

OABROAD



covid c03

The screenshot shows the OABROAD COVID dashboard. At the top, there is a world map where certain countries are highlighted in red, blue, or orange. To the left of the map is a sidebar with links: Home, Analysis, Theory, Team, and Contact. Above the map is a search bar labeled "Search location" and a dropdown menu labeled "Select a location group" set to "All". To the right of the map is a sidebar titled "Selected Location" listing various countries. Below the map is another dropdown menu labeled "Select a subject area" set to "Arts & Humanities (Score)". At the bottom of the dashboard is a table with the following data:

Institution	Location	Group	COVID Risk	Cost of Living	Travel Restrictions	Safety	Arts & Humanities (Score)
Sapienza University of Rome	Italy	4	Medium	Low	Low	High	80.50
Technische Universität Berlin (TU Berlin)	Germany	4	Medium	Low	Low	High	64.30
Massachusetts Institute of Technology (MIT)	United States	1	High	Medium	Low	Low	87.10
Royal College of Art	United Kingdom	1	High	Medium	Low	Low	0.00
Stanford University	United States	1	High	Medium	Low	Low	91.40
University of Bristol	United Kingdom	1	High	Medium	Medium	Low	74.00
University of Cambridge	United Kingdom	1	High	Medium	Low	Low	97.90

On the far right of the dashboard, there are links for "GitHub" and "PDF".

Dashboard URL:

<https://tabsoft.co/3IATHDs>

Have you ever felt stressed to make decisions in the past 2 years?



PERSONA



Alice

All the information I can find isn't centralised and is hard to combine and compare.

BIO



A high school student wants to study abroad.

GOALS



Select the University to study which is best for her.



Find and compare information effortlessly and efficiently.

PAIN POINTS



It takes a lot of research time to make a decision.



Hard to compile and compare the information.



Information is not centralised.

NOTE: PERSONA MADE BY USER RESEARCH (N = 42)

SOLUTION

Our Vision

Through Oarbod, our team strive to support **students who want to study aboard** from all around the world, to **select their dream university**, to have a transformative learning experience **during the pandemic**.



PROCESS



User Research



Survey users' needs, motivations and pain points.



HMW and Crazy Eights Ideations.



Data Engineering



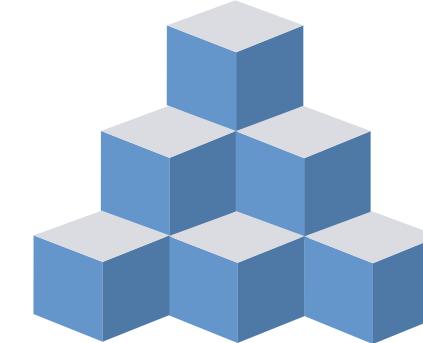
Filter proportion of missing data.



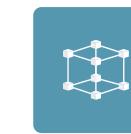
Multiple Imputation by Chained Equations (MICE).



Feature selection by user research.



Data Modeling



Dynamic Time Warping (DTW) distance metric.



Define Optimal K based on the dendrogram.



Manhattan distance matrix.



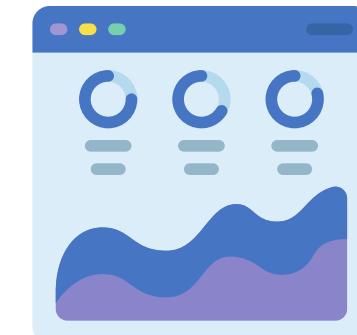
Elbow, Average Silhouette and Gap Statistic methods,



Combine Multiple Clusters by Nominal categorical.



Define Optimal K by AIC and Gap Statistics.



Dashboard



Wireframe.



Tableau.



Usability Testing.

EVALUATION

PERFORMANCE

STABILITY



Average Silhouette Width.



Dunn Index.



The Agglomerative
Coefficient.



The Cophenetic Correlation
Coefficient.



Domain knowledge.

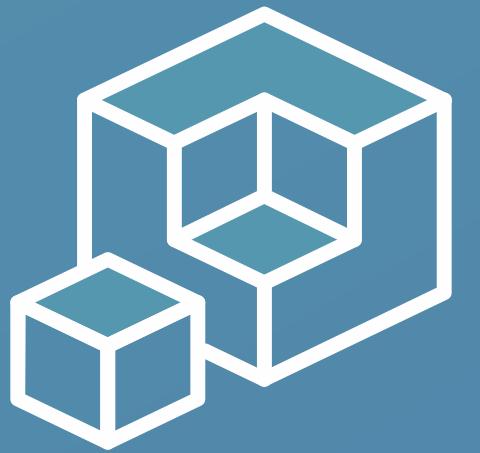


Adjusted Rand Index.

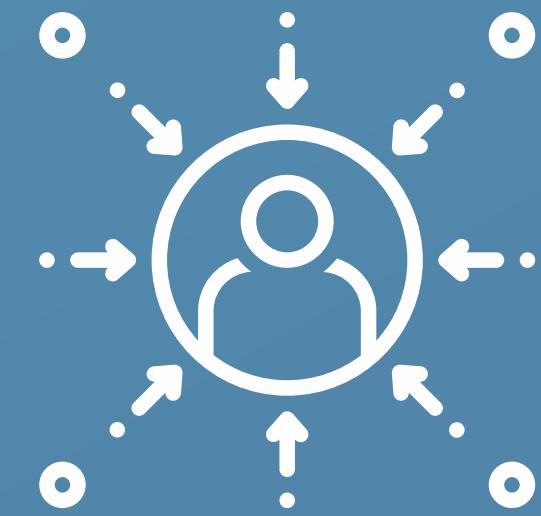


Random Forest.

LIMITATIONS



Missing Data



Bias

OUR TEAM



Christopher Tong
Speaker



Sanghyun (Sam) Kim
Speaker



Anujin Munkhbayar
Demonstrator



Lawrence Chen
Speaker



Xulin Wang
Q&A/Support



Chengyi Jin
Technical Support



Q&A

4 minutes

Q&A Time!

