UX Content
Design Report: Walking Application

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Contents

Introduction & Background

Recreational walking is one of the most popular activities for people taking days out in the England, with 22% of the population (around 20 million) walking recreationally for at least 30 minutes every four weeks (Walking facts and figures 2: Participation in walking, 2016). The research also suggests that '39% said they would walk more if they knew the most appropriate walks' and the main reason they didn't use routes was lack of time and lack of awareness of what was available locally.

There are currently a number of different walking resources available to try and help the user find walks. These come in the form of maps, walking books, websites and apps. The key question is 'how well do these resources match the needs of the recreational walker when exploring different walking options?'

When studying current apps available on the Apple app store, there are a different approaches to the design. Surprisingly a lot of mobile walking applications did not include photos of the walks. Also, surprisingly, the 'Ramblers' Medal Routes' shown in figure 1, does not inform the user of the walking distance. Even when a photo was used as a cover image, as shown in figure 2, with iFootPath, the question had to be asked, 'what does this photo tell me about the walk'?

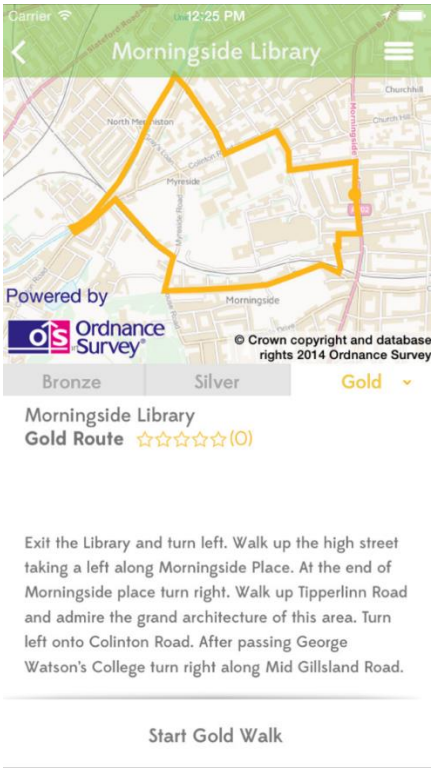


Figure 1 - Ramblers Medal Route

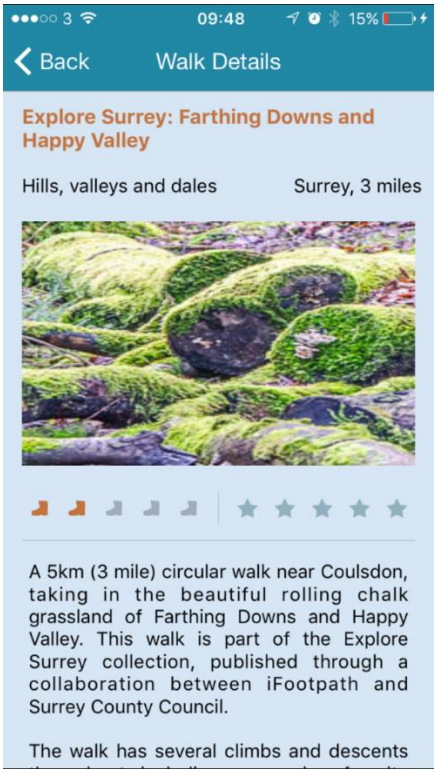


Figure 2 - iFootPath

A broader review of the different resources show they apply a very different approach to providing the information, for example, when using a walking book the main method for delivering the walk details is in writing, with a few images, and the map is often more of a supporting feature. This compares to mobile applications where more emphasis is given towards the map with short written descriptions and photos used in support of the map.

Aims

The aim of this project was to improve the ability for users to find walks which suit their requirements as well as increasing the ease of navigation when carrying out a walk.

The main objective of this project is to assess the use of ubiquitous technology to enhance the user experience when finding a walk and when carrying out a walk. To accomplish this, an understanding of the user requirements, goals and pain points had to be researched and a user centred design process had to be implemented to ensure that the final prototype matched the user requirements.

To assess the user requirements when searching for a walk and carrying out a walk an inductive research method was carried out. The following research data collection methods were carried out:

- **Survey**: To get an initial understanding about the main pain points and opportunities
- **Observations**: To observe how the participants carry out the walks
- **Interviews**: To gain an in depth understanding of potential pain points
- **Focus group**: To discuss the pain points and opportunities in a group setting

The research looked to establish the different personas, considering the different pain points and opportunities, which would help build and establish the user journey.

Using the information collected from the research, a prototype was developed to reflect on the insights learnt throughout the project.

Prototype: Aims and usage

Usage

As well as the prototype, a video has been produced which highlights what issues have been addressed and how they have been redesigned. To access both the prototype and video, please do the following:

- For the prototype, please launch the index.html, which is located with the TreXplore Prototype folder.
- For the video, please launch the TreXplore.mp4, which is located at the root directory for the folder provided.

Using the prototype the following tasks are supported:

1. Search and discover walks around you. For this prototype the location is set to Basingstoke
2. You can go all the way from starting the walk to stopping the walk. The maps are not interactive for the purpose of this demo.

Aims

The primary aim for the prototype is consider the effectiveness of the design to support the user being able to identify walks that they would consider carrying out. The secondary aim for the prototype is to illustrate how the design would allow the user to carry out a walk. The required key confirmations from using the prototype would be:

- Is the prototype is easy to use?
- How effective is the quick reveal feature?
- When the user searches for a walk at what point would they be confident about the options?

- When reviewing the walk details, is the information in the correct order?
- To what extent does the user actively want to identify the latest information when viewing the walk details?

The key insights and the measurement of success for this prototype would be the following:

- Does the prototype enable the user to quickly identify a walk they could potentially wish to carry out?
- Are there any pain points when using the prototype to discover the walks?
- While an advanced prototype would be developed to establish the success for the features when carrying out a walk, it would be important to get early insight of whether the design could be effective.

It would be interesting to identify effectiveness of the on boarding e.g. does it have a negative or positive effect. It would also be important to identify how well the quick reveal feature works - does it cause any frustration.

Project Process

The main focus for this research project was to understand how the users carried out the tasks with the existing systems in reference to walk guides and the use of internet to find walks. It was important to gauge the user's requirements when considering recreational walks before the implementation of the prototype.

While the prototype design could be a standalone product, it has been designed with the intention that it will serve as part of a larger application that would also support the user being able to create walks as well. Additional studies would be required to test an advanced prototype in the wild to identify how effective it is at supporting the user when carrying out a walk. It would then need to address how the user can capture and record walks for the walking community.

User Research

Process

To establish the personas and user journey for the walking application, research had to be undertaken to consider the user requirements based on pain points and opportunities. It was important to use a mixed method triangulation approach to process reliable findings to create the personas and user journey. The following data capture methods were utilised:

The Survey

The initial concept for the application came from personal experience. It was important to get wider user feedback to see if the same beliefs were held by a majority or if there were any other opportunities that had not been considered. The use of an online survey was used to collect 39 participant views on walking. It also provided the benefit of highlighting the importance of certain features that would influence the design process.

Producing the survey online meant that it was quick and easy to distribute. It also meant that is easy to review the results. Below highlights some of the questions used and their results:

Q: What are your main motivations for going on a walk?

	Score*	Overall Rank
Pleasure	168	1
Explore	123	2
Fitness	108	3
Social	104	4
Challenge	82	5

Table 1

Using a form of card sorting the users could organise their motivations for going on a walk. The initial inspiration for this application comes from the majority of applications focusing on fitness and seeing an opportunity that would focus more on the pleasure and exploring aspect of walking. The results above confirm the thoughts behind the initial concept, with fitness coming in third.

Q: How do you search for walks?

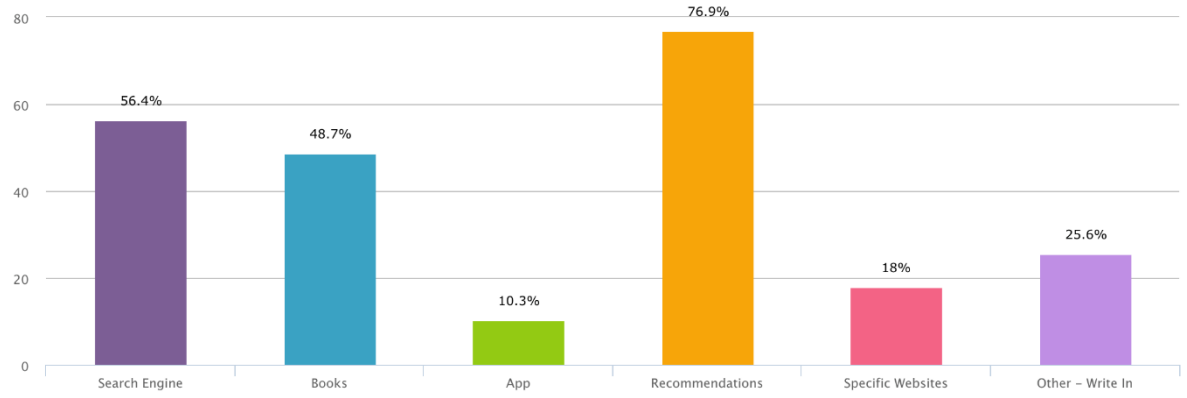


Figure 3

The results above show a clear need to help the user to identify walks with the use of recommendations.

Q: Do you use any of the following tools or supports when out on a walk?

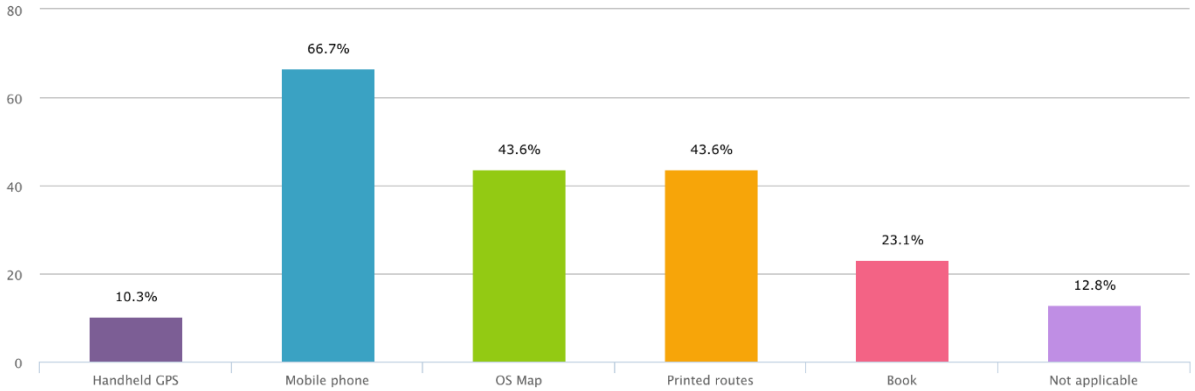


Figure 4

When the participants were asked which tools they used when out on a walk, the greatest percentage of participants use a mobile phone on a walk, in contrast referring to how users search for walks in the previous question, where the use of mobile phones scored the lowest.

Q: When considering going for a walk what are the most important factors you take into consideration?

	Score*	Overall Rank
Distance	353	1
Scenic	335	2
Terrain (muddy,steep etc)	318	3
Average time	306	4
Recommended	279	5
Points of interest (View points, historical, nature etc.)	264	6
Facilities (pub/restaurant/picnic area)	239	7
Signposted (waypoint trail, footpath etc)	230	8
Difficulty Level	217	9
Dog friendly	191	10
Family friendly	167	11
Detailed Guide Available	143	12

Table 2

The most important factors for participants when considering a walk again supported the initial concept of importance of pleasure and exploring with scenic coming in second. Personally it was surprising to see 'detailed guide available' at the bottom of the table, but this does highlight that users would properly prefer to be able to carry out walks without having to read a guide to carry it out, possibly because of the cumbersome nature of most hard copy guides..

Walking with the 'enthusiasts'

To develop a rich understanding of the needs of the recreational walker it was important to consider some of the 'enthusiast' cases. For this the ramblers provided a perfect opportunity to consider what the important factors are when large groups carry out organised walks. The initial process was to engage with a ramblers' group to ask permission to join them with one of their walks. When carrying out the walk it offered opportunities to observe what happens before and during the walks, as well as an opportunity to carry out unstructured interviews with the group leader and a couple of the participants. Consideration was made around whether carrying out the interviews during the walk would have an influence on the observation, but conversing is part of why people enjoy walking in groups. Doing the walk at the same time also offered inspiration for different areas to cover. The walk was also around 3 hours long which also meant that the interviews only counted for a third of the time. Once the walk was complete, notes from the day were written down.

Main Questions:

1. How do they organise a walk?
2. What considerations do they think about when organise a walk with a large group?
3. How do they identify the walks they want to go on?
4. What are the main challenges they find organising a walk?
5. What are the main challenges they find undertaking a walk?

Main findings:

1. The leader has to walk a route the week before to make sure that there are no issues en route
2. Parking is a big consideration when organising a large group
3. Identifying good places to stop for lunch or restrooms en route is essential
4. When is sunset - to make sure everyone is back before dusk
5. Average walking times are important and terrain must be considered with that
6. Seasonal variations are important as certain scenic features are not visible at certain months of the year

Walking with the 'occasional walker' group

The second trip was with an occasional walking group, which would be a closer match to the potential target audience. The group followed a path which was printed out to help provide direction. Similar to the ramblers' walk, the walk was used as an opportunity to observe the group as they carried out the walk. Once the walk was completed the group came together to carry out a focus group, discussing the main pain points and the opportunities that existed with recreational walking. It was important not to influence the responses and allow the participants to express the different opinions.

The original plan was to use the focus group to carry out a design thinking session, which would include creating pain points on post-it notes with the participants then acting as a group in affinity mapping the issues. This would then lead on to getting the participants to consider the opportunities for the walking application. This did not go to plan as the focus group was done in a country pub. However, this element was done at a later date with one of the walkers, who had been on both of the walks.

Main Questions:

1. How do you search for a walk?
2. What are the main challenges in searching for a walk?
3. What are the most important factors when considering which walk to undertake?
4. What opportunities are there for improvement?
5. What are the challenges when undertaking walk?

Main findings:

1. Searching for a walk often took up a lot of time and multiple sources were used before deciding on which walk to undertake
2. Route information too subjective from the walk creator especially with regards to walk difficulty ratings
3. Not enough visuals were available in search results
4. Navigating walks is difficult with print outs walkers often try and use their phone but it's not easy to identify exactly where they are on the walk
5. They may be completely unaware of obstacles/seasonal issues which effect the walk (e.g. Flooded sections and fallen trees)

Post-it Notes with one of the walkers

From the research collected and working with a participant who had been on both the ramblers and occasional walker group, we set out to establish and affinity map the main pain points and opportunities. The benefit of using the post-it-notes allowed greater flexibility for ideation, with the encouragement that the more extreme the concept the better contribution to the design process. The output from this session can be viewed in the appendix.

Personas

Four personas for recreational walker have been created with an amalgamation of the following data:

1. Survey, based on the data provided by the participants
2. Observations
3. Interviews & Focus group

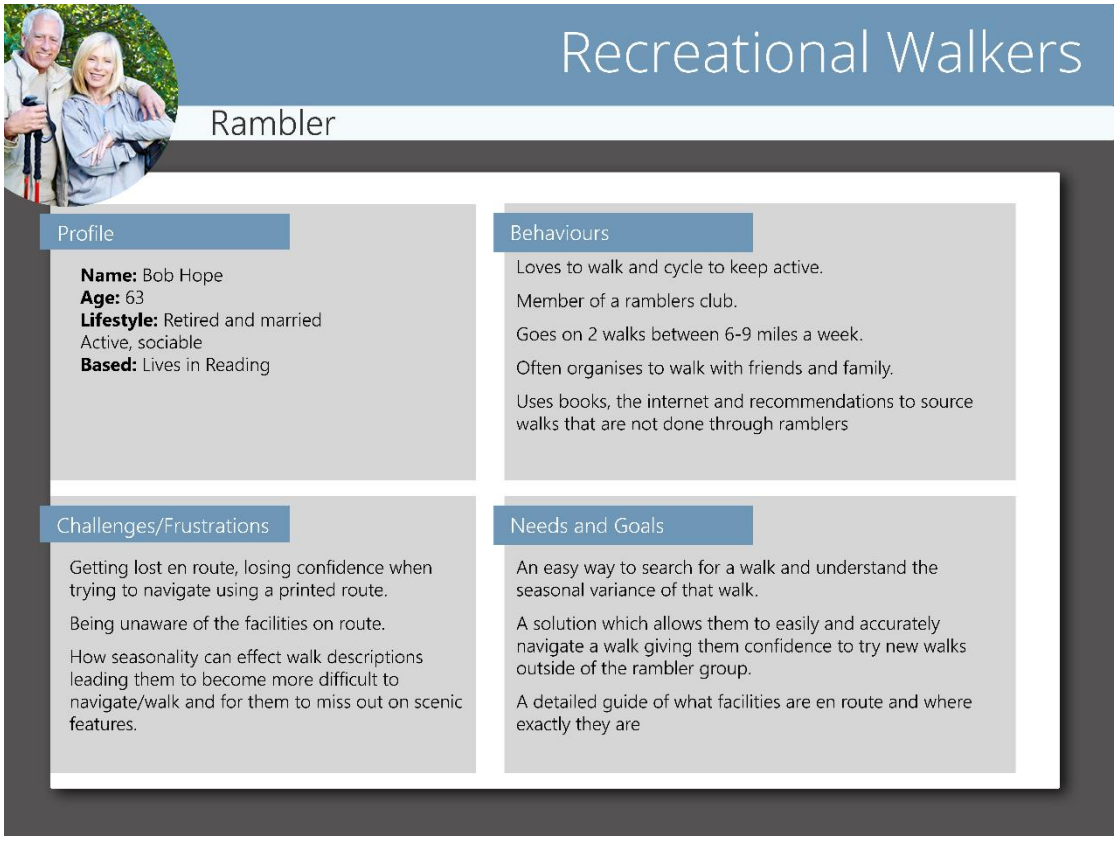


Figure 5

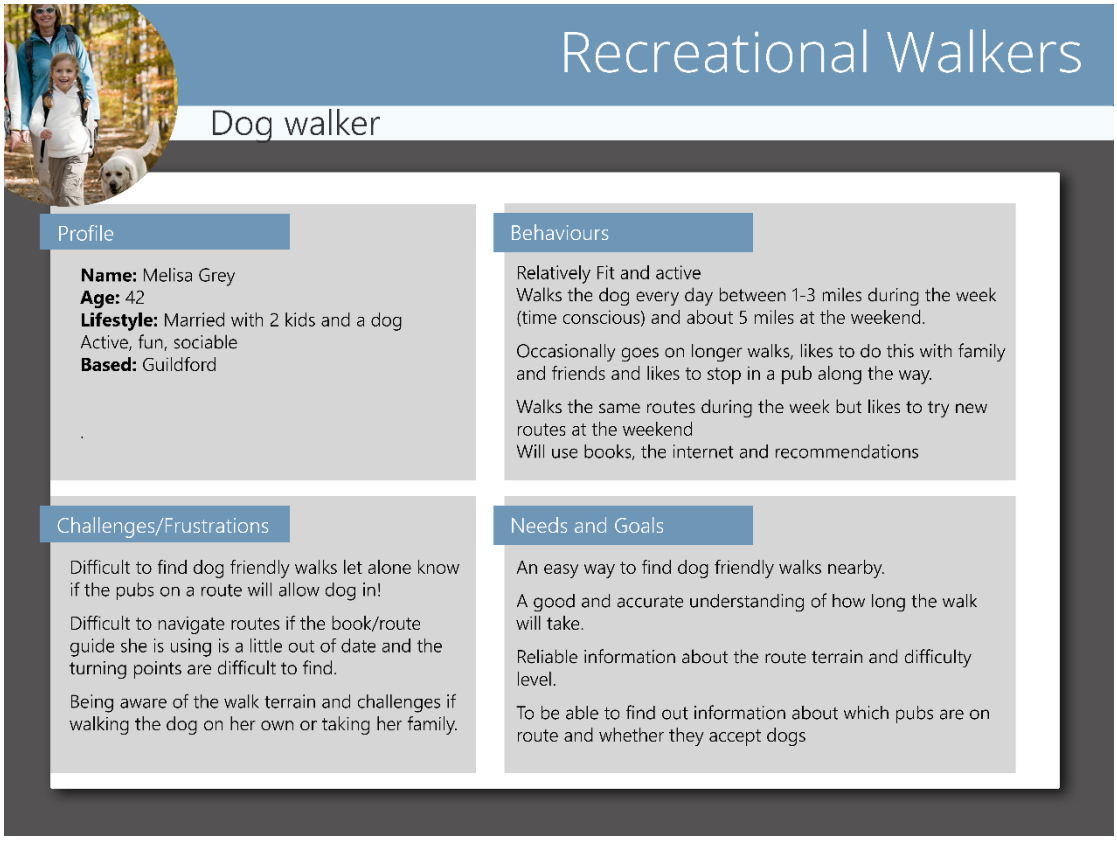


Figure 6

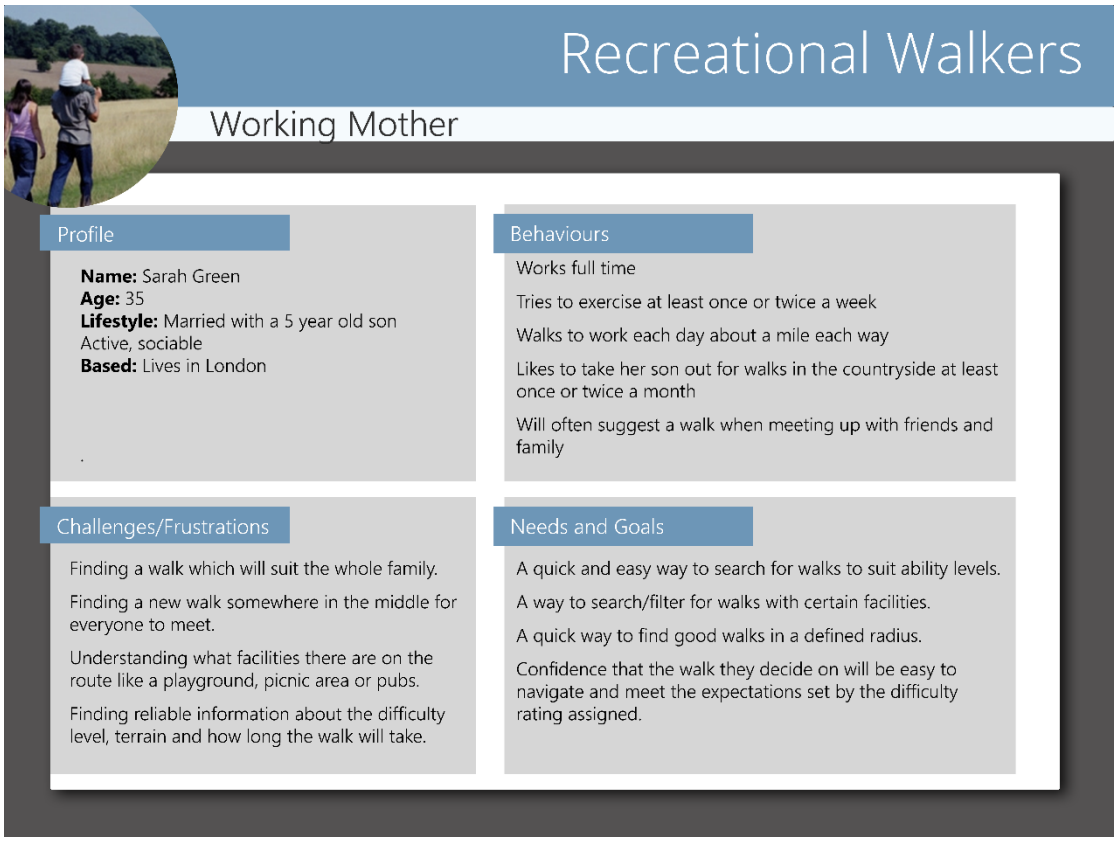


Figure 7

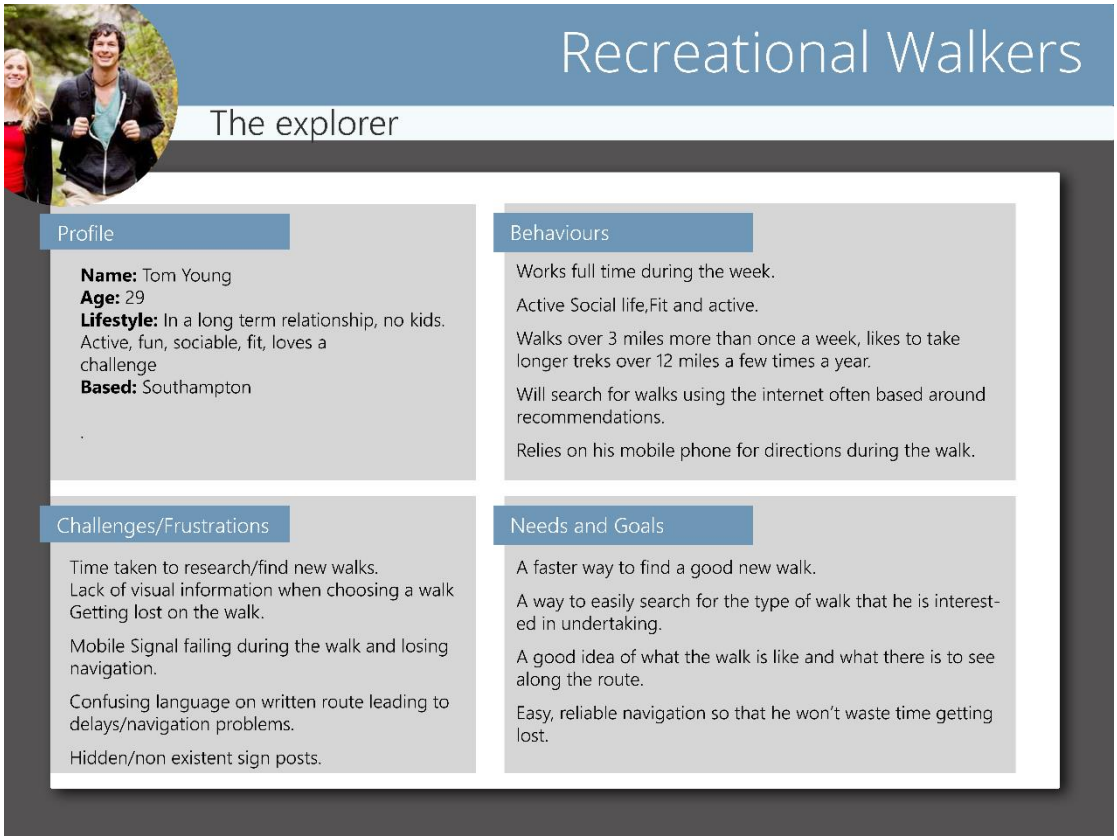


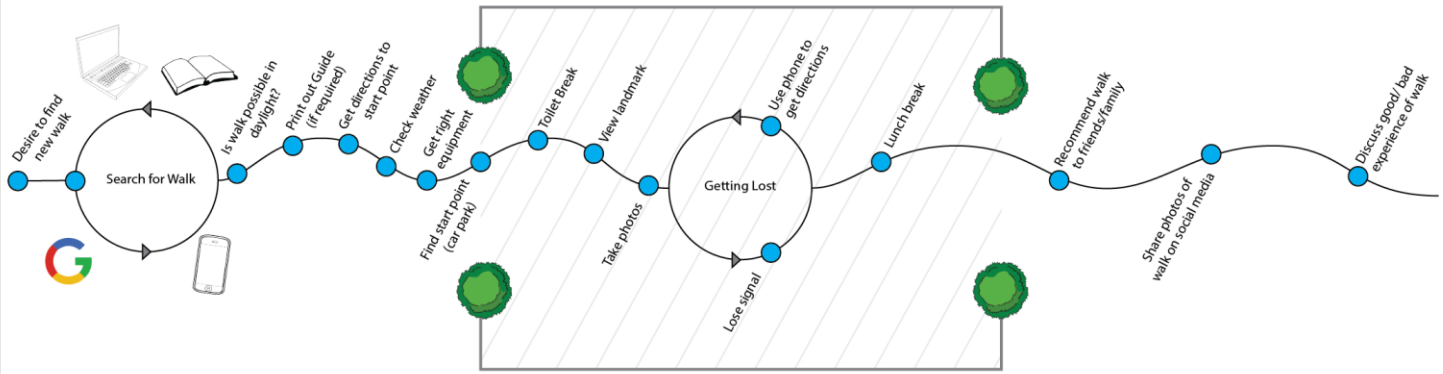
Figure 8

User Journey

The user journey shown in Figure 9 has been created using the personas, research carried out as well as secondary research. It highlights the different touch points used through the journey as well as common thoughts, feelings and pain points. Based on these findings it include opportunity to enhance the experience throughout the user journey.

Figure 9

Walking User Journey

Stage	Find a Walk	Carry out Walk	Feedback & Recommendations
Actions			
Touchpoints			
Thoughts	• Where is the best place to find a walk near me? • How do I find a walk that suits my preferred distance and time? • What is the weather going to be like for the walk? • What is the terrain going to be like for the walk? • What factilies are there on the walk? • How do I get to the start? • Is there parking near the walk?	• Where do I start from? • How long will it take? • Where is a good place to stop? • Is there anything I should be aware of? • Where am I now? • When do i need to turn? • How far am I from the end?	• How did i find the walk? • How would I rate the dificulty? • Would I reccommend the walk? If so who to? • What was the best part of the walk? What should other walkers be aware of?
Feelings	• Frustration when trying to find walks • Confusion surrounding which source is best to find a walk • Uncertainity in what to bring for walk	• Motivating seeing the different views • Frustration with getting lost on the walk	• Satifisfyied when completing the walk • Tired if just completed a long walk
Painpoints	• No one stop shop for finding walks • Not enough up to date information • Information is subjective • Descriptions are dificult to navigate from • No clear understanding on where exactly you are during a walk	• Finding the start • Missing turn points • Confusion on exactly where you are on the route • Getting lost • Spending a lot of time reading the description of the route	• No large source of user generated review content related to walks
Opportunites	• Simlifying the search for walks • Crowd sourcing reviews to keep subjectivity in line • Privide a simplified, enhanced navigation journey • Provide up to date information	• Easy navigation to start of route • Step by step instructions on where to go • Dynamic map on where excatly you are on the route • Clearer instructions and visual prompts on where to turn	• Prompt walkers to leave feedback • Ask them to include photos to help with their review • Ask them to report problems or alert others to significant changes on the walk

Design and Prototyping

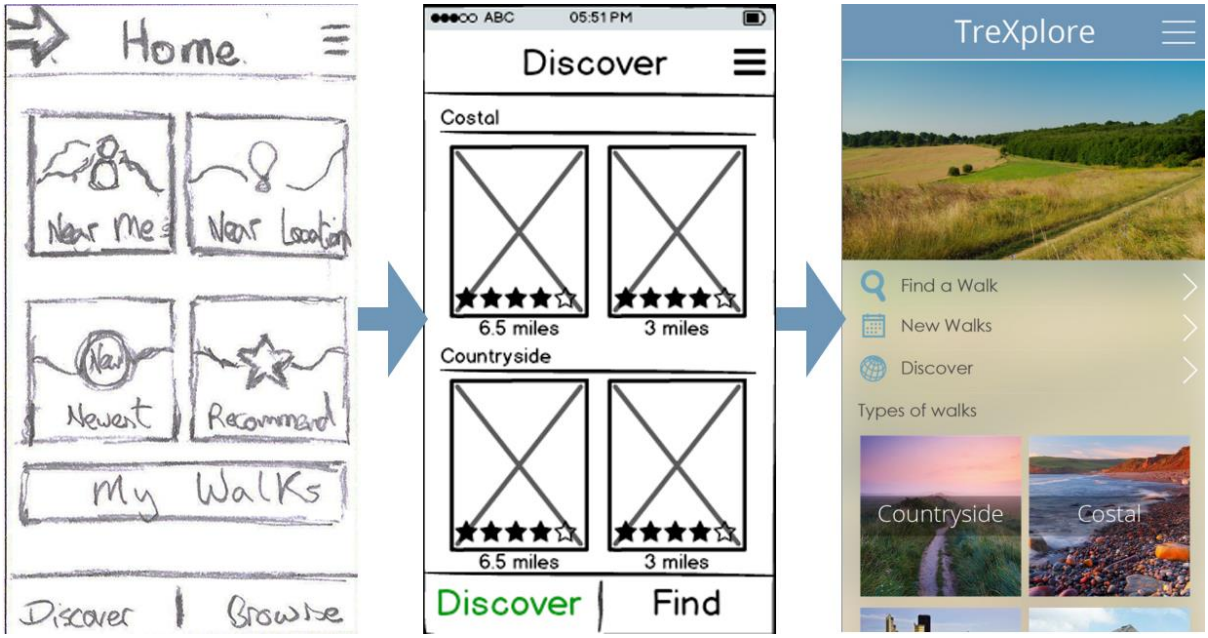
Process

To ensure the prototype was designed using a user centred approach, the user's assessment of the design throughout the design stages was vital. The development of the prototype and user feedback was broken down into the following stages, which ran in parallel with the research:

- Creation of the Paper prototype, uploading it to an app called POP (prototype on paper). Initial reviews were carried out with the 'occasional walkers' focus group
- Development of high fidelity designs. Initial designs were created in Photoshop and Illustrator.
- The prototype was completed in Axure.
- Formative Evaluation. A One on One interview was carried out with the participant using the prototype to capture any major issues with the prototype.

Prototypes

The process to develop the prototypes was to ensure that the user requirements were always at the centre of the design process and to provide feedback from the early stages. Technical concerns/challenges were not brought out until the later prototype, to try and encourage innovation in concept and designs. The following outlines the different prototypes created at the different stages of the project:



Early design stage

Reflection and adaption based on user feedback

Final design Concept

Figure 10

Early design stage:

- Paper prototype

Reflection and adaption based on user feedback:

- Balsamic prototypes

Final design Concept:

- High fidelity prototype design created in Photoshop and Illustrator
- Final designs implemented in to Axure

Formative Evaluation

Aims

To identify if the prototype would match the requirements for the user when trying to find a walk and when carrying a walk. It was also to record issues raised, to create recommendations for further iterations. Formative evaluations were carried out at two stages of the project, during the paper prototype design and high fidelity prototype**.**

Participants

Due to lack of budget, participants were selected from a pool of friends. This was the quickest and most cost effective method to complete the formative evaluation on time. Using friends and family could be seen as potentially biased, with more positive feedback than if using completely unknown participant who would not be concerned about the impact on saying something negative. To try to address this potential bias the participants were encouraged to be open and it was important to highlight the value of their feedback to help deliver the best experience for the users moving forward.

Paper prototype evaluation participants

Participant ID	Gender	Occupation	Age	walking frequency	Most important factor	Likes to walk for
P001	M	Marketing Specialist	25-34	Twice a month	Distance	Pleasure
P002	F	Graphic Designer	25-34	Weekly	Scenic	Pleasure
P003	F	Wedding Planner	25-34	Monthly	Distance	Fitness
P004	M	Developer	34-40	Weekly	Terrain	Challenge
P005	F	Product Manager	25-34	Monthly	Scenic	Challenge

Table 3

High fidelity prototype evaluation participants

Participant ID	Gender	Occupation	Age	walking frequency	Most important factor	Likes tio walk for
P001	F	Product Manager	25-34	Monthly	Scenic	Challenge

Table 4

Materials

Paper prototype evaluation - Focus group

Equipment
The following materials were used to carry out the formative evaluation:

- Pen & Paper, used for focus group & interview
- POP (Prototype on Paper)
- Mobile phone (iPhone 6)

High fidelity prototype evaluation - Interview

Task Instruction Sheet
The instruction was used to provide the participant the information to carry out the main tasks on the prototype. The task sheet encourages the participant to read the task fully. Once they have completed the task they are encouraged to leave feedback using the online questionnaire.

Interview sheet
The interview followed a structured method. It was important to gain insight on the different aspect of the user interface. The interview sheet was used to help promote the moderator to ask the different questions and to capture the responses.

Equipment
The following materials were used to carry out the formative evaluation:

- Pen & Paper, for notes
- Laptop for Axure Prototype

Procedure

The following procedure was carried out in the formative evaluation at the different stages of the design:

- **Paper prototype evaluation - Focus group**
  Initial sketches were reviewed using Prototype on Paper - this was organised to coincide with the group walk. It was important to only show them the prototype after the initial feedback from the participants to ensure that the paper prototype did not affect the responses from the participants. The prototype was delivered using an iPhone 6 and the participants were able to interact with the prototype on a basic level using Prototype on Paper application. They were encouraged to provide feedback as they went through the prototype. The results helped guide the redesign process to address the user needs.

- **High fidelity prototype evaluation - Interview**
  The high fidelity prototype included much greater interaction than the paper prototype so it was important to identify if the new prototype would still meet the user requirements and that no user experience issues were brought into the design. The participant was invited to try out the prototype, with instructions to help the participant identify what tasks they should try and carry out. Once the user had finished with the prototype, an interview was carried out to establish how well the prototype perform. The interview response was recorded using a pen and paper. The interview questions can be found in the appendix. The results highlighted two changes to design that are discussed in the design rational section.

Research discussion

The main focus for the research for this project has been to understand what are the needs and pain points for users utilising the current systems. The research carried out with the Ramblers proved to be extremely effective in to getting exposure to issues and needs that would otherwise not been considered. The study into current systems also involved understanding what tools participants would use when carrying out a walk. While most people do not currently use mobile applications to carry out walks, it would have also been interesting to carry out a study with participants using one of the applications. To continue this project, this would be an effective way of gaining additional insight before developing an advanced prototype to test.

Further formative evaluations would be useful with a wider range of participants. Ideally this would be done using Axshare and sending out a link to the prototype.

Design Rationale

The purpose of the designing the prototype was to enhance the user journey when searching and finding walks. The main focus for the design has been to enable the user to gain inspiration and create greater awareness of walks around them. Emphasis has therefore been given to providing quick insights into the walk in as few steps as possible. This is to encourage the 39% of users who would walk more if they knew what was around them (Walking facts and figures 2: Participation in walking, 2016).

The design decisions throughout the development process involved the use of primary and secondary data from the research phase. The use of style guides were also used to guide the design. The following influential design decisions were considered during the design process of the prototype:

User login & creating an account:

At the early stages of the project it was considered important to allow the user to have the opportunity to create an account and to sign in at the beginning of the application. Then the account would be used to allow the user to leave a review of the walk, store their preferences remotely and would eventually be used to allow the user to create new walks themselves. Figure 11 shows some high fidelity designs for the login.

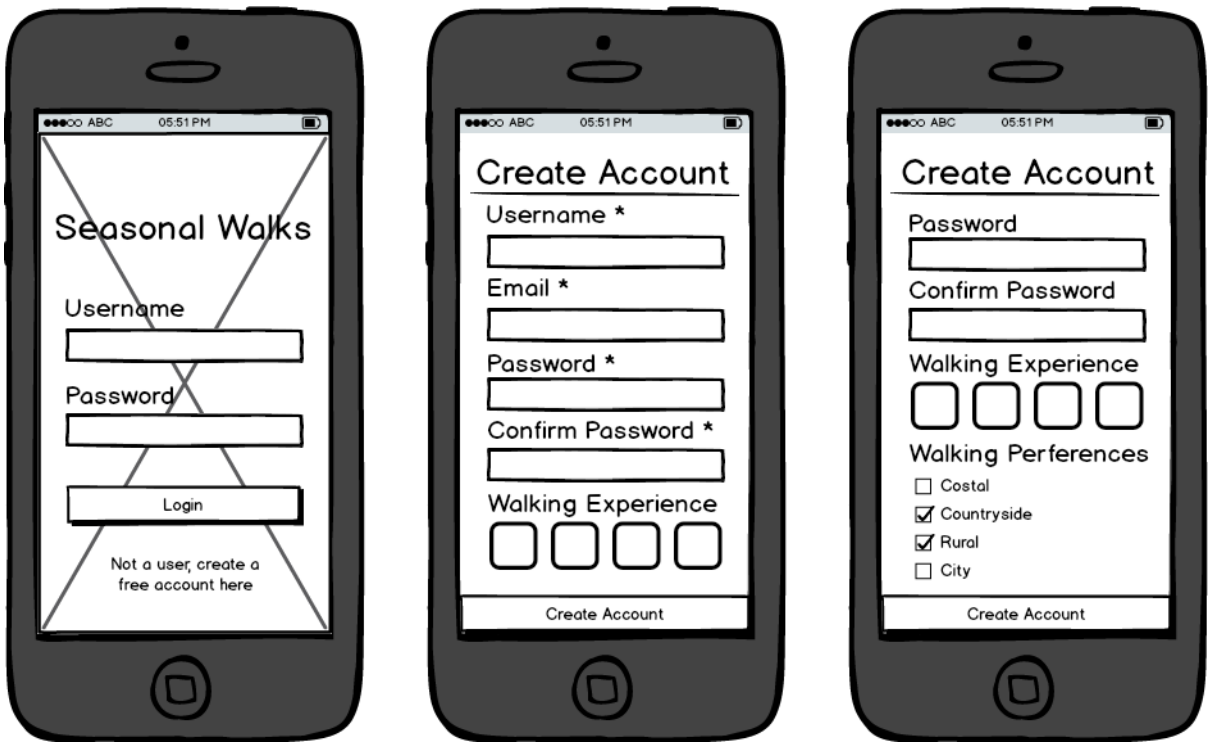


Figure 11

However, when reflecting on the Apple style guidelines, it states to *"delay a login requirement for as long as possible, as users often abandon apps that force them to log in before they can do anything useful'* (Developer.apple.com, 2016).

While there are recommendations if a 'user login' at the start is required, for this application, the question had to be asked why does it have to be at the start and is there another way it could be implemented? This application is about making the content accessible, having a login form at the start, could put a barrier up straight away.

The decision was made to change the login approach to only be introduced when the user is interested in using one of those features that would require a login. This application does not currently cater for the need to create walks, but when the user finishes a walk they are given the option to create an account or to sign in to leave a review. Given that the user has already invested a considerable amount of time in using the application and looking at previous reviews, they would be able to relate to the benefit of signing up.

Onboarding experience:
"Onboarding is not a substitute for good app design" (Developer.apple.com, 2016). It was important to consider why the use of an onboarding process was required. The main reason why this application design utilises the onboarding process was to support the use of the new 'quick reveal' feature.

It also gave an opportunity to provide some information about of the other important features within the application, such as gaining insight into walks with the latest information and to download an offline version of the walk. Based on Apple's style guide the following features have been implemented:

- Using interactivity to engage the user and to help them “learn by doing”. The ‘quick reveal’ feature page provides a demo for the user to try out the feature, a tick is shown to provide feedback once they have successfully completed the task, shown in Figure 12.
- It is easy to skip using the skip button at the bottom of the screen, shown in Figure 12.

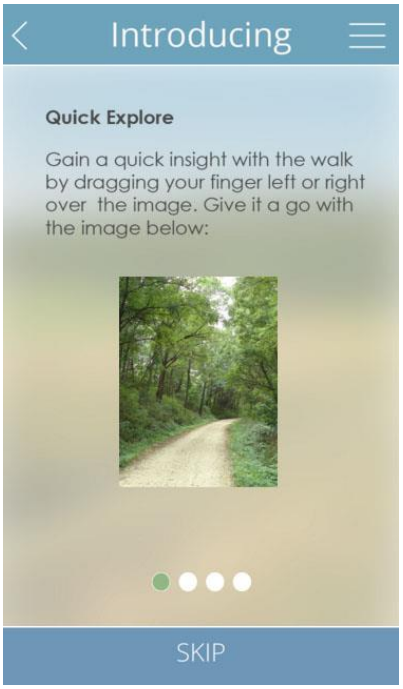


Figure 12

The use of the onboarding process will require additional user research to understand its effectiveness. The study could also reveal that features are easy to use and do not need to be introduced at the start of the application.

Quick Reveal Feature:

The user’s interest in ‘scenery’ ranked number 2 from the initial survey carried out, after ‘distance’. Imagery is important to reflect scenic value and is used by tourist industry to help sell holidays and days out. But could just one image sell a walk?

With this design, the belief is that it needs more than one image to show the journey, but the user still needs to be able to quickly explore the different walks available. For this reason, the ‘Quick reveal’ feature was designed. It offers the user the ability to quickly reveal additional images of the walk by simply running their finger across the poster image, as illustrated in Figure 13.

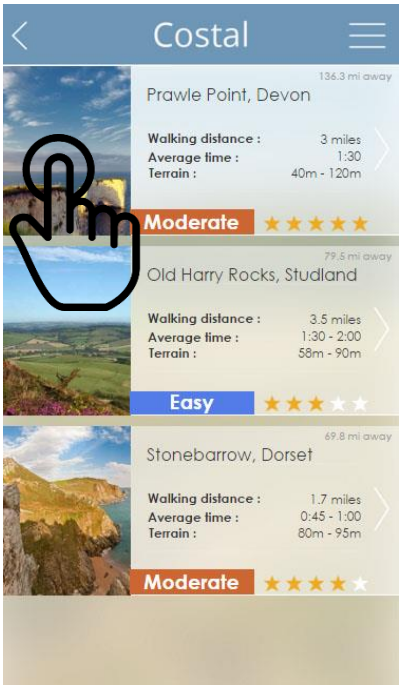


Figure 13

This is a new feature, which from the other applications reviewed, has not been used before. So there is no direct information indicating whether this feature should or should not be used. There are general guidelines which can help indicate if this would be a success or has potential limitations.

The Apple style guide states '*avoid associating different actions with the standard gestures'*. The question is what impact would using this feature have on rest of the experience? The benefit of using this feature is that while it uses the gesture in a different way to the norm, it is not destructive in its nature. By carrying out the action the user would not move to different page and when they release their finger the poster image is restored, reducing the potential negative impact of the feature. It was noted that this feature could not work if using a carousel which moves horizontally, as one gesture would be used in two different ways.

User Generated Content:

Throughout the research there were strong indications that a more dynamic and user content driven experience was required to match the needs of the recreational walker. The use of recommendations to support the user in their decision to carry out a walk was a strong indicating factor, which was highlighted in the survey showing 76.9% of participants would use recommendations and this was supported by the focus group meeting. One element that came out strongly with the interviews with the ramblers' leaders, was how important it was to know what the walking conditions were like for any particular walk. To the point that the leader would have to "recce" the walk within a few weeks before the leading the group. It was this information that offered an opportunity for a unique selling point compared with other walking applications. In this respect, making the information more dynamic and updated could cover aspects such as:

- How could the user be informed about a problem on the walk before they attempt the walk? Even within the one walk carried out with the occasional walker group, they ran into a problem, a flooded area where they had no choice but to cross and get wet.
- How could the walking community upload other potential route issues to warn walkers in the future?

- How could walkers be advised of seasonal changes to the walk - This was highlighted when interviewing the leader of the ramblers, (with broader and additional experience of walking routes multiple times) who highlighted how some certain walks were more attractive in different seasons.

This resulted in two new supportive features which aim to highlight any issues/seasonal features the user needs to be aware of prior to carrying out the walk. These are the 'walk issue' feature and 'seasonal watch' feature. When reviewing the walk details they can quickly access the latest information, and they can also easily report a new issue or seasonal feature whilst carrying out the walk themselves, as shown in Figure 14.

Figure 14

One specific issue was raised during the focus group, related to assessing the difficulty of a walk. The group felt that difficulty ratings were often subjective to the person who created the walk. If the person who created the walk would consider themselves as an advanced walker, they may consider a particular walk easy, whereas a more inexperienced walker may consider the walk as intermediate. To help resolve this issue, at the end of a walk each user is able to rate the difficulty of the walk, meaning that as more people walk that route then the difficulty rating would be generated from a wide range of users - not just the person who created the walk. The review page shown in Figure 15, is not used in the prototype since the user would have to sign in to the prototype, which is not current active.

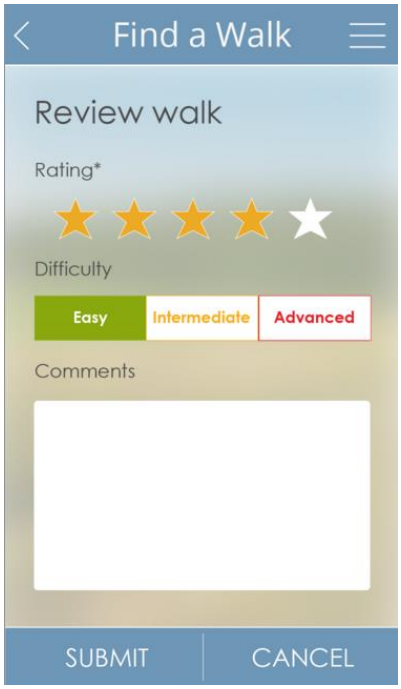


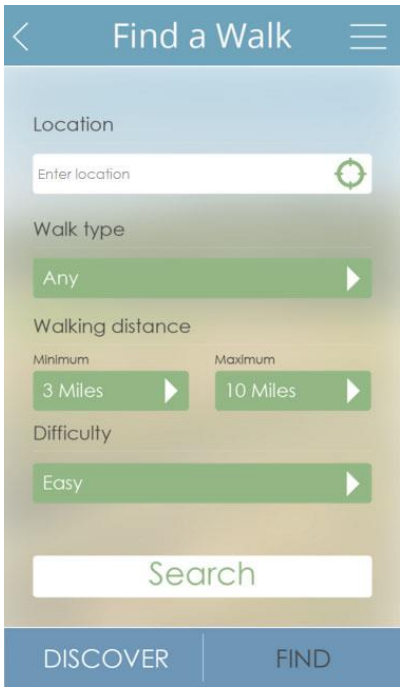
Figure 15

Information Architecture:

The information architecture for this application was important to create a clear flow of interaction and was influenced by the research carried out. The home page for the application went through a number of different designs to match the user's requirements.

When showing an early version of the prototype to participants they initially found the layout of the 'discover' section and the 'find' section 'confusing' - especially when clicking on 'find' there would be a search and find button near each other. To resolve this issue the bottom bar was removed to negate confusion and a home page was created to provide access to the 'discover' page and 'find' page. This also served to help the user be inspired to explore the different walks. The original 'find' and the new version of 'find' are shown in Figure 16.

Before:



After:

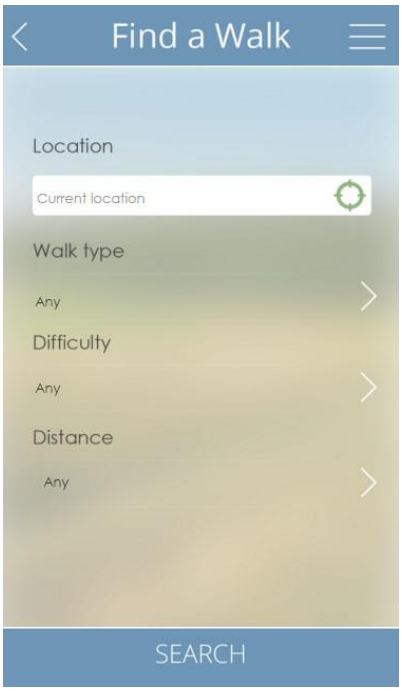


Figure 16

For the search page, consideration was made for what search fields should be used. It was also designed not to include too many properties and allow the user to search first then narrow their search using filters. Based on the survey, the walking distance and difficulty were two of the most important elements when considering the walk. Consideration was made to include a rating filter at the search stage, but it was felt this could have a negative impact on the walks the user viewed.

The information presented on the different pages was heavily influenced by the survey findings. Specifically important was the order of the information viewing the walk details. This had an impact on the following features:

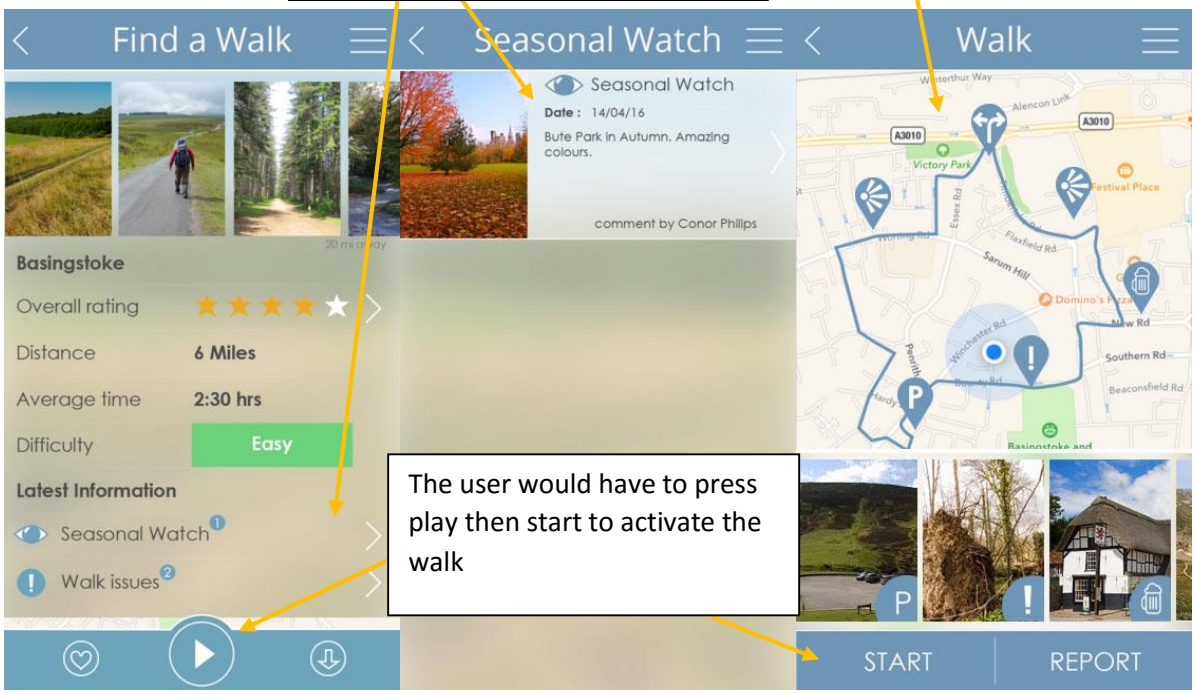
- The grid view contains minimal information, so it had to feature the most important information for the user - this was the overall walking distance. Recommendations (which have been reflected by star ratings) and scenic imagery also ranked highest.
- The list and map view contain additional information from the grid view, which includes the distance away from the start; average walking time; terrain and the difficulty.
- The walk detail, provides the most information about the walk - most notably the description is at the bottom of the list as this was one element that was ranked lowest in the survey.

Within the formative feedback session, the participant was 'frustrated' when reviewing the walk details. The participant wanted to be able to view the interactive map without having to press play. Also when clicking on the latest information features in the walk details, they wanted to be able to see where these locations were. This influenced an ideation session to resolve this issue. The solution was to remove the walk detail page and integrate it into the same page as the walking page. This has the benefit that a user can interact with the map to view the different point, but they can also gain access to the walk details with a simple touch, without losing their position. The designs before and after are shown in Figure 17 and Figure 18.

Before:

This menu system, does not provide awareness of where the different information points are. It also increases the amount of clicks

The walk view would only be available once the user has press play

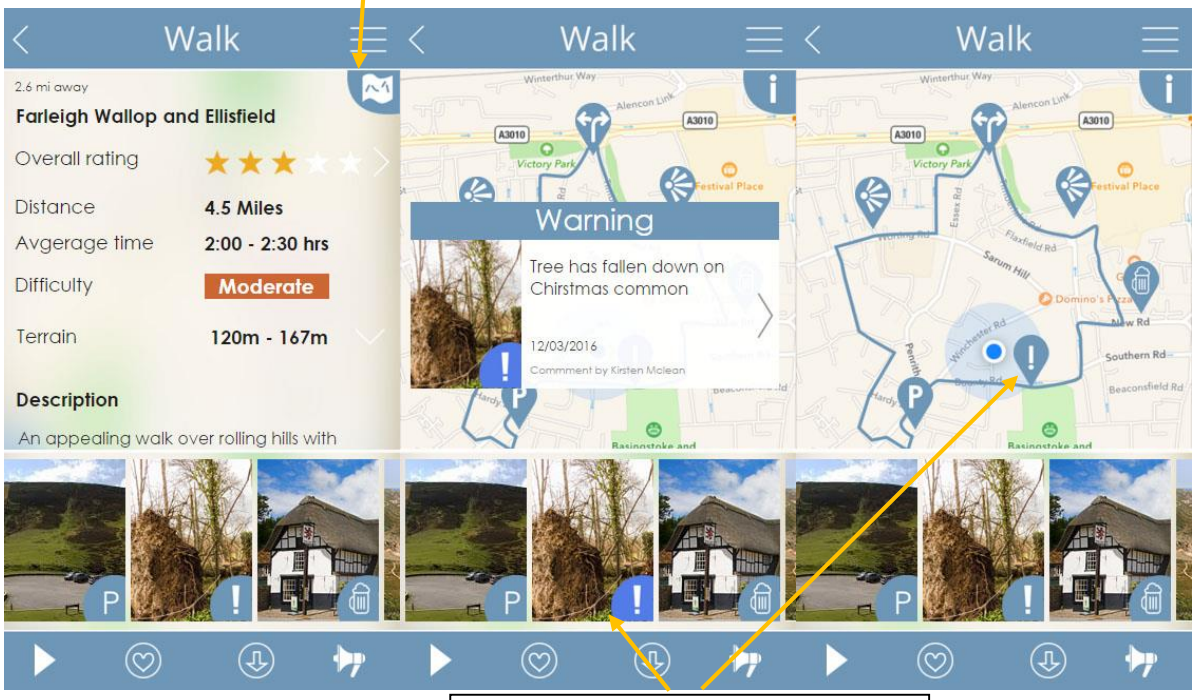


The user would have to press play then start to activate the walk

Figure 17

After

User can switch view to show or hide the walk information



Clicking on the map or the photos at the bottom will bring up the details

Figure 18

UI design:

The UI design elements were influenced by the Apple style guide, to ensure the user is able to understand how to use the application with minimal learning. This included using the following features:

- Navigation bar, which included the use of the back button, with the title in the middle and the menu button on the right, as shown in Figure 19.

Figure 19

- Page Controller, this was used to allow the user to flick through the different features of the application, as shown in Figure 20.

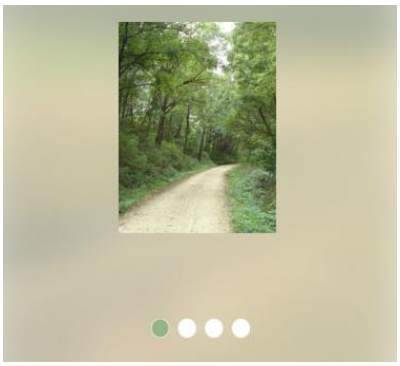


Figure 20

- When using buttons within the content area, are only adding a border or background when necessary, as shown in Figure 21.

Figure 21

- The application logo is only used at the start, to ensure that the content is not taken over by branding.

The UI icons were also used throughout the application, with the hope that the icon 'metaphors can help explain the functionality of unfamiliar technologies and inspire reflection on how relationships between people and interactive systems unfold' (Kuniavsky, 2010).

Discussion

The use of user feedback and user research has meant that the user requirements have been at the forefront when making design decisions. This has also meant a number of redesigns have been implemented to ensure the final prototype is consistent with these requirements. There are number

of areas which require additional research when developing the application further. These would focus on the effectiveness of the onboarding and the use of the quick reveal feature and latest information.

Consideration is also required for the design when carrying out the walk (this could not be tested as it would need an advanced prototyping) and in wild studies. The importance for the success of the application would also depend on people's willingness to take full advantage of the features and join the walking community.

The application accessibility would also need to be considered. If the user changes the text size in the settings the application would need to accommodate this change.

Final Discussion

The aims for this project have been achieved, utilising innovate ways to address the users' needs for recreational walking. The use of the user centred design has created a richer design and at times has created some challenging design decisions.

The application design provides a unique selling point with integration with the walking community and being able to gain access to the latest information. To fully realise the project, it would require further research into how users carry out the walk with the application and how they can create new walks. Another aspect of this application that has not been explored is branding. For this application to be successful it would also require a strong brand.

Utilising the Inductive research has been extremely useful at exposing pain points and opportunities, but it can be difficult to completely define the project scope early on, due to the need to be flexible based on findings. This project has provided a strong grounding and knowledge to carry out research for future projects.

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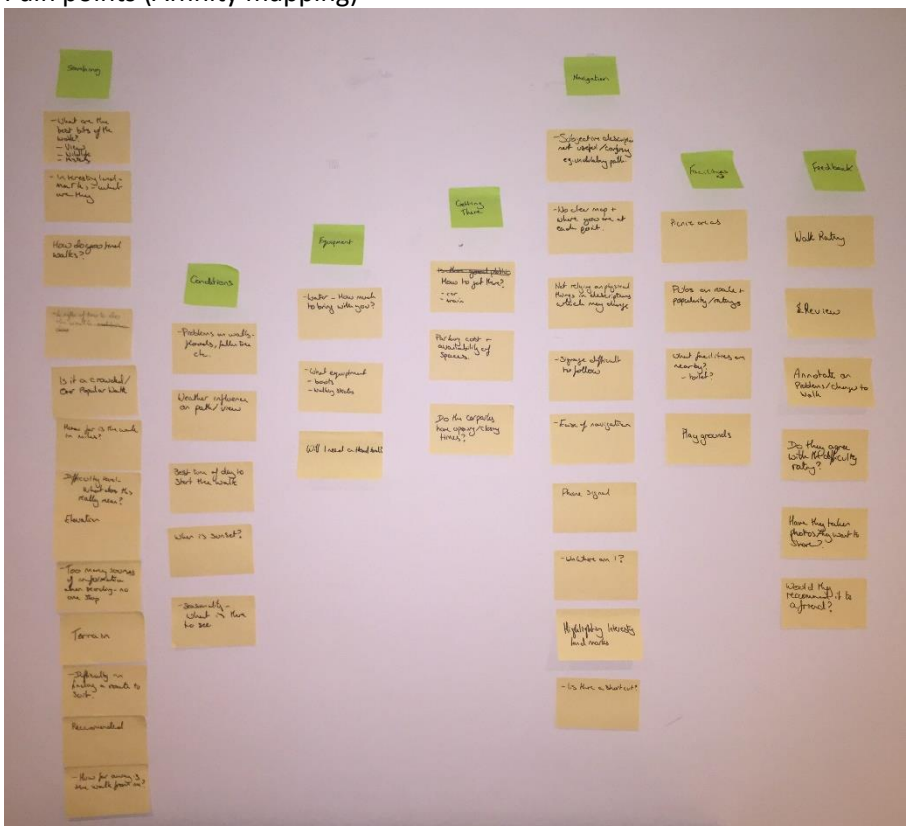
Appendix

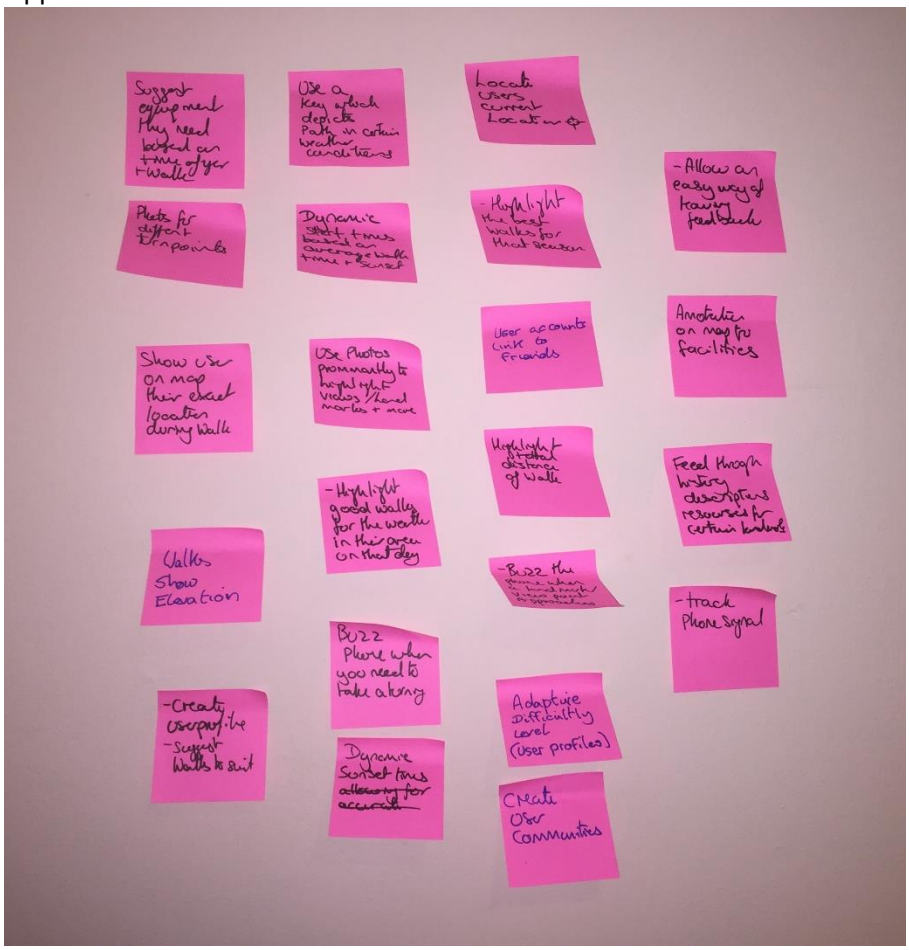
Findings

Post-it Notes with one of the walkers

Pain points (Affinity mapping)



Opportunities



Report for Walk this way

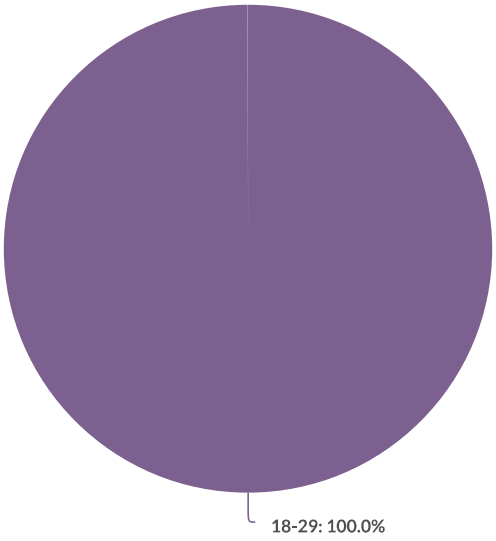
Response Counts

Completion Rate:	**100%**

Complete	39
Partial	0
Disqualified	0
Total	39

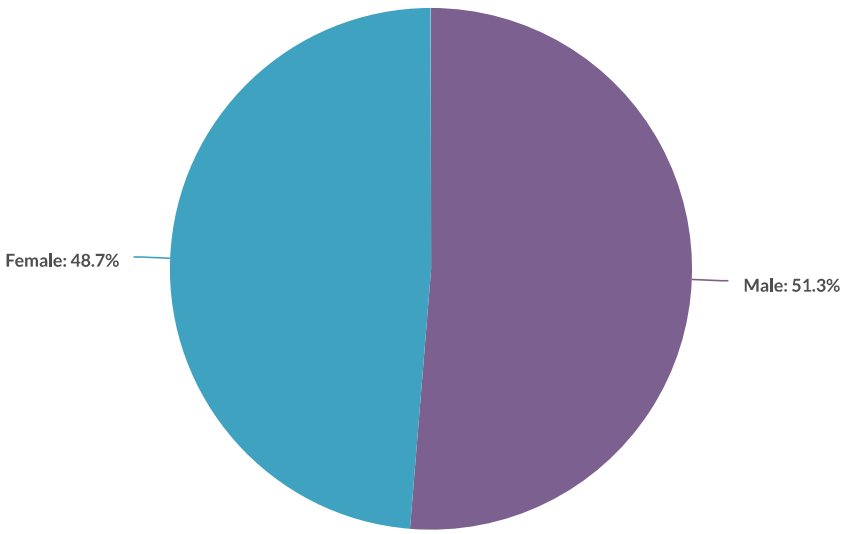
1. Age

Filter: Question "Age" #1 is one of the following answers ("<18","18-29")



Value	Percent	Count
18-29	100.0%	10
	Total	**10**

2. Are you male or female?



Value	Percent	Count

Male	51.3%		20
Female	48.7%		19
		Total	**39**

3. How often do you walk the following distances?

	More than once a week	Once a week	Once or twice a month	A few times a year	Never
Less than a mile	31 79.5%	2 5.1%	1 2.6%	1 2.6%	4 10.3%
1- 3 miles	29 74.4%	6 15.4%	4 10.3%	0 0.0%	0 0.0%
3-6 miles	5 12.8%	6 15.4%	21 53.8%	7 17.9%	0 0.0%
7-12 miles	2 5.1%	1 2.6%	6 15.4%	20 51.3%	10 25.6%
12+ miles	0 0.0%	0 0.0%	3 7.7%	14 35.9%	22 56.4%

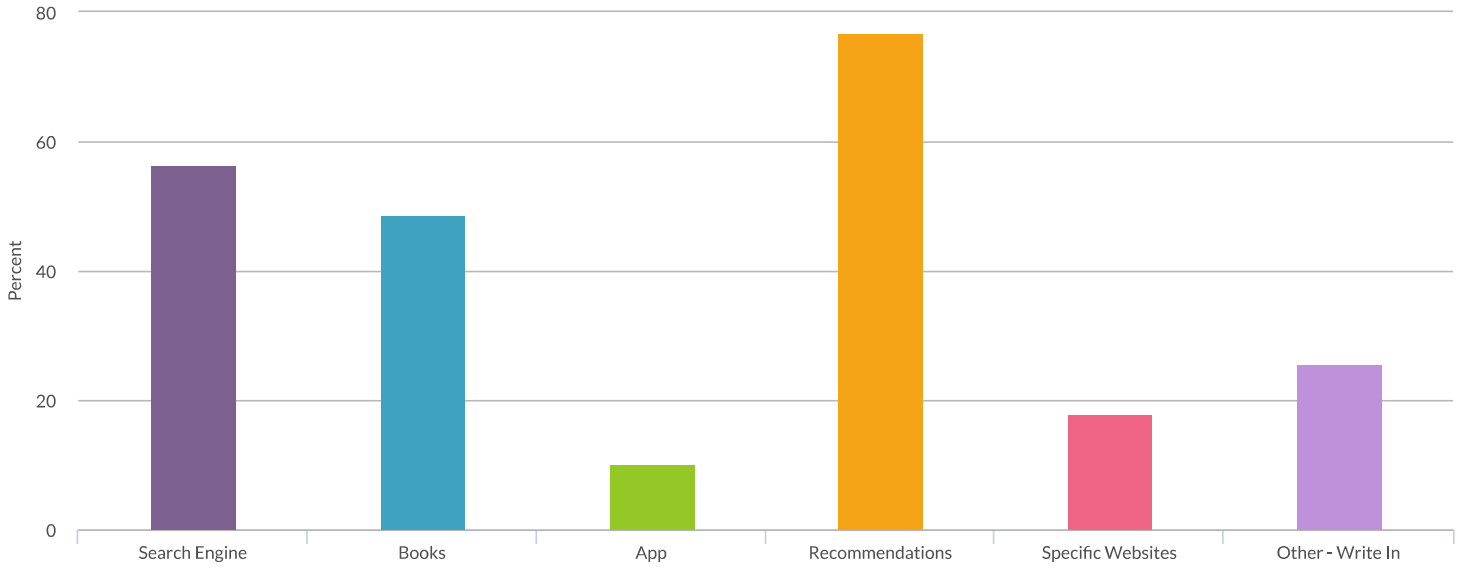
4. Rank the following in order of your most favourite to least favourite types of walks

Overall Rank	Item	Rank Distribution	Score	Total Respondents
1	Costal	|	142	39
2	Rural	|	134	39
3	Woodland	|	132	39
4	Mountain	|	113	39
5	City	|	64	39
		|		
		Lowest Rank Highest Rank		

5. What are your main motivations for going on a walk?

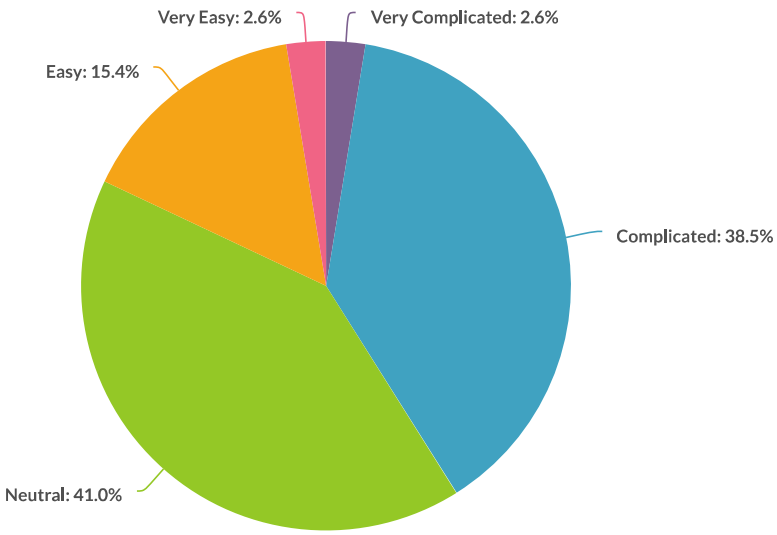
Overall Rank	Item	Rank Distribution	Score	Total Respondents
1	Pleasure	|	168	39
2	Explore	|	123	39
3	Fitness	|	108	39
4	Social	|	104	39
5	Challenge	|	82	39
		|		
		Lowest Rank Highest Rank		

6. How do you search for walks?



Value	Percent	Count
Search Engine	56.4%	22
Books	48.7%	19
App	10.3%	4
Recommendations	76.9%	30
Specific Websites	17.9%	7
Other - Write In (click to view)	25.6%	10

7. Please rate how easy/quick it is to find good new walks?

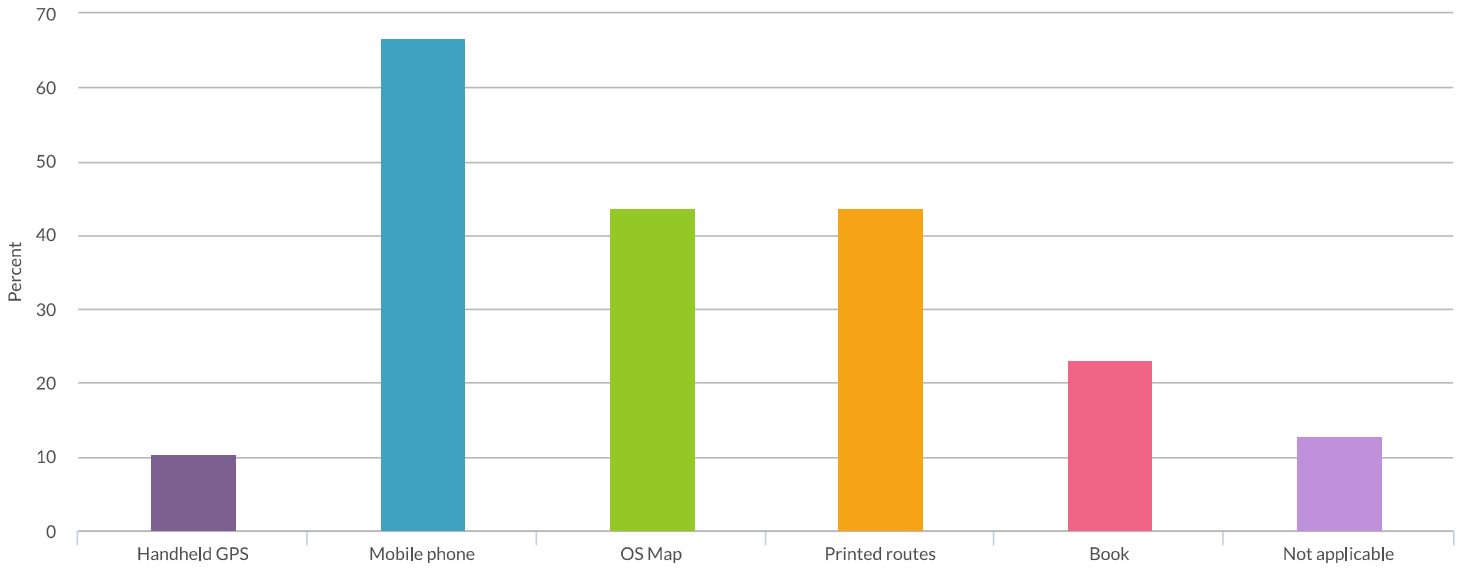


Value	Percent	Count
Very Complicated	2.6%	1
Complicated	38.5%	15
Neutral	41.0%	16
Easy	15.4%	6
Very Easy	2.6%	1
	Total	**39**

8. When considering going for a walk what is the most important factors you take in to consideration?

Overall Rank	Item	Rank Distribution	Score	Total Respondents
1	Distance		353	39
2	Scenic		335	39
3	Terrain (muddy,steep etc)		318	39
4	Average time		306	39
5	Recommended		279	39
6	Points of interest (View points, historical, nature etc.)		264	39
7	Facilities (pub/restaurant/picnic area)		239	39
8	Signposted (waypoint trail, footpath etc)		230	39
9	Difficulty Level		217	39
10	Dog friendly		191	39
11	Family friendly		167	39
12	Detailed Guide Available		143	39
		Lowest Rank Highest Rank		

9. Do you use any of the following when out on a walk?



Value	Percent	Count
Handheld GPS	10.3%	4
Mobile phone	66.7%	26
OS Map	43.6%	17
Printed routes	43.6%	17
Book	23.1%	9
Not applicable	12.8%	5

10. What would you say are the main challenges you face when searching for a walk?

37 Total Responses | Show Responses

---

11. What would you say are the main challenges you face when navigating a walk?

37 Total Responses | Show Responses

Participant # ……

INTERVIEW QUESTIONS SHEET

How easy was it to browse for a walk?

……

……

How easy was it to search for a walk?

……

……

How effective was the application at providing the level of detail required to assist your decision to carry out that walk?

……

……

When reviewing the walk, how effective was it to discover the walk issues?

……

……

Is there any feature missing that you were expecting to able to use?

……

……

Participant # ……

TASK SHEET 1

Please read the instructions on this sheet carefully, and then tell me what you have understood you have been asked to do.

You land on the app page for the first time, can you find a countryside walk which is of moderate difficulty and has a walking distance between 3 and 4 miles?

ANSWERS

What features did you use to find a walk?:

……

……

……

……

……

……

……

……

……

……

……

Participant # ……

TASK SHEET 2

Please read the instructions on this sheet carefully, and then tell me what you have understood you have been asked to do.

Using the Farleigh Wallop walk, can you find out if there are any issues to be aware of on that walk?

ANSWERS

What walk issue have you found:

……

……

How effective was it to access the information:

……

……

……

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