

INTRODUCTION

Global air transportation network

The air transportation network is a complex network which has the properties of small-world networks and scale-free networks. The degree distribution of the nodes displays a heavy-tailed distribution. The hubs of the network have large connectivities and long-distance connectivities at the same time. The importance of air transport lies in its ability as an economic engine to generate and support jobs, strengthen trade and connectivity between people and countries, promote tourism, and connect remote communities. The air transportation network is a complex network which has the properties of small-world networks and scale-free networks. The degree distribution of the nodes displays a heavy-tailed distribution. The hubs of the network have large connectivities and long-distance connectivities at the same time.

PURPOSE

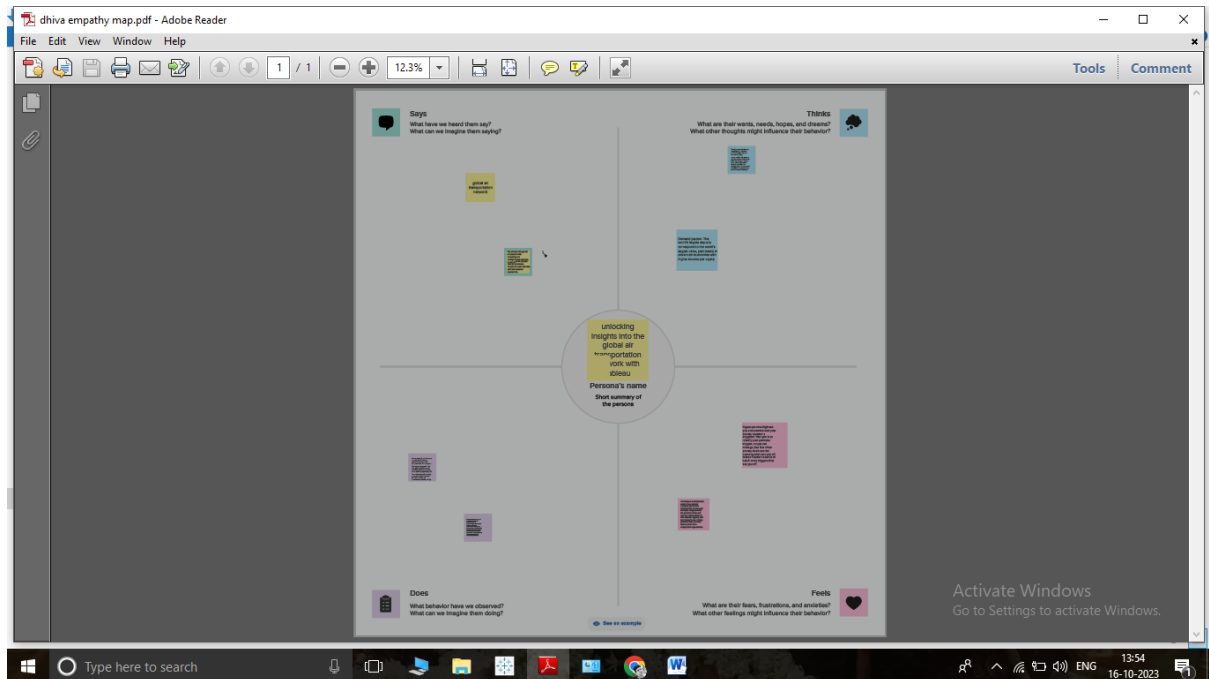
The air transportation network is a complex network which has the properties of small-world networks and scale-free networks.[1][2][3] The degree distribution of the nodes displays a heavy-tailed distribution. The hubs of the network have large connectivities and long-distance connectivities at the same time.[1]

An anomalous property of the air transport networks is that nodes with relatively low degrees may have very high betweenness centrality. It is an important observation related to the robustness of complex networks. According to this finding the critical points of the system are not necessarily the hubs, but some other cities which uniquely provides routes to certain regions.[1][2][4] For example,

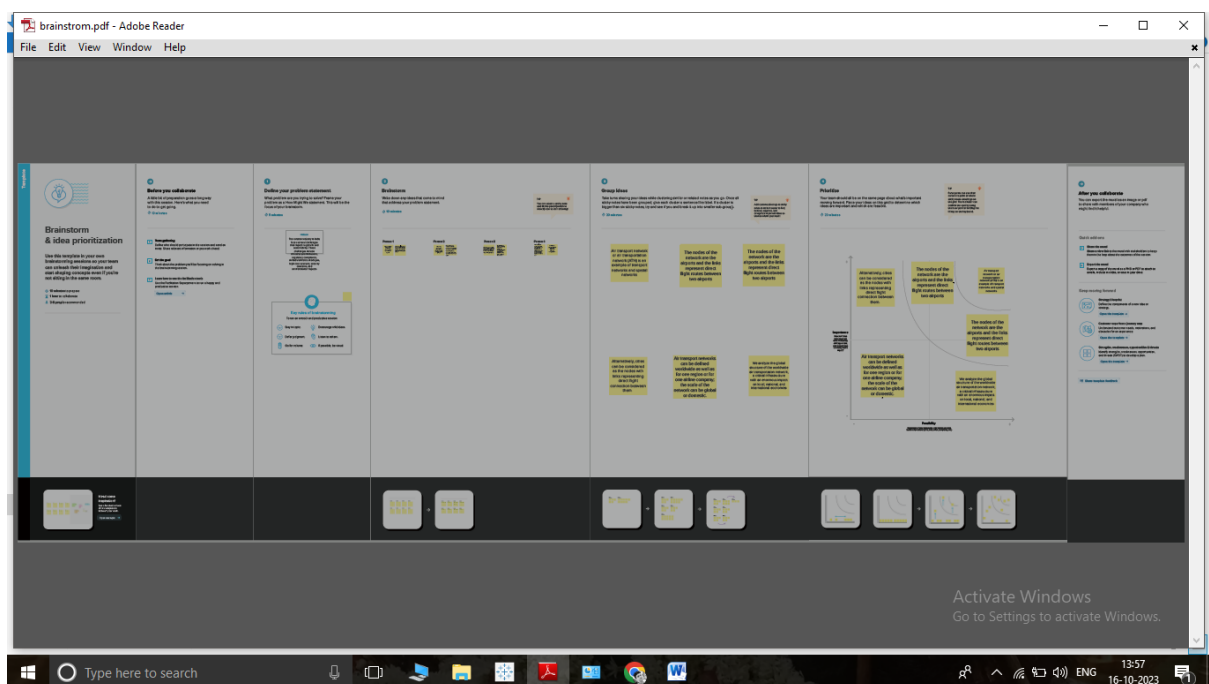
Alaska can be easily isolated from the other parts of the worldwide air transport network.

PROBLEM DEFINATION&DESIGN THINKING

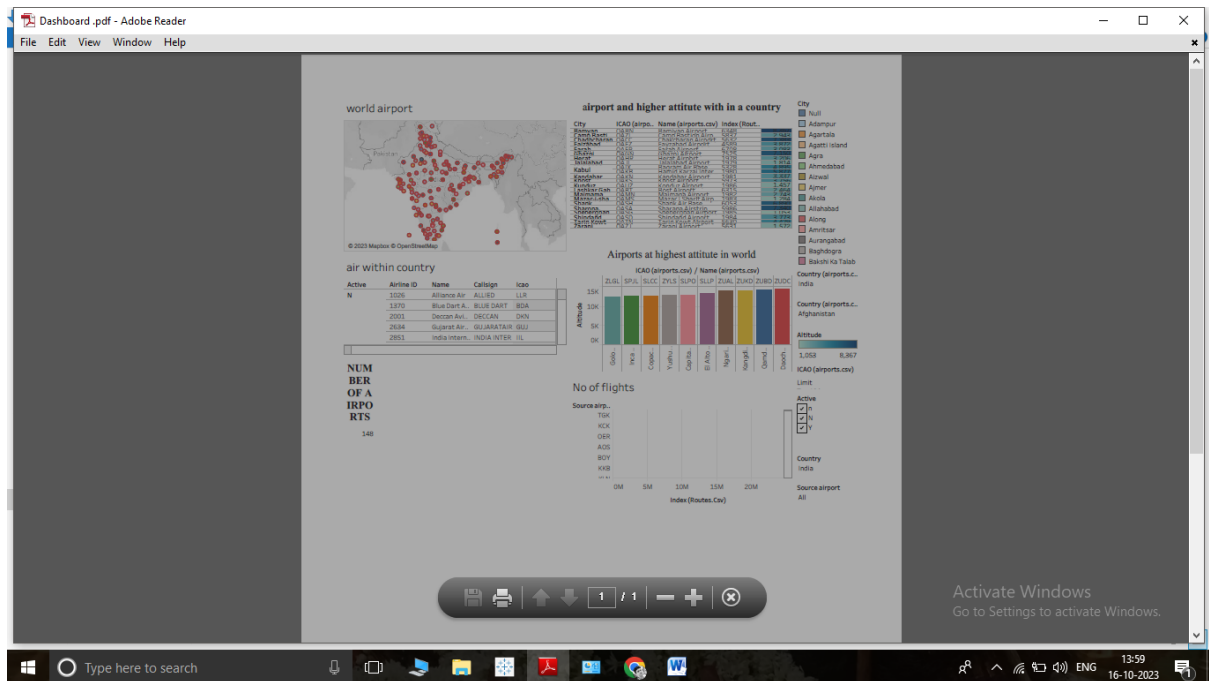
EMPATHY MAP



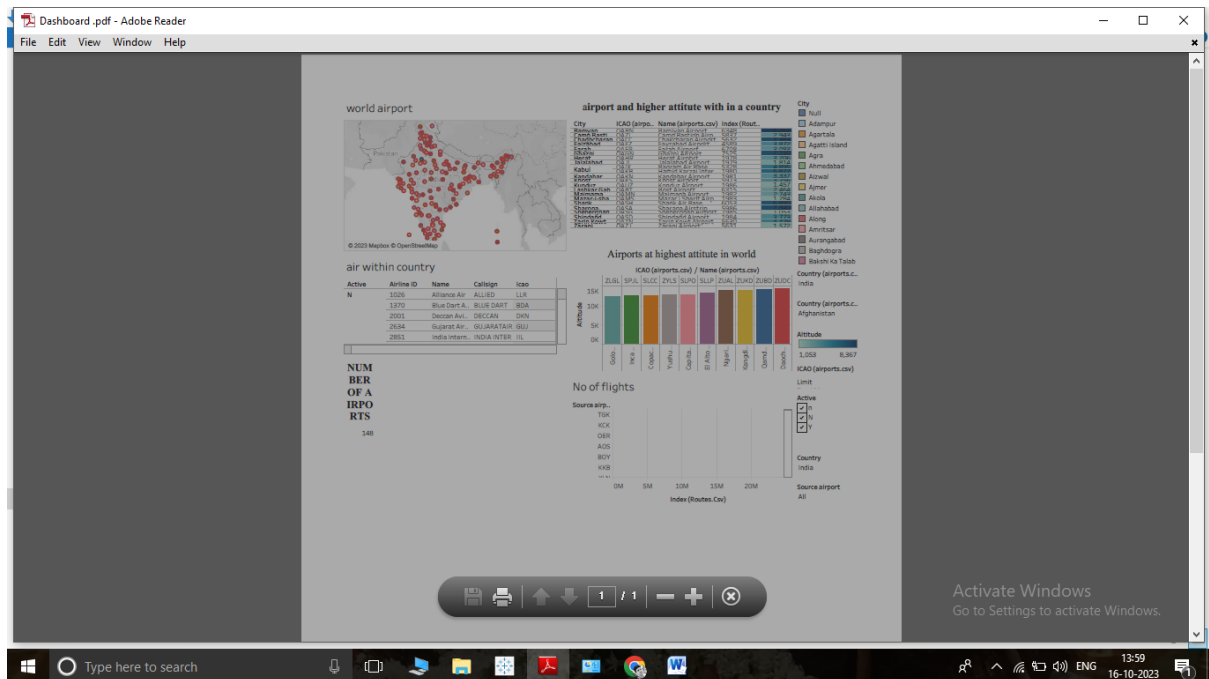
2.2 IDEATION&BRAINSTORMING MAP



RESULT(DASHBOARD)



STORY



ADVANTAGES

High Speed. Air is the type of freight capable of traveling long distances in short periods of time. ...

Fast Service. ...

Send almost everywhere your freight. ...

High Standard of Security. ...

Natural Route. ...

There is less need for heavy packaging. ...

Risky. ...

Cost

DISADVANTAGE

Risky. Air travel is the riskiest mode of transport, since there can be considerable losses to goods, customer and crews as a result of a minor crash. ...

Cost. ...

Some Product Limitation. ...

Capacity for Small Carriage. ...

Enormous investment.

APPLICATION

We analyze the global structure of the worldwide air transportation network, a critical infrastructure with an enormous impact on local, national, and international economies. We find that the worldwide air transportation network is a scale-free small-world network. In contrast to the prediction of scale-free network models, however, we find that the most connected cities are not necessarily the most central, resulting in anomalous values of the centrality.

CONCLUSION

As the industry continues to evolve, IATA will remain an important player in shaping the future of air transport. In conclusion, the International Air Transport Association has been instrumental in developing and improving the air transport industry.