the 'Me' area; improving the search facility/accessibility of HasAnswers by enabling advanced voice recognition capability; and developing dedicated Android/iOS apps. For the development methodology outlined in this paper, a web-based service was more appropriate, e.g. there was no need to release an update of the app each time it was iterated (a web-based service always has the current version), and the development time and cost was significantly reduced, with no app developer license costs. However, with Apple's policy towards app development changing significantly during 2018, the production of Android/iOS dedicated apps is more realistic and achievable. Other future work will include mainstreaming HasAnswers into the Calman Trust service and scaling up, involving developing the business model so that HasAnswers is replicable for new geographical locations and organisations.

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