

Information Architecture

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Contents

1	Abstract	3
2	Domain Choice	3
3	Design Discussion	3
3.1	Design Summary and Method	3
3.2	Information Architecture Patterns	3
3.3	Classification Schemes	3
3.4	Search	4
3.5	Navigation	4
3.6	Site Map	4
3.7	Layout	4
4	Evaluation	5
5	Reflective Discussion	6
6	Appendices	7
6.1	Appendix A: Domain Model	7
6.2	Appendix B: Persona	8
6.3	Appendix C: Site Map	9
6.4	Appendix D: User Journey	10
6.5	Appendix E: Wireframes	11
6.5.1	Home page	11
6.5.2	Search Results Page	12
6.5.3	Place Page	13
6.6	Appendix F: Search Storyboard	14

1 Abstract

Lesbian, Gay, Bisexual, Transgender and Queer etc. (LGBTQ*) people’s health service information needs are not well catered for. This report discusses the justifications made to design and evaluate a better information service for LGBTQ* people.

2 Domain Choice

This report focuses on the domain ‘Health service information for LGBTQ* people’. It was chosen because it presents a number of interesting features. Foremost, the health domain is already extremely complicated - featuring a large variety of facets. Each of these facets include many vocabulary trees and have many synonyms. Moreover, the needs of LGBTQ* people are often not met, information is hard to find, and sometimes even “offensive and discriminatory” (Quinn 2006, p. 33). This domain offers an opportunity to work with a large, complicated data set, and will also directly benefit a poorly represented user base.

3 Design Discussion

3.1 Design Summary and Method

The output of the design process is a system for helping LGBTQ* people to have more effective access to relevant health service information, especially services available from the NHS. Moreover, as the necessary information often simply is not available, the designs from this project also provide crowd-sourcing elements, allowing users to improve the data.

A Semi-structured interview was designed and three participants were recruited from the LGBTQ* community. A domain model and persona were produced using information gathered from these interviews. The persona (Appendix B) was given five information tasks, and the task “find transgender counselling” was focused on for the wireframe design process. Terms were identified from the interviews using Donna Spencer’s “Exploring the data” method (Spencer 2010, p. 77). These terms were used to produce a card sort where participants were asked to sort the terms into categories. These categories were validated with a tree test and the results were used to help design the navigation.

3.2 Information Architecture Patterns

The primary source of data for this project, the NHS Choices API¹, returns 612 service types. Each type of service contains many nodes, providing an extremely large set of data. Each node represents a type of health practice.

Initially, the hierarchy pattern (Spencer 2010, p. 180) seemed suitable as the NHS already have health practices categorised into a hierarchy of services. However, the hierarchy pattern was disregarded in favour of the database pattern. Donna Spencer suggests that the hierarchy pattern suits small sites and can be challenging to balance the breadth and depth of content (Spencer 2010, p. 207), while the database pattern is “for content that has a consistent structure. The individual pieces of content may have no relationship to one another – they certainly don’t have the parent child relationship that hierarchical content does” (Spencer 2010, p. 183).

3.3 Classification Schemes

Three people were interviewed about the domain. Analysis of the interviews revealed that all participants use search engines to find health service information. This inspired the decision to use a search-based approach. However,

¹<http://v1.syndication.nhschoices.nhs.uk/services/types.json?apikey=NOTKAXDM>

there are times when search is not suitable. Some users prefer to explore data by clicking through links, while others are not sure what they are looking for, as they may not know the correct terminology.

To facilitate an audience who do not use search, a topic classification scheme was designed and tested using TreeJack². Large data sets – such as NHS Choices’, prevent alphabetic-, geographic-, and time-based classification schemes from being suitable choices. Diverse concerns raised by interview participants ruled out audience and task schemes. All interviewees discussed “health services”, “professionals”, and “information”. These terms were identified from a card-sort and used to form the topic based scheme. During testing this tree met a very low failure rate. Participants often opted to use the tree when information was available, with few opting to use the search in these conditions.

3.4 Search

Tony Russell-Rose et al. discusses a variety of goals people have when searching for content. These include ‘Known item’, ‘Exploratory’, ‘Don’t know what you need to know’, ‘Refinding’. (**russell2013**). To cater for this, the wireframes incorporate a number of features which assist the search mechanism. Users have the option to ‘favourite’ content for re-findability. A sort is provided to help show the most relevant content, and filters are provided to hide irrelevant content. The search bar always includes the previous search phrase, so that users can easily modify their query. Finally, the ability for users to add and rank tags aims to improve their future search experience.

Sorting and filtering are included to help users find the content that they are looking for. Russell-Rose, quoting Hearst says “...not all attributes are equally meaningful as sort keys. The sequence generated when sorting by nominal attributes such as name or description is not inherently meaningful in the same way as sorting by a quantitative attribute” (**russell2013**). Consideration was given to which types of sorts to use. Nominal attributes like title and description were disregarded. Names of places in the NHS Choice’s data set are typically not descriptive, for example, the Archway Clinic is a sexual health centre, but its name does not reveal this. Furthermore, if users are looking for a place by name, they are able to enter it as a search phrase. Instead, quantitative sorts are included allowing users to sort by distance, their favourites and relevance to the search phrase.

3.5 Navigation

Navigation bars are not featured in the designs as users are encouraged to use the search, or link-rich home page. Topical links were included on the home page due to participants’ demonstrated preference to use links over search when the content they were looking for was immediately recognisable.

Breadcrumbs (Spencer 2010, p. 271) have been included to help a user get back to their search query. Additionally, the search bar always contains the user’s previous search phrase. Service tags and categories both link to search queries with those phrases, to aid users in finding similar content without needing to manually enter a new search.

3.6 Site Map

The proposed site map (Appendix C) looks deceptively simple due to the site being predominantly search-based. Moreover, when compared to a site map using the hierarchy pattern (Spencer 2010, p. 180) the representation of pages on the site map using the database pattern (Spencer 2010, p. 183) explains the visual simplicity.

3.7 Layout

Each page is broken up into a number of content areas, each with a single purpose (Brown 2011, p. 171). Appendix D shows two main content areas (annotations 2 & 3). Brown also discusses assigning priority to content areas

²<https://apps.optimalworkshop.com/suite/treejack>

using layout and size (Brown 2011, p. 173). Following this advice, higher priority items were placed near the top and on the left, while lower priority items are closer to the bottom and/or to the right. Size was also considered, and greater priority items were given more width, especially where a row is shared by more than one content area (example, the place page in Appendix E uses two columns, but greater width is given to Soho Clinic’s details, and it is placed on the left).

Search was placed very prominently on the home page, and included at the top of all other pages as it is the predominant way that interview participants search for health service information. Topical links were included to make finding information easier, as recognition is easier than recall (**rogers2011**). Typing in a search phrase requires recall, while viewing content on a page uses recognition. A search auto-complete mechanism (Appendix F) was included to minimise the amount of recall a user requires to find the information they are seeking.

Greg Nudelman says “A well-designed search-results page is well worth the effort, since it is the key to helping your users successfully achieve their goals and enticing them back to your site” (Nudelman 2006). As the proposed site is entirely search focused, much time has been spent designing the search results page. Sorts and filters are placed at the top of the results page to give them a high priority. Tags are included on

Following Caddick and Cable’s advice, boxes are nested to show how groups of items belong together, structure and style is kept consistent between pages (header and footer, page width) and different shades of grey are used to denote regions and importance, with darker shades of grey denoting more important content (**caddick2011**).

4 Evaluation

Caddick and Cable say that “It’s never too early to test” (**caddick2011**), thus wireframes were validated with friends and refinements were made based on their feedback. Additionally, realistic data was used to make tests more believable (**caddick2011**) and the user journey (Appendix D) informed the flow of the tests.

Three click test evaluations were conducted using ChalkMark³ with anonymous LGBTQ* participants recruited from Twitter. In the first click test, none of the tasks had tested how users would find content that is not listed in the topic navigation on the home page, so a second click test was devised.

During the design of evaluation questions some design flaws were revealed. The description of Soho Clinic on the search results page does not contain information relevant to the user’s search. Tags denoting what services Soho Clinic offers were added to the results page. This was tested before and after, with the latter test being 100% successful.

Issues with labelling were highlighted. When asked to correct the description, participants often clicked on other correction links. It was believed that the placement of these links would be enough, but clearly “correct this” was ambiguous labelling and would benefit from describing the content that the link would correct – i.e. “correct this address”.

When tasked with finding a sexual health clinic, some participants’ choices were unexpected. Sexual health clinics are not displayed on the home page, thus participants were expected to use the search. Although 63% of participants used search to find this information, 12% chose the term “Contraception” from the topical links. However, because this is a service offered by many sexual health clinics, users would still be able to find a clinic. Since participants were not told why they were looking for a sexual health clinic, the services each participant might expect from one would likely vary. Explaining the purpose of the task, in addition to what they are looking for, may have provided more consistent test results.

Due to the limitations of a free ChalkMark account, many aspects of the wireframes have not been evaluated.

The placement of place descriptions on the search results page falls under question. The machine-sourced description for Soho Clinic does not provide relevant information to the user’s search thus it is likely better removed. Additionally, maps and photos were included without much justification and were not evaluated. Additional interviews and tasks are necessary to validate these design decisions. Moreover, think-aloud tests (Nielsen 1993, p. 195) would afford a greater understanding of participants’ behaviours.

³<https://apps.optimalworkshop.com/suite/chalkmark>

5 Reflective Discussion

Peer feedback was extremely useful during this assignment and led to many corrections. Fellow students were very helpful in assessing the legibility of the domain model, user journey, site map and wireframes. Colour was added to the domain model following peer advice, which greatly improved its legibility.

Because the domain focuses on a topic that could be considered niche, lecturer and peer feedback was especially useful in ensuring that the language used is explained. For example, the acronym LGBTQ* is described in the abstract as a result of feedback.

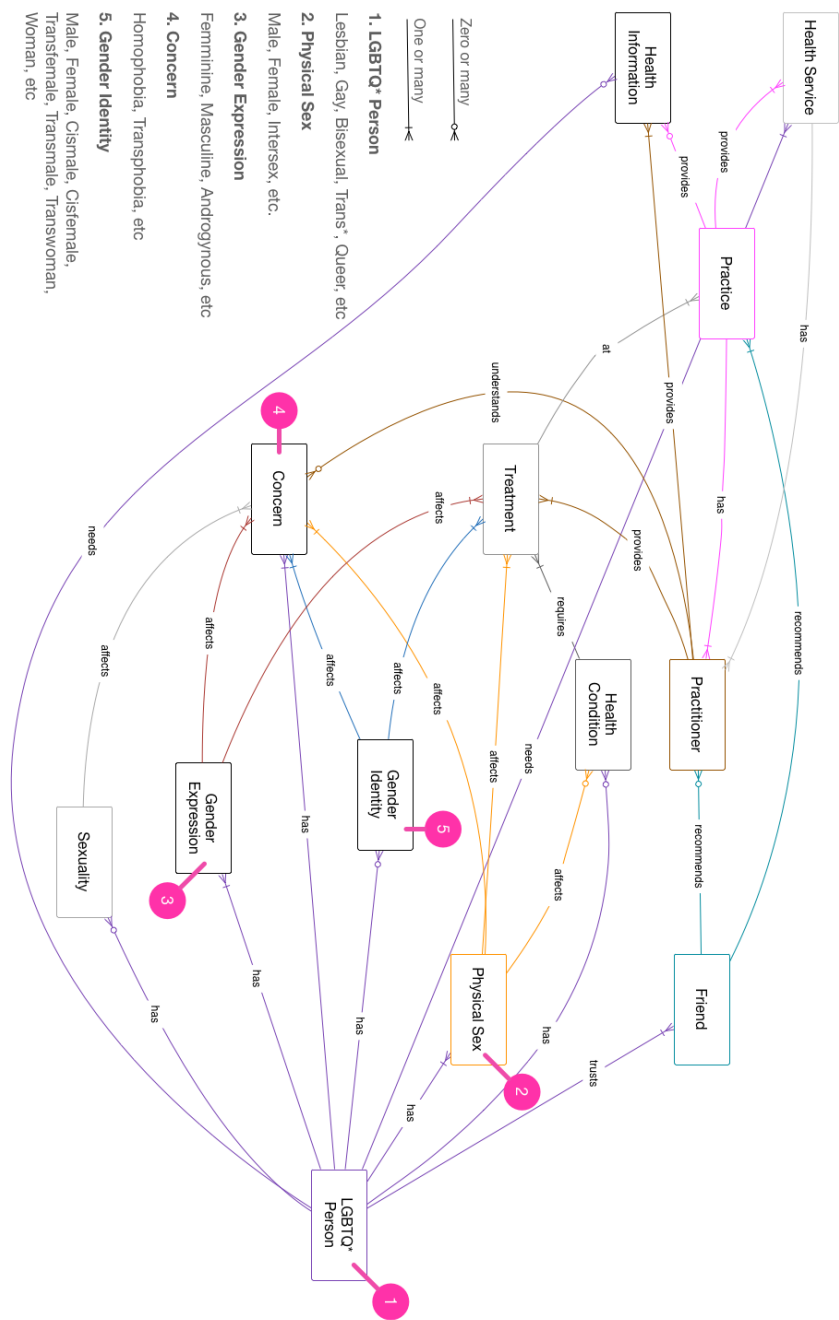
The lecturer provided useful feedback on producing a domain model, which proved more challenging than originally expected. Many domain models were produced, some focusing more on terminology, others on the logical components of the domain. The final version presents a very logical outline of the domain, and uses annotations to provide examples of terminology.

The complexity of the domain made it hard to keep legible on A4. Peer feedback resulted in cleaner lines being used, and different colours to help visually aid anyone viewing the content.

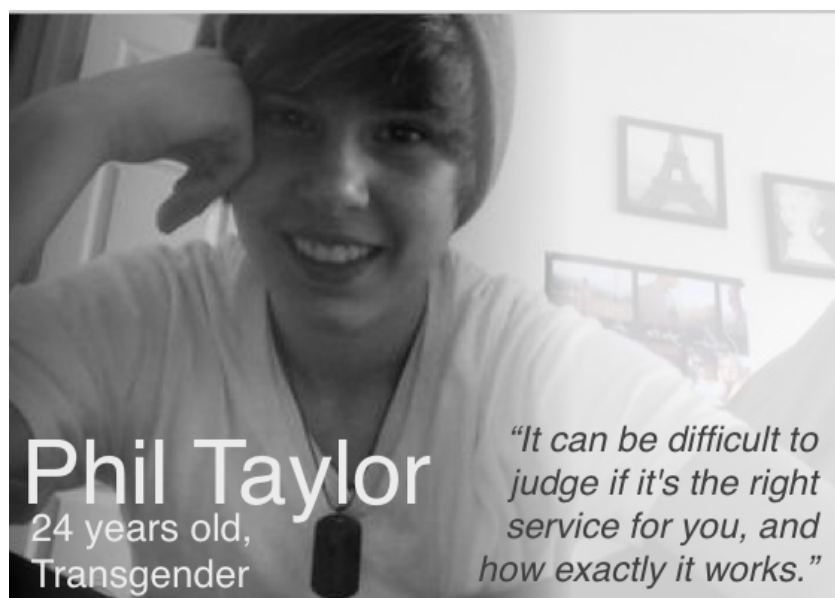
Time spent with, and advice from the lecturer helped aid the layout of the report.

6 Appendices

6.1 Appendix A: Domain Model



6.2 Appendix B: Persona



Phil is a pre-operative transgender man who has only just started coming out to his friends. He only sometimes passes as male, and this ambiguity in appearance sometimes causes distress in male/female segregated settings. Phil is sexually active, sometimes with multiple partners.

Being transgender is a topic that Phil finds difficult to talk about. He often worries how the person he is talking to may react about it, and also finds it somewhat embarrassing to discuss.

Because female to male reassignment surgery is not yet able to produce a convincing penis, Phil is not certain that he wants to go through with transitioning to live as a man. Instead, Phil thinks that they may live in a gender queer role, by only changing his appearance; not taking hormone therapy, or having reassignment surgery. As a result, Phil would like to receive counselling about his gender.

Knowing that the information online is poor, Phil would like a way to improve this themselves.

Key goals

- Find transgender counselling
- Improve information about health services
- Find suitable sexual health screening services.
- Locate a GP who can work well with trans patients
- Find information about transitioning

✓ We must

- Make information available using search phrases and terms used by Phil
- Provide a way for Phil to improve the information
- Respect Phil's right to privacy

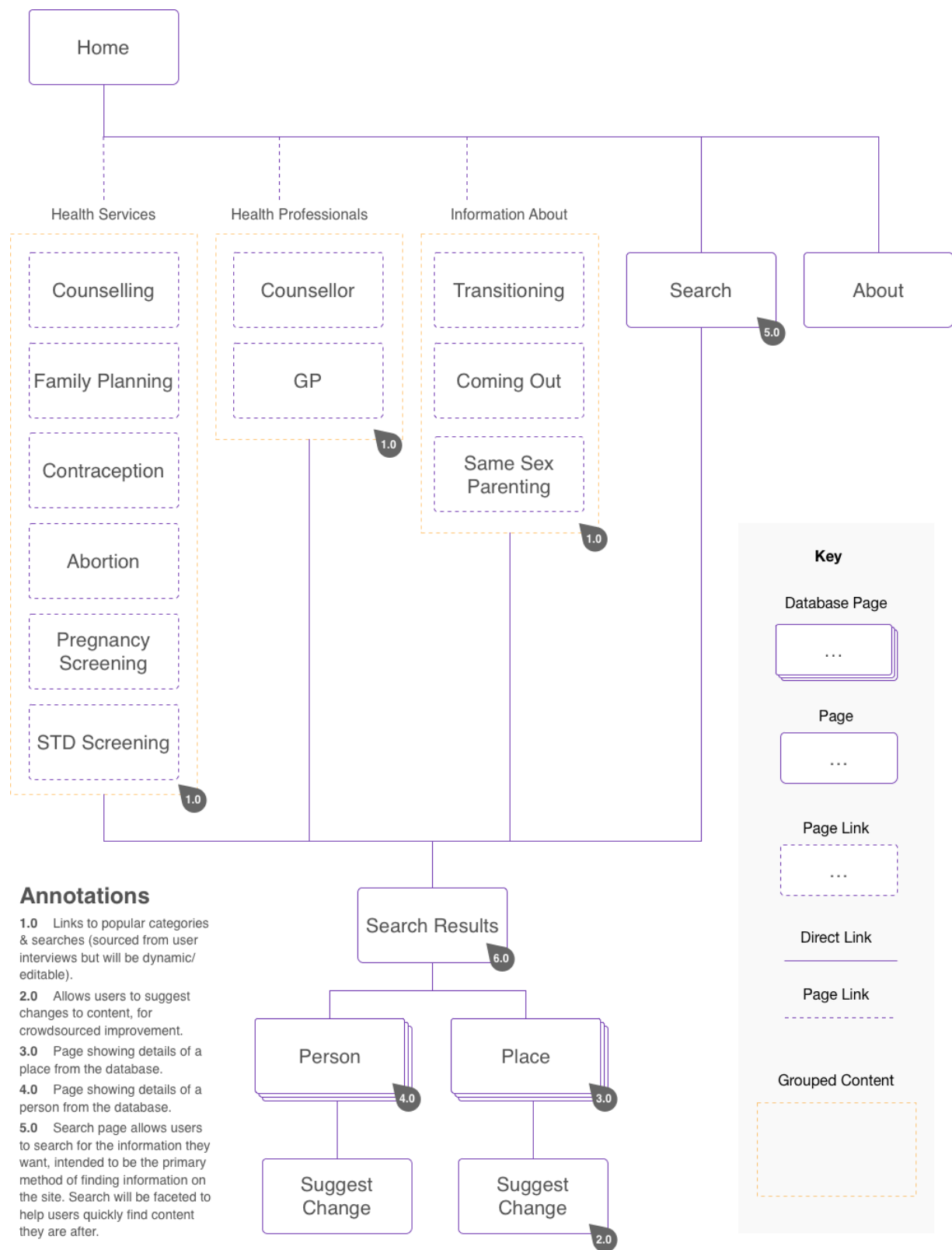
Behaviours

- Uses search engines like google
- Trusts advice from friends
- Afraid of transphobia
- Finds it embarrassing to talk about their health condition

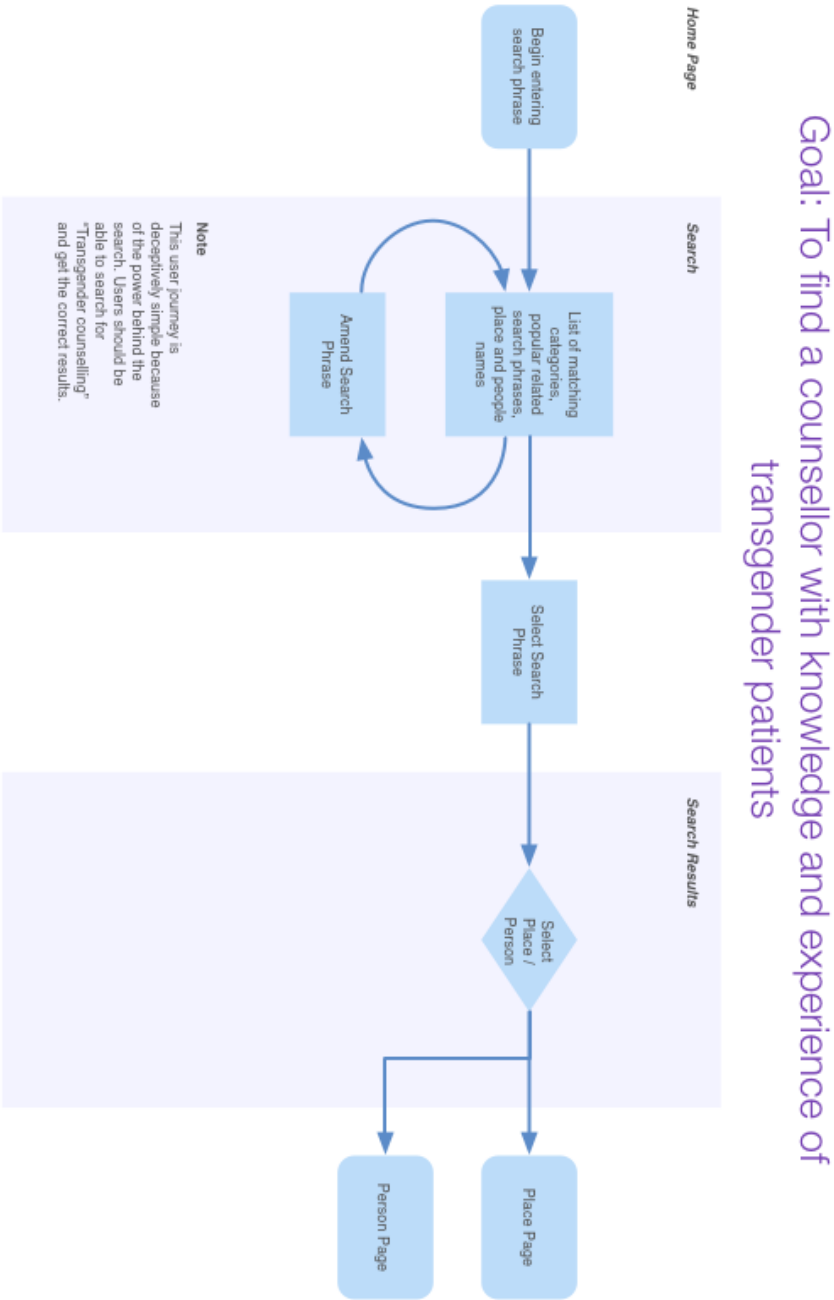
✗ We must never

- Use pronouns that the user does not want
- Contact them using their identity, as it may not be the same one their friends know them as

6.3 Appendix C: Site Map



6.4 Appendix D: User Journey



6.5 Appendix E: Wireframes

6.5.1 Home page

crowdhealth.io

1

Health service, professional and information optimised for LGBTQ* people.
Help tag health service information to improve access for LGBTQ* people.

2

What are you looking for?

Q

Search

3

Health Services

- Counselling
- Family Planning
- Contraception
- Abortion

Health Professionals

- Counsellor
- General Practitioner

Information About

- Transitioning
- Coming Out
- Same Sex Parenting

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1. Introduction

Concise description of the purpose of the site

2. Search Search

Large prominent search box, auto-completes search suggestions as the user types.

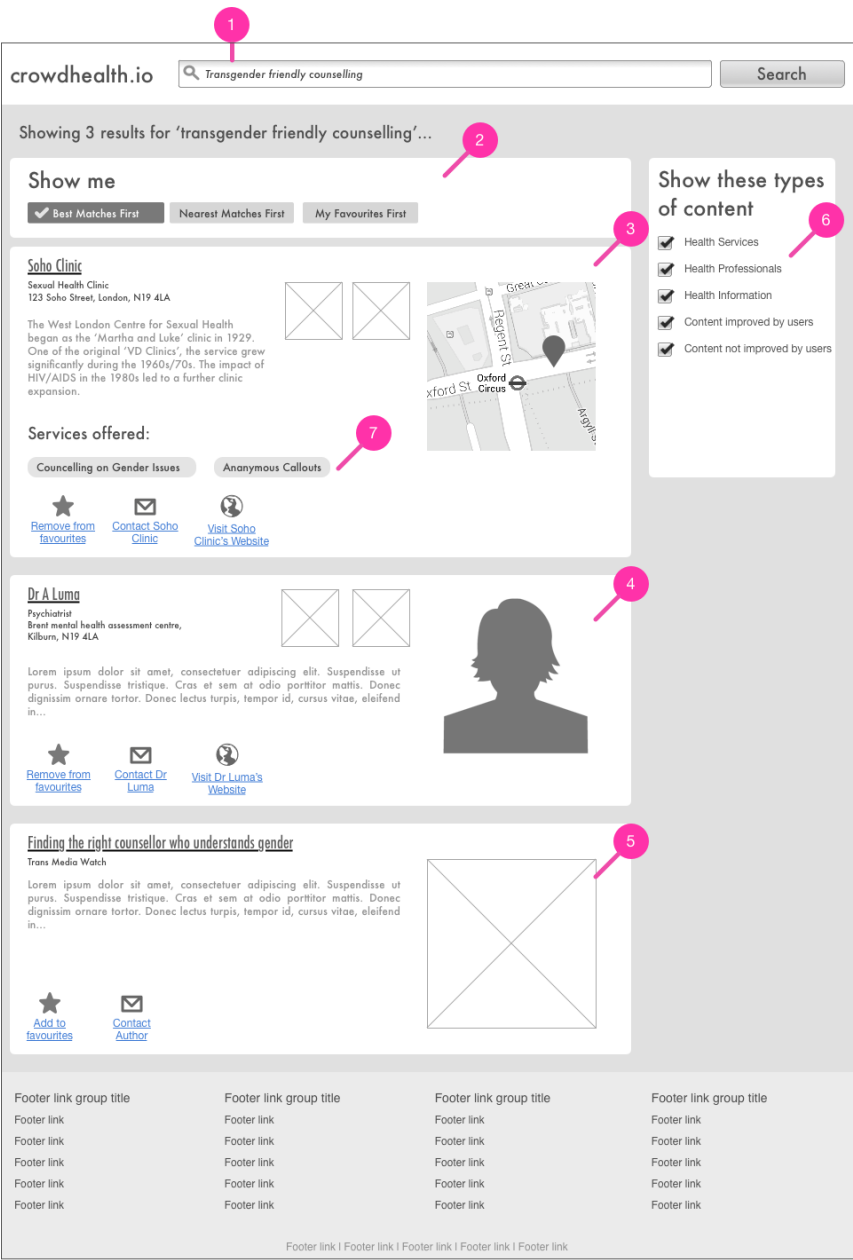
3. Search Phrases by Category

For people who may not use the search, or have English as a first language, common search terms are included which can be clicked on to search for them.

4. Logo links back to homepage across all pages

11

6.5.2 Search Results Page



1. Search Bar

The search bar moves to the top, so the user can do subsequent searches. There previously used search term remains, in case all they want to do is make a minor change.

2. Search Sort Box

Let's the user quickly search based on preferences. For people outside of London, there may not be geographically preferable locations. Some services, like gender identity clinics are very specialist and sparsely located.

3. Place Result box

The place result box contains a description of the place. The type of place and address. A map showing where the place is. Pictures of the place. This place has been favoured so users are asked if they want to remove it from their favourites. Users can contact the clinic or visit its website. The place name is a link and goes to the place page.

4. Health Professional Result box

The professional result box contains a description of the health professional, their name, the address of where they primarily practice. There are pictures of the health professional. Users can contact the health professional or visit their website. The person's name is a link and goes to the health professional page for that person.

5. Information Result box

Shows the headline of the information, the author, some of the content and an image taken from the information. Lets the user favourite it, or contact the author.

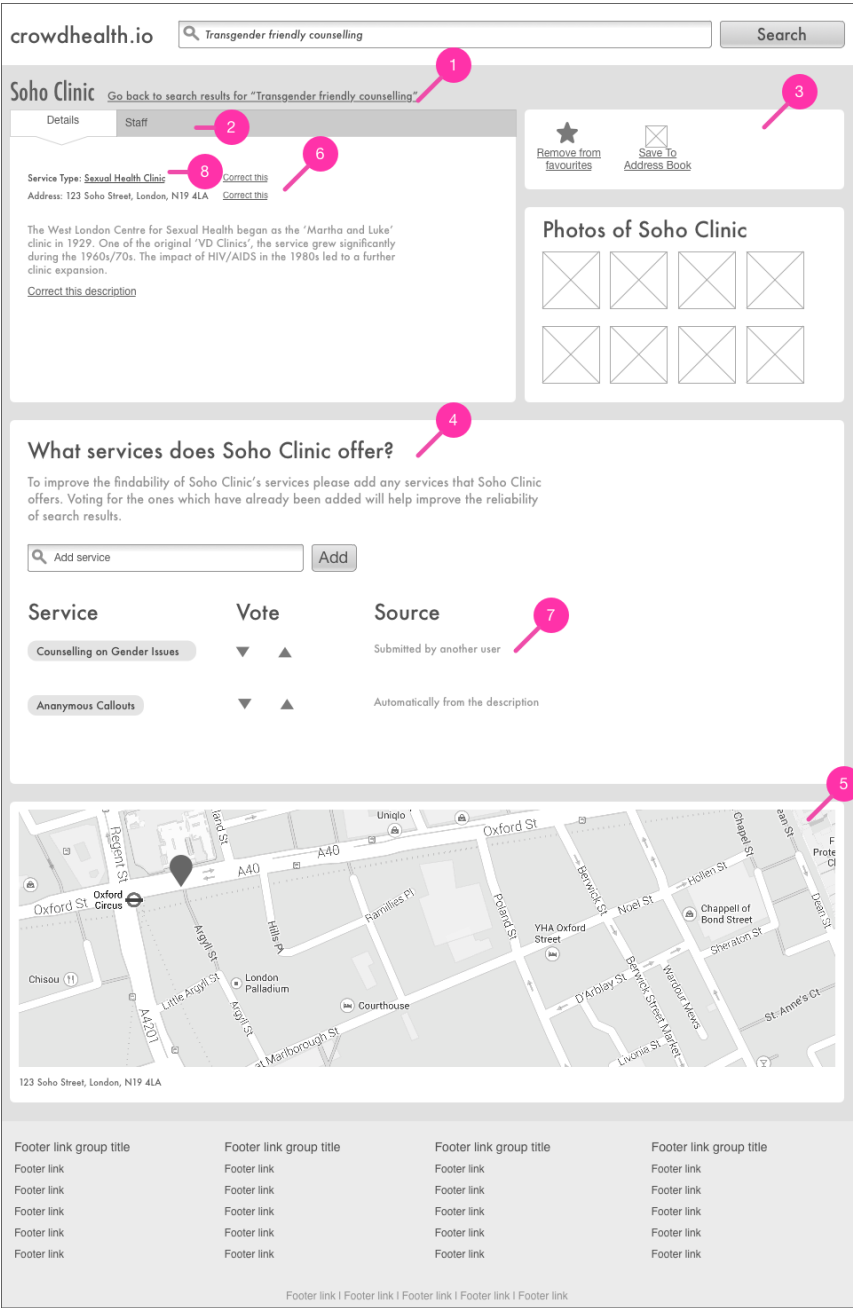
6. Search filter box

Let's the user filter out any content they don't want to see.

7. Service tags

Service tags included because the machine-sourced description and, type of establishment are incorrect. Same ordering as shown on the place page. User can click on tags to make them their search term.

6.5.3 Place Page



1. Breadcrumb

Allows the user to get back to their search request

2. In page navigation

Additional information about the health practice is available within tabs on the page that do not require the browser to load a new page. This information is stacked where JavaScript is not available.

3. Actions

Content type specific actions appear here.

4. Tag box

The tag box briefly describes its purpose in helping users to improve content. Users can add service tags, or vote existing service tags up and down. The terminology tag is avoided as no users showed an understanding of this terminology in interviews.

The source of the tags are shown so users know if the information is crowd sourced, or machine sourced.

User can click on tags to make them their search term.

5. Map

An interactive map showing where the place is, with the address shown again below for accessibility.

6. Correct this

Correct this links let the users suggest edits to content so that it may be improved.

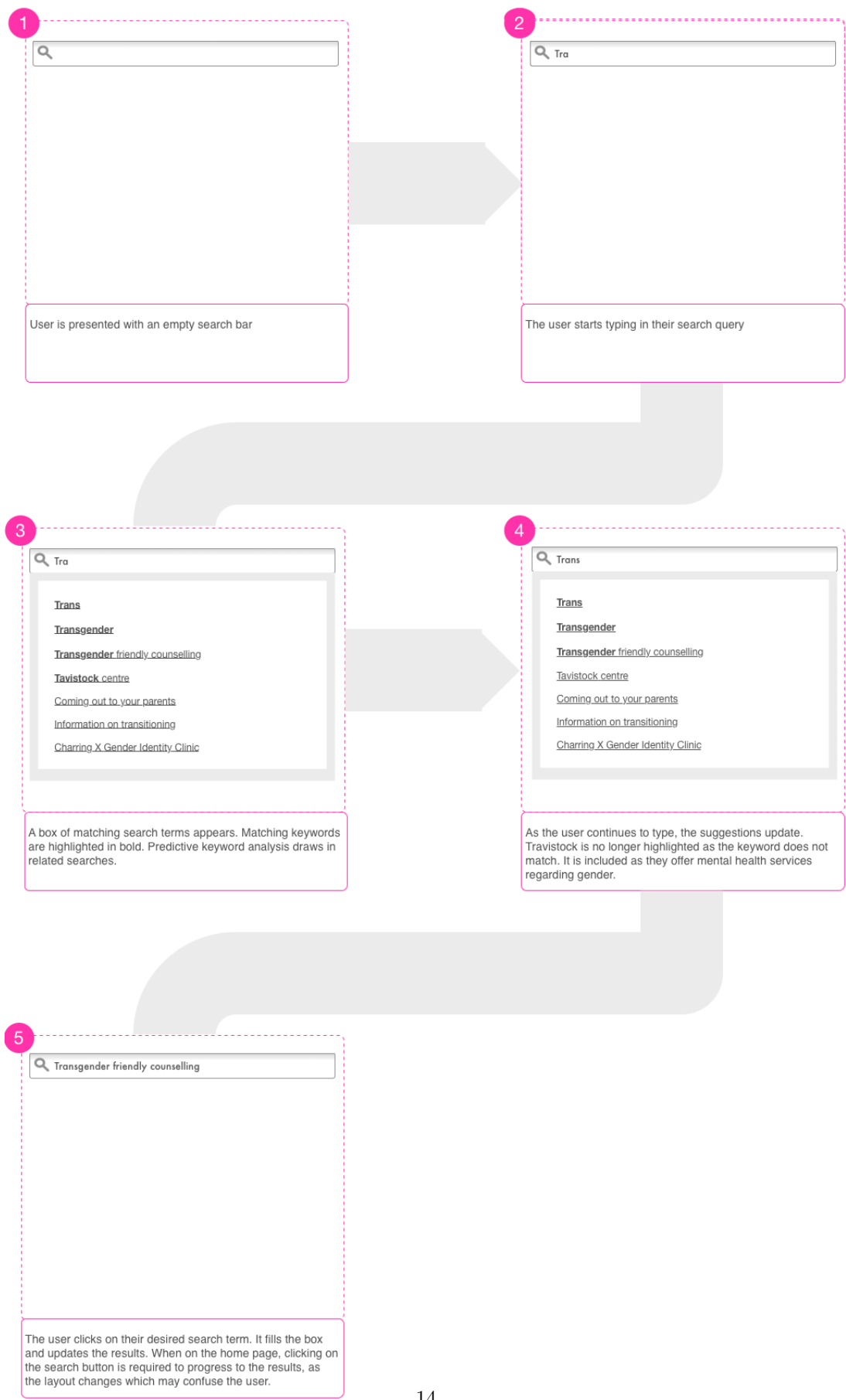
7. Tagging Priority

User submitted tags receive a higher priority by default, as these are likely to be the most relevant to the user base.

8. Service Type

Service type links to a search page with the service as its query.

6.6 Appendix F: Search Storyboard



References

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