

# DATA VISUALISATION CHALLENGE FOR WOMEN'S SAFETY

Red Dot Foundation in partnership with the Consulate General of Ireland in Mumbai hosted a Data Visualization Challenge on Women's Safety with University Students from India and Ireland. The program started in November 2021 and ended in March 2022.

## **Objective**

The aim of the challenge was to encourage students to analyze data, understand patterns and trends emerging from it. The findings could either point to contributing factors of gender and sex based discrimination and violation, or identify correlated features that need to be challenged. The participants then came up with innovative and creative ideas to visualize the issue to a larger audience by highlighting the problem and recommending solutions. This journey started from 28th January, 2022 to 4th March, 2022.

## **Registration Process**

A registration form was circulated across universities in India and UCD for students interested in the subject of this challenge. The form was active for a month from 8th November, 2021 to 8th December, 2021 and the number of valid registrations of students above 18 years across both countries was 209. With second and third confirmations, the number of interested students was 96 with 38 Irish students and 58 Indian students. These 96 students were divided into 19 teams to take on the challenge. Discord was used as the platform for communication for all students to protect their identities from being shared under the General Data Privacy Rules, 2016.

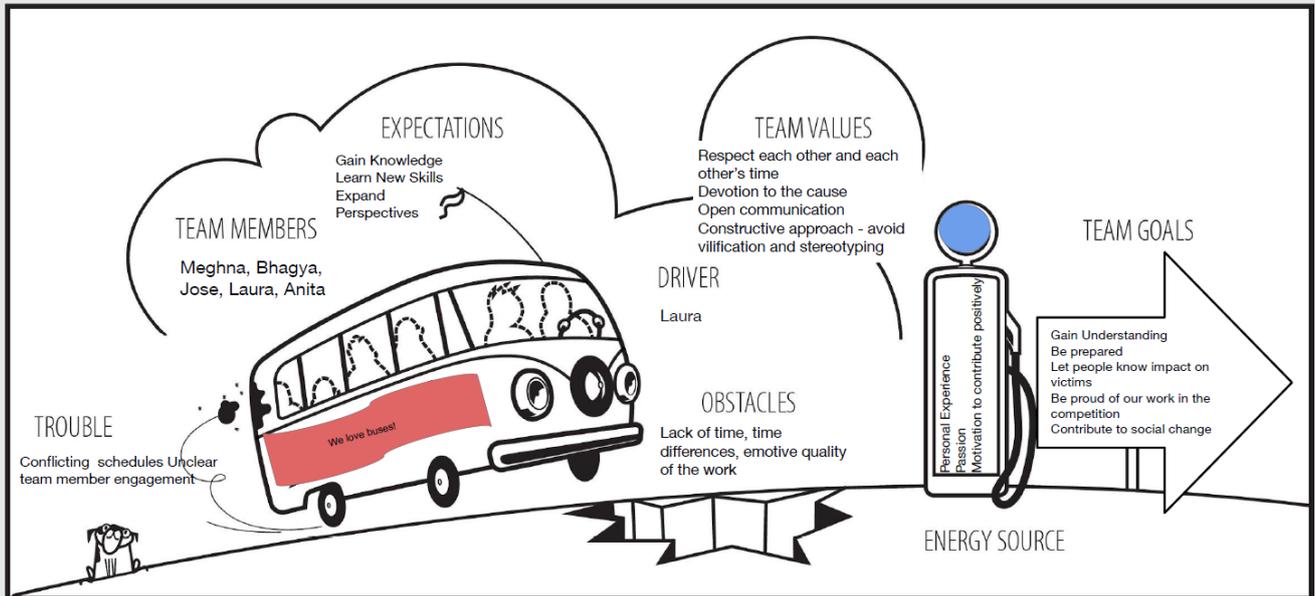
## Team Structure

Every participant was placed in a diverse team with students from India and Ireland. This collaboration was possible with the partnership of University College of Dublin and Education in Ireland. Each team had students from different faculties like arts, social sciences, dentistry, computer science, engineering, data science, psychology, ad media, law and so on. Each team comprised 2 Irish students and 3 Indian students, with every team mandatorily having at least one female participant.

## **Introductory Session + Panel Discussion**

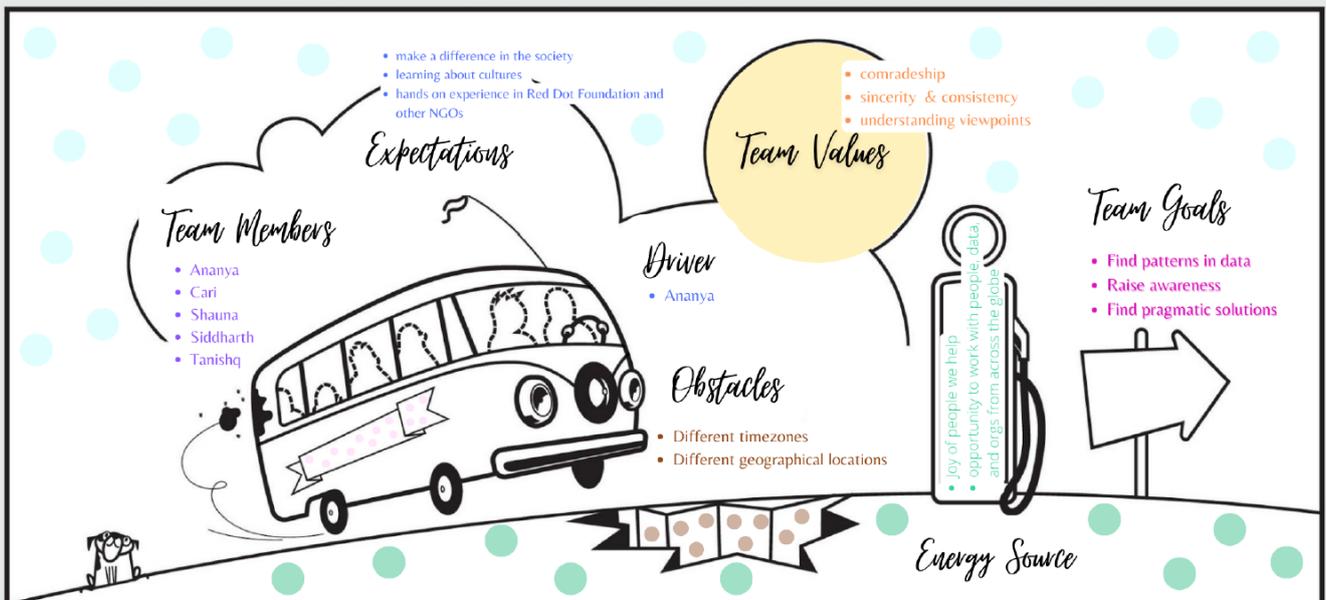
On 28th of January, 2022 to kick start the challenge, a panel discussion was organised on the importance of data visualization for women's safety. The session started with an opening address by Ms Alison Reilly, Deputy Consul General, Consulate General of Ireland in Mumbai on the objective and intention of this challenge. Thereafter, the panel discussion began with panelists - Prof. Eleni Mangina, VP (International) College of Science. Professor of Computer Science, UCD College of Science, Dr Despoina Afrodit Milaki, NGO Representative at the United Nations, International Presentation Association, Ms Michelle D'Souza, ICT Consultant, EHSAS, SNEHA, Ms Rohini Kadam, Lead Campaigner/ Facilitator, Right to Pee, CORO Community Youth Collective, Mr Harish Iyer, Founder, The Jimme Foundation with Ms ElsaMarie DSilva, Founder, Red Dot Foundation as the moderator. The discussion focused on the use of data visualizations techniques to help tell a story about numbers, and the local context in which the violence occurs in different countries. Panelists also deliberated on ideas through examples on how to engage communities with data, especially the marginalized communities that are often underrepresented in such studies. Right after the online public event of the panel discussion, the introductory session for the participants started. By this time, the participants had already been introduced to their teammates on Discord. The teammates were given the task to design a charter for their teams along with their expectations of the challenge, their team core values that each of them must abide by, their source of energy, their collective team goal, the expected internal obstacles and the troubles they might face as a team. This activity enabled them to get to know each other as participants and as individuals with a value system. Here is the link to the video recording of the [session](#).

# TEAM CHARTER CANVAS



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## Masterclass on Gender Sensitization

On 1st February, 2022 Ms. ElsaMarie conducted a masterclass on gender sensitization. She introduced the idea of understanding gender based unconscious biases that each individual has. Through the class, she encouraged ways to start critical thinking and challenging such behavior in oneself. She also discussed the harms of gender stereotypes and how these can transform into gender based violence. The session ended with three activities for the teams. First one was to create a Survivor's Persona with negative trends, positive trends, fears, hopes, opportunities, headaches and the needs of a survivor. The next activity was to use the same indicators to create a Perpetrator's Persona. And the last activity was to create an Empathy Map for survivors. These three activities encouraged the teams to walk in the shoes of their stakeholders for whom they will be visualizing. Here is the link to the [video recording](#) of the masterclass.

**PERSONA CANVAS**

**NEGATIVE TRENDS**  
Shame, no confidence, alone, cannot open up to someone, must stay professional even though it might have happened at work, experiencing trauma when meeting the person every day, if social media is involved there may be personal information/ images shared that you cannot control

**POSITIVE TRENDS**  
If charges are pressed, others may come forward, attention will be drawn to violence like this and further action may be taken by government etc. Support groups may be available to share experiences and stop you from feeling alone

**HEADACHES**  
Pressing charges, having enough evidence, overcoming legal barriers, impossible if against someone in power. Family may discourage you from making it public

**FEARS**  
Losing your job, affecting your career/ reputation, falling out with co-workers, may be called names

**OPPORTUNITIES**  
There may be a better workplace where things like this don't occur, support groups may give recommendations for areas of work that are safer, if something happens to someone else you can help them from experience

**HOPES**  
Things will improve gradually with international attention and working towards documenting safe spaces, charging perpetrators. Hopefully in the future perpetrators are less inclined to do things if they know they get in trouble

**SURVIVOR**  
Guidance, help from peers, understanding, not to worry about losing their job, legal assistance if they want to press charges

**NEED**

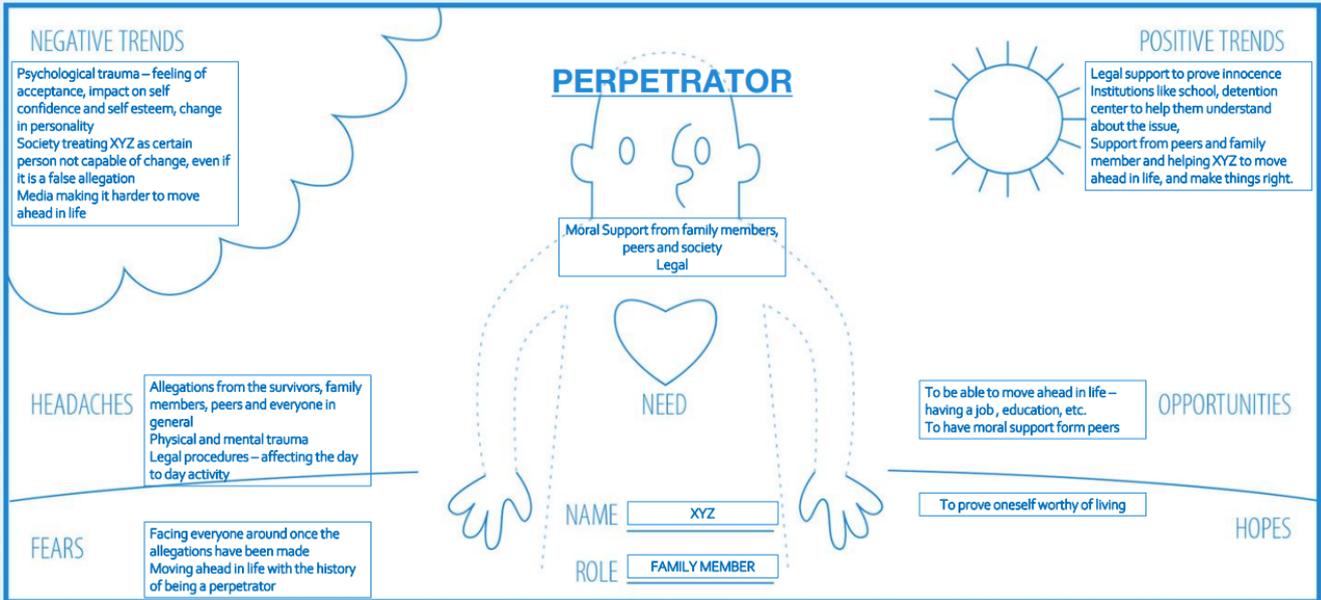
**NAME** KLM  
**ROLE** Working Professional

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Cristina Marin

# PERSONA CANVAS



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Seema Kumari

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# EMPATHY MAP

TEAM 11



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## Masterclass on Data Analytics

On 4th February, 2022 in collaboration with the professors of University of College Dublin, we organized a masterclass on understanding data analytics which showed the importance of basing their interventions on data, and the rigor of analyzing the data. The masterclass was conducted by Prof. Eleni Mangina and her associates Suzan Leavy, Liliana Pasquale and Vivek Nallur. They also used tools like the Jupyter Notebook to decode study material given to them. Here is the link to the video recording of the masterclass.

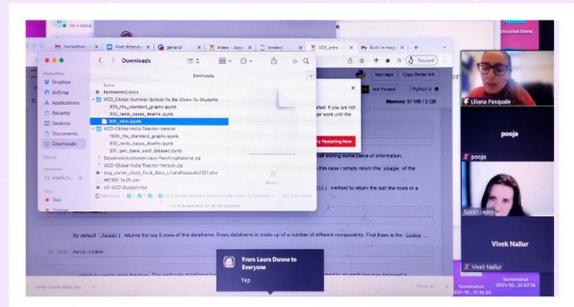


### Data Challenge for Women's Safety

Masterclass on Data Visualisation

4 February, 2022

The Masterclass covered topics related to data analytics and illustrated its role in uncovering insights about societal issues.



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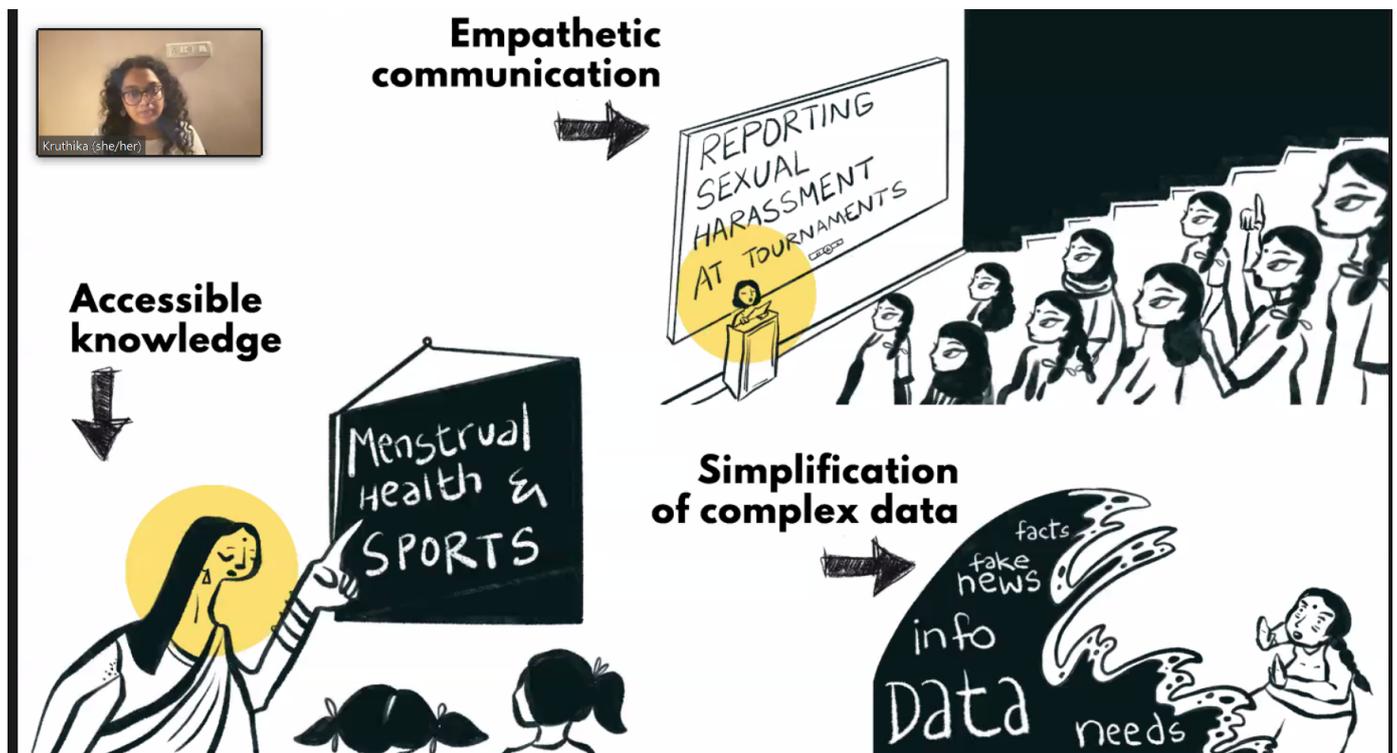


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## Masterclass on Data Mapping and Community Engagement

On 11th February, 2022 the third masterclass was conducted for the participants on how to visualize data for a larger audience. This masterclass was conducted by Ritu David, Founder - Data Duck, she discussed her journey of understanding behavioral sciences to decode data for a social cause. She gave an example of how they built Safecity platform with empathy for the survivors who will be reporting about their experience of a sexual offence, how do colours, language and engagement time on the platform should be sensitive towards the needs of its users. The second half of the class was conducted by Kruthika NS, the Workplace Doodler who brought in the perspective of using data for fun. She explained her creative process of simplifying complex concepts through comics and pictorial representations for the better understanding of a larger audience. She also focused on the power of gaze and building narratives around numbers to make it look less threatening and more informative for all. Here is the link to the [video recording](#) of the masterclass.



## BUILDING RESEARCH-BACKED NARRATIVES



After the last masterclass, all 12 teams were geared up for their visualizations. To assess the students to think in the right direction office hours were offered to students on 16th and 17th of February, 2022.

## The Jury

The jury panel for the challenge consisted of specialists from different fields of profession. Here are the details of the jury panel - Prof. Eleni Mangina (Professor of Computer Science, UCD), Claire Kearney (Office Manager, Training Department, SafeIreland) Stephen Ryan (Founder, Narration & 24 Stories), Ritu David (Founder, Data Duck), Swati Mohapatra ( Communications Advocacy & Partners Specialist, UNICEF), Gautam Singhal (Senior Superintendent of Police, Economic Offences Wing, Vigilance Bureau, Punjab), Rakesh Arya (Deputy Inspector General of Police, Administration & Training for the Haryana Police), Aafreen Siddique ( Regional Engagement Lead, UNDP Asia Pacific), Reena Dayal (Board Chair, Quantum Ecosystems and Technology Council of India), Bhanu Prasad M N (Coach - Impact Innovation, Entrepreneurship, Partnership, Digital Impact Square, A TCS Foundation Initiative) and Kaviita Ryali (Principal Program Manager, Microsoft).

**Meet the Jury of the Data Visualization Challenge** Date: 4 March

Register: [bit.ly/DC\\_FP](https://bit.ly/DC_FP) Time: 6 - 7:30 pm IST | 12:30 - 2pm GMT



**Ritu David**  
Founder  
The Data Duck



**Stephen Ryan**  
Founder  
Narraton & 24 stories



**Kaviita Ryali**  
Principal Program Manager (Tech)  
Microsoft



**Gautam Singhal**  
Senior Superintendent of Police,  
Economic Offences Wing,  
Vigilance Bureau, Punjab



**Swati Mohapatra**  
Communication Advocacy &  
Partnership Specialist,  
UNICEF



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**Reena Dayal**  
Board Chair, Quantum  
Ecosystems & Technology  
Council of India



**Rakesh Arya**  
Deputy Inspector General of Police,  
Administration & Training for the  
Haryana Police



**Bhanu Prasad M N**  
Coach - Impact Innovation,  
Entrepreneurship, Partnership, Digital  
Impact Square, A TCS Foundation  
Initiative



**Aafreen Siddiqui**  
Regional Engagement Lead  
(Government Innovation)  
UNDP Asia Pacific



**Prof. Eleni Mangina**  
VP (International) College of Science  
Professor of Computer Science  
UCD College of Science



**Claire Kearney**  
Office Manager  
Training Department  
Safe Ireland



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## The Top 6 Finalists

On 25th of February, 2022 the deliberation on shortlisting the top 6 teams for the final event took place through an online Jury meet. This discussion focused on the following parameters for scoring the visual submissions of the teams were originality, aim, stakeholder mapping, storytelling, innovation, scalability and inclusivity. All the above-mentioned parameters weighed 10 points each, making a summation of 70 points for the first round of visualization submission. Subsequently, the Jury panel with online and office discussion on 1st March, 2022 announced the top 6 finalists for the Data Visualization Challenge, 2022. Following were the top 6 finalists: Team 1 - Crime in Patna, Bihar, Team 4 - Unexpected Assaults, Team 5 - Traveling in Women's Shoe, Team 7 - Post-Violence Experience of Survivors, Team 9 - No Way Home, Team 10 - Domestic Violence.



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## **Feedback**

Marion, Participant: *"I really enjoyed the intercultural exchange and being able to compare and contrast first-hand the situation in regard to GBV in India and Ireland, which gave me a lot of insights on both countries. I also enjoyed the masterclasses, especially the one on data visualization. It really illustrated the importance of storytelling when it comes to making insights from data accessible to a wider audience."*

Mayuri, Participant: *"I have attended all the sessions and all meetings related to our challenge and I have gained much knowledge about data visualizations and collecting data. Thank you for the team guidance."*

Reena Dayal, Jury: *"It was a great exercise of going through each visualization, these were some great projects and I loved being on the jury panel."*

We would like to thank the Consulate General of Ireland, Mumbai, Ms Alison Reilly - Deputy Consul General, Ms Wendy Dsouza and Prof. Eleni Mangina for partnering with us on the project and sponsoring the winning prizes.