The design of a web application to act as a hub of services for the transgender community in Liverpool

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A person holding a flag

Description automatically generated with medium confidence

Figure A transgender flag being waved at LGBT gay pride march by ‘ink drop’ used under Standard License from Adobe

Contents

[1. Draft Project Report 3](#_Toc141784211)

[1.1 Problem description 3](#_Toc141784212)

[1.1.1 Title 3](#_Toc141784213)

[1.1.2 Description 4](#_Toc141784214)

[1.2 Account of related literature 4](#_Toc141784215)

[1.2.1 Literature review 1 - DBaaS 4](#_Toc141784216)

[1.2.2 Literature review 2 – requirements and CSS 4](#_Toc141784217)

[1.2.3 Literature review 3 – OpenStack Trove and AWS DynamoDB 4](#_Toc141784218)

[1.3 Account of Project Work and its outcome 4](#_Toc141784219)

[1.3.1 Work conducted prior to 2/5/23 4](#_Toc141784220)

[1.3.1.1 Initial User Interface sketches 4](#_Toc141784221)

[1.3.1.2 Requirements elicitation 4](#_Toc141784222)

[1.3.1.3 User Interface design 4](#_Toc141784223)

[1.3.2 Work conducted since 2/5/23 4](#_Toc141784224)

[1.3.2.1 Setting up the database and API’s 4](#_Toc141784225)

[1.3.2.2 Implementing the map and pins 4](#_Toc141784226)

[1.3.3 Future Plan 4](#_Toc141784227)

[2. Review 4](#_Toc141784228)

[2.1 Review of project work 4](#_Toc141784229)

[2.2 Review of project management 4](#_Toc141784230)

[2.3 Risks to project completion 4](#_Toc141784231)

[2.3.1 Resources 4](#_Toc141784232)

[2.3.2 Risk management 4](#_Toc141784233)

[2.5 Tutor feedback 4](#_Toc141784234)

[3. References 4](#_Toc141784235)

[4. Appendices 4](#_Toc141784236)

# 1. Problem description

## 1.1 Title

The design of a web application to act as a hub of services for the transgender community in Liverpool

## 1.2 Description

There are many vital services available to the transgender community in Liverpool, but it can be a challenge to find them. This is particularly the case for new members of the community who may be in a vulnerable situation, as the point of coming out is a huge life change that may be accompanied by mental health issues and the loss of relationships. This is compounded by transgender healthcare facing profound ignorance (and in some cases outright bigotry) from many GPs, who may attempt to block or delay attempts at medical transition, alongside extreme waiting lists for appointments at Gender Identity Clinics (McAuley, 2022).

The trans community attempts to solve these issues in numerous ways, mostly informal (e.g. by word of mouth in group chats), but two more formal ways are the Liverpool Trans Wiki (TransLiverpool Wiki, 2023) which catalogues and comments on many services that are available; and the Spirit Level peer support group which invites in guests from services to explain what they offer to the community. The proposed web app will seek to build on these solutions and incorporate this specialist knowledge into it.

The web app will be usable on web browsers and on mobile devices using HTML, CSS, and JavaScript and will utilize an AWS DynamoDB table as a database, consisting of several pages. Firstly, a page that contains a map which displays services on it, which will be filterable by type (e.g. mental health or peer support) and gender identity (e.g. transfeminine and transmasculine); and when a service is selected more information and contact details will be provided. Another page will contain a search function for a database which will return services based on user queries. There will also be a page that will contain an events calendar. The app will be designed such that information will be one way, to protect the user’s privacy and limit the amount of sensitive data stored by the app. Ethical considerations are vital for the project, since some users may not wish to be open about their trans identity and therefore would need to conceal their use of the app. This must be at the forefront of the final product to reassure users that their identity is safe.

The requirements elicitation will also explore another feature, a map which displays the location of gender-neutral toilets at businesses such as cafes, restaurants, and pubs. However, this will be considered for further work beyond this project and will be considered out of scope to keep the amount of development to an achievable level. The scope of the project is for services in Liverpool & Merseyside due to the ability to engage with services and their users directly and due to already existing knowledge. However, if successful the app could be expanded to cover the whole of the UK, it would be a matter of gathering the data rather than any technical challenges. Online only services that have no physical footprint in Liverpool & Merseyside would also be out of scope, though some of these may be included in an ‘important links’ page but not as part of the core services covered by the app. The scope of the services included is that they must offer something specific to the trans community, rather than broader services (e.g. the trans focused CMAGIC & TSS counselling services would be included, but not the general NHS counselling service offered by Talk Liverpool.)

## 1.3 Analysis of likely impact

A full impact analysis is included in section x, and the key points are:

* The project, if successful, would increase the visibility of the services available to the trans community and therefore gain the benefit from accessing them.
* Increased visibility of the services could be exploited by those with ill intent towards the trans community causing them to be targeted.
* On balance the positive outweighs the negative

# 2 Account of related literature

# 3. Account of Project Work and its outcome

# 4. Review

## 4.1 Current stage of project work

### 4.1.1 Legal, social, ethical and professional issues (LSEPIs)

A requirement of the project involves following the BCS Code of Conduct (2023), which includes promoting equal access to IT (discussed below, when considering the impact to equality and accessibility) and not to disclose confidential information. Additionally, there are responsibilities to data protection under GDPR, so ICO (2023) guidance must be followed in relation to personal data. Therefore, in addition to gaining the proper informed consent of participants consideration had to be taken to protect the data and anonymity of participants. This included storage of completed questionnaires, with Microsoft OneDrive to be used as per Open University Research Data Management Policy (2021). The names of participants were to be redacted, as was any other statements or information that could be used to identify them so they could be quoted anonymously. The exception to this was any service providers who participated, since by noting them as a provider of a particular service they may be unavoidably identifiable, but they were informed of this and consent gained so that they could choose to opt-in or opt-out.

### 4.1.2 Equality, Diversity and Inclusion concerns (EDI)

Although the application is being developed for a minority community, this does not necessarily mean it automatically meets responsibilities for Equality, Diversity, and Inclusion. Even within the transgender community there are many different experiences that are quite different, trans masculine, trans feminine and non-binary for example and these identities may intersect with other identities such as neurodivergence, race and disability. For transgender people, examining the nature of gender and how it exists in society is often part of the experience of transition and trans feminine people frequently experience what is known as transmisogyny (Julia Serano, 2007), the simultaneous experience of sexism and transphobia i.e. being dismissed as lesser or weak for being feminine, but also dangerous or ‘perverted’ at the same time. However, as a white, neurotypical, trans feminine person there are still unconscious biases that come with this that must be examined. It is also important to note that while the legal framework is important, it may be flawed with for example the Equality Act 2010 containing language considered outdated and offensive to the transgender community such as ‘gender reassignment and transsexual’, as noted by a report by the Women and Equalities Committee (Miller et al, 2015).

The questionnaire for requirements elicitation resulted in respondents discussing some of these issues, making suggestions for transmasculine, non-binary people and those who are neurodivergent, such as having service tags to filter content specifically for identities e.g. transmasculine people. This is not just for the convenience of the user, but also their mental wellbeing as some services that people transitioning from male to female might trigger gender incongruence in those transitioning from female to male, and in my own experience it is common in trans spaces to be aware of these issues.

However, beyond content the coding of the app must also consider accessibility issues, such as users that use screen readers, those with colour blindness and users that may be using a variety of devices or browsers. As Gray states in his CSS Tutorial – Full Course for Beginners (2022), if the font size is set to a specific pixel size, then it will stay at that size regardless of what settings the user might have. This may cause issues particularly for partially sighted users, but also for any user who simply prefers to have larger font. Instead using a ‘rem’ unit will mean that the font size is relative to the root element and will scale accordingly. Additionally, setting fallback fonts improves accessibility by ensuring the text will always be displayed with a ‘web safe’ font.

It was also important to consider how it would be read by a screen reader and with particular care taken when using a property such as ‘display:none’, which not only hides an element from view but also from being read by a screen reader. The pop-in side menu is triggered by toggling a checkbox (by pressing the hamburger menu symbol) and initially this was hidden from view by using ‘display:none’, which made it un-selectable by tabbing through elements. To change this, a style was added to the checkbox so that when it is in focus, the hamburger icon changes background colour as it does when hovered over and the checkbox was then hidden by setting the opacity to 0. The code snippet in figure 13 shows this change.

![Text

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Figure 13 Removal of display:none for screen readers

### 4.1.3 Analysis of the impact of the project

The project, if successful would increase the visibility of services available to the trans community and so would mean that transgender individuals would gain the benefit of accessing them. As these services provide very important and worthwhile things, it could mean that a trans person gets access to essential sexual health care much faster to avoid potentially living with an STD; finds a peer support group to help them with their transition; or a trans-friendly GP who is prepared to offer HRT (Hormone Replacement Therapy) through bridging prescriptions.

However, increasing the visibility of these services could also have unintended negative consequences too. In the last few years some trans related events and organisations have been targeted by far right and ‘Gender Critical’ groups, including protests accusing trans and gender non-conforming people of paedophilia (Hansford, 2023); violence directed at trans people and allies; and faeces smeared on the entrance of a supportive church (O’Thomson, 2023). During requirements elicitation one of the respondents raised this as a potential risk for the app: “not sure if this might allow terfs to find and cause problems for those services/users who attend that place?” (n.b. ‘terf’ stands for Trans Exclusionary Radical Feminist and is a disparaging term for people from a feminist tradition who are anti-trans, but it is often used as a synonym for the broader ‘Gender Critical’ movement or all people who are anti-trans). There is a risk therefore that this app would provide a way for those with ill intent to target these services.

However, on balance, the positive aspects of the app strongly outweigh the risks it may present. Those who wish to target the trans community could find out about these services through other means already and although it is important to take reasonable precautions for safety, it is also important to increase the visibility and awareness of the transgender community. Indeed, one of the main organised events for the community is ‘Transgender Day of Visibility’ for this purpose.

## 4.2 Review of project management

## 4.3 Personal development

# 5. Epilogue

# 6. References

McAuley, P. (2022) ‘Trans lives 'at risk' in Liverpool, say support group claims’, *Liverpool Echo*, 24th November [Online]. Available at <https://www.liverpoolecho.co.uk/news/liverpool-news/trans-lives-at-risk-liverpool-25594158> (Accessed 4th July 2023).

TransLiverpool Wiki (2023) *Trans Liverpool Wiki* [Online], 7th April 2022. Available at [www.transliverpool.com](http://www.transliverpool.com) (Accessed 29th April 2023).

# 7. Appendices