Says

What have we heard them say?
What can we imagine them saying?

Thinks

What are their wants, needs, hopes, and dreams?
What other thoughts might influence their behavior?

Ivy Hogg – Supply Chain Planner – Caterpillar Inc. | LinkedIn:

Im a creative and process-oriented leader with a commitment to continuous improvement. I have experience in manufacturing internal logistics perishable logistics transportation software …

This includes information about airlines:

including their IDs, name aliases, IATA and ICAO codes, callsigns country of origin and active/inactive status. Similarly, it also covers route details such as airline sources to destination airports along with essential details like codeshare stakeholder if any stops required during this journey along with the type of aircraft being used for that particular journey.

Network models of air transport:

The complexity of the air transport network has led many to apply network science to better understand its properties at macroscopic (network properties), and mesoscopic (community properties) levels. Existing work is abundant with snap-shot analysis of network structure (i.e., degree profile, modularity, closeness). However, longitudinal analysis is rare, because the data is expensive to obtain. This section will review both existing research and conduct longitudinal case studies on sub-regions of the air transport network.

global air transport network in 2015:

Centrality distributions Figure 3 shows the complex network of airport (nodes) connected by directed and weighted air transport links. Node size reflects weighted degree and link line-width indicates number of seats per month (aggregated over the flights). (a) global network over one example month comprises of 9033 nodes and 101042 links; and (b) a number of domestic sub-graphs (national), which comprises of 9032 nodes and 53496 links.

Multi-point entropy maximization models:

Pairwise models suffer from the lack of competition between nodes [30, 31]. As such, they tend to work for non-competitive interactions and cannot accurately describe the competitiveness nature of the global air transport industry. Multi-point models consider all possible flows simultaneously and attempt to discover the most likely combination.

World-Air-Transport-Statistics---Data-Visualization-in-Tableau

Using Tableau 10.0 designed and developed workbooks, dashboards, global filter page, and complex parameters based calculations. Presented key findings and insights about the Airline Traffic Data, passengers carried, luggage carried by airlines and Airport statistics.

unlocking insights into the global air transportation network with tableau

Journal of International Logistics and Trade – Emerald Insight:

2.3 Robustness of air transportation and high-speed rail networks Aside from SNA air transportation and HSR networks have been analyzed as complex networks in the frame of graph theory in order to understand network robustness which refers to the ability to avoid malfunctions when an emergency arises. 2.3.1 Air transportation networks

Domestic network centrality and relation to wealth:

The global air transport network includes both international and domestic flights, and the latter can be regarded as a set of sub-graphs. Figure 3d and e demonstrated that the rank distribution of both the city's population and airport weighted degree fit an exponential distribution.

Data availability and network construction:

Several air transport network data sources are available from academic and commercial databases. One of the most widely used commercial databases is the purchased OAG data. This case study paper will use a single month's sample in the year 2015, as well as open air transport data obtained from the US Bureau of Transportation Statistics to demonstrate results.

Unlocking the World One Vision for … – ACI World Insights:

He successfully led the Latin American and Caribbean Air Transport Association (ALTA) between October 2017 and May 2020 promoting positive change in the organization. Prior to joining ALTA Luis Felipe served as World Fuel Services' Vice President Supply Development for Latin America and Caribbean where he was responsible for improving World …
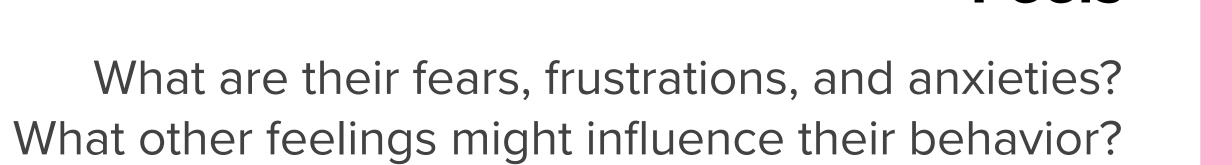
Global Air Transportation Network that contains information on airports, airlines, and their routes. The dataset includes details such as names, cities, countries, codes (IATA and ICAO), longitudes, latitudes, and altitudes of airports across the world with detailed time zone and daylight saving time data.

There is a **guided project** available that uses Tableau to analyze this dataset and create dashboards and stories. The project aims to unlock insights into the global air transportation network by analyzing the dataset

Does

What behavior have we observed?
What can we imagine them doing?

Feels

What are their fears, frustrations, and anxieties?
What other feelings might influence their behavior?

See an example