

Project Description:

Problem: Lack of a single web-based platform, with a simple and more user-friendly web app – feasible to use for anyone, which facilitates the indigenous artists and skilled workers belonging to marginalized communities (specifically the transgender community) in showcasing their talents and connecting with the larger audience.

“Through a cross-sectional study design, a sample of 189 transgender community living in twin cities of Rawalpindi and Islamabad was selected using snowball sampling technique.

The mean age of our study population was 29 ± 7.88 years. Around 94.2% (n=178) were unemployed. Majority (65.6%) were having monthly income of less than 10000; much less than the government's new laid-down minimum pay scale of Rs. 14,000/month (announced in 2016 budget).” [1]

Transgender are one of the neglected communities of Pakistani Society. Even after the passing laws on Transgender Rights, the amount of jobs provided to them are not enough to cater to their daily needs and earnings. Those who are provided with jobs are usually subjected to public harassment even after the existence of law against it. In addition to that, they lack educational and vocational training to support themselves. [2]

Relevance to real world: Transgender rights had been a taboo topic in Pakistan up until the ‘Transgender Person (Protection of Rights) Act 2018’ bill was passed in the Senate and the National Assembly, stating that transgender people have "fundamental rights to inheritance, education, employment, vote, hold public office, health, assembly, and access to public spaces and property. It confirms that they enjoy all the rights that the nation’s constitution grants to its citizens." Despite this, there is a long-standing cultural and societal prejudice against people who identify as transgender and one of the most important and basic requirements, employment, is often either denied or very difficult to get in the current circumstances. [3]

Motivation: As part of our entrepreneurship course, we worked closely with the transgender community to learn their problems and identify the skillsets to devise a platform which can help them earn a respectable and easy living, accordingly.

Later in the course, we opted for “food resources” and went forward with the idea of the trans-cuisine. As a learning from our course (through field work and online reviews/research), we reiterated our

thought process and after much consideration and guidance from the mentors and the 'Guru(s)' (the term used within the South-Asian Transgender community for their leaders) of the community itself, we decided to design a platform which can highlight most of their skills and give them a gateway to learn and achieve more. Thus, came in the idea of "The Third Space".

This is an e-commerce platform which will work like a virtual mall, each vendor/employee having their own shop (profile). To simplify process for them, we decided to implement a 3-step application which will help the seller to upload their products image on the website.

In line with the simplification process, we will be incorporating the non-conventional and easier payment methods of cash transactions, i.e. easyPaisa and JazzCash (both are local mobile wallets that allow the users to perform cash transactions using their cellphones only. It is also to consider that easyPaisa has over 70000+ shops across Pakistan which helps for a wide coverage).

Additionally, we will also incorporate 'Urdu' as a mode of communication alongside English.

Originality/Novelty: We aim to introduce an e-commerce platform, which aims not at making profit or helping well-off companies do better, rather we aim to provide a platform to connect our audience with artisans and skilled workers allowing them to sell their products or showcase their skills. Although there are other platforms doing similar work, such as "Kunayah" [4] and "Vceela" [5], our platform will also be hosted on an app that will be simple use, basically put up an ad in no more than 4 steps. In our locality, such an app with simple flow and with the product that aims to facilitate the community does not exist. We are bent on making our platform non-profit and to invest most of our generated revenue in educating and training the transgender community.

CS Rigor: Our platform will require mostly the application of concepts learned in Databases, Web and App Development, and Data Science. The idea is to have a database that also contains images, an easy to use and sleek mobile app, web application – apart from that, Data Science techniques will allow us to handle, manipulate this data in the best, most responsive way possible, that is to say the code will be well refactored and keeping the application size as minimal, albeit as fast, as possible. We also aim to apply principles of Search Engine Optimization (SEO), by using relevant and specific keywords in our HTML coding, using proper indexing techniques, cross-linking between pages and so forth, allowing more prominence to our website.

Team Dynamics:

The team comprises of three individuals having diverse skillsets and interests. The details about each team member are as follows:

Aiman Ahmed Moin: Pursuing a minor in Mathematics along with CS major. Taken courses in the fields of Web and App development, Data Sciences, Artificial Intelligence, Computational Intelligence, Understanding Social Networks, Illustration & Design and Entrepreneurship. Having strong command over databases, server-side development, communication and management skills.

Possible roles: Working on the server-side Development of our Website and Databases. Incorporating the knowledge of Data Science Techniques, Artificial Intelligence, Design Methodologies and Entrepreneurship in this project.

Ahsan Qadeer: Having strong hold over full-stack Development, JavaScript, Node and MongoDB. Taken courses in the fields of Game Development, Artificial Intelligence, and Understanding Social Networks. Research interest lies in understanding consumerism dynamics within our society, and towards making our spaces more inclusive for marginalized and diverse communities. This lets me put my interdisciplinary knowledge acquired at Habib into practice. Also worked as Research Assistant at DevAct working on User Interface & Design of chatbots.

Possible roles: Working as a full-stack developer along with the entire team. Majorly focusing on Databases, UI design, Quality Assurance, Datasets, and Artificial Intelligence along with utilizing the knowledge of consumer goods in the context of e-commerce.

Ubaid Ali: Pursuing a minor in English & Comparative Literature. Research interest lies in connecting the literature, culture and anthropological diaspora with Computer Sciences to understand and find solutions of new-age problems in society. Have strong command over communication, presentation and analytical skills. Taken courses in Natural Language Processing, Design Research, Artificial Intelligence, Data Sciences, Web and App development, Understanding Social Networks and Entrepreneurship. Strong Command over UI/UX designing.

Possible roles: Working on the UI design, assuming the role of Scrum Master, working with databases and client-side development, natural language processing, communicating with external sources regarding the business plan in addition with looking after the design of the product and making sure it aligns with the end-user expectations.

Challenges: Apart from technical challenges, we will also face challenges in finding enough content to make available on our website for it to become a functioning e-commerce space. For this we have onboard with us a few NGOs who are working with transgender communities that will help us in making resources available for our marketplace. Combatting prejudices within our society when it comes to interactions with transgender people will also be another challenge and to counter this, we not only will share their products with our audience, but also their skillsets and stories, giving them a greater scope and recognition for finding employment opportunities.

Apart from that we are looking at targeted advertising through social media, and to provide each user with personalized ads based on their e-commerce history.

Feasibility: The project feasibility lies in our end-user being able to use our mobile app and web application with ease and we are incorporating this idea by designing our software to be as user friendly and easy to understand as possible (using Urdu language, clear instructions and less steps in uploading their items on our platform).

Deliverables:

As part of our deliverables, we will be submitting:

Website: We will be sharing a link to a live website hosted on a server. The website will contain the following modules:

- Artisans will register and share their works as sellable items
- Every registered personnel can open their own 'shop' of items alongside being a customer of other shops
- Featured artisans/artists
- Trending products with reviews (all and area wise)
- Easy product (picture) upload method for vendors/artists/artisans
- In addition to mentioning their skillset(s) so that they can be approached by potential employers, there will be an entire section on our web-based platform catering to the 'performative arts' considering the artists from such communities who can then be promoted to achieve more audience.
- Users can search items, buy an item, contact the artisan

- Easy payment methods: Cash on delivery, easyPaisa and JazzCash
- Different categories such as handicrafts, jewelries, bags and other locally manufactured items

Mobile App: We will be uploading an android application on the play store as well. The app will be built for our artisans who can upload their products through the app in no more than 3 steps, apart from that it will provide notifications for all seller-related stuff.

- Login -> Picture Upload -> set tags (using pictures/logos), price and quantity -> upload (verification in 24hr). **Viola!**

Report: The report will contain a complete research of our project including the abstract idea that we started with, the statistics that were used to make our project more suitable for the real world, and the different technologies used, people and NGOs contacted for support and our follow up.

Contributions: We will be submitting another report that includes a detailed overview of contributions made by each team member. This will include our Agile report and summary of our Scrum meetings and sprint backlog.

References:

- [1] The Pan African Medical Journal. 2018;30:96. <https://www.panafrican-med-journal.com/content/article/30/96/full/>
- [2] <https://dailytimes.com.pk/353990/workplace-harassment-law-in-pakistan/>
- [3] Qureshi, K. (2019). The impact of Transgender Persons Act, 2018 on the intersex community in Pakistan. <https://ueaeprints.uea.ac.uk/71847/>
- [4] (<http://www.kunayah.com/>)
- [5] (<https://www.vceela.com/>)