

I have chosen to focus on the airline industry and its corresponding hub and spoke system for my final presentation. While complex, there are certain factors and relationships that lead to the overall experience those who fly have. Incorporating tragedy of the commons and warm data will not be difficult in a system as multi-faceted as this.

To begin, the issue of tragedy of the commons appears multiple times in the airline system. First, one can look at the environment and the effects of exhaust in a commons type of framework. We only have so much clean air and non-effected ozone layer, and those who deplete that are using up the commons. This would be the case in the airline industry as approximately 2% of global emissions come from planes alone. With the number of planes and routes flown growing every year, we can only expect the industry to continue to take more of the pie in terms of CO2 emissions. A focus on renewable energy and alternate fuels will help slow down the negative effects that traveling by air has on the environment.

In addition, when using the hub and spoke system, there are certainly capacity restraints that limit the ability of an airline to perform. Using Chicago as an example, O'Hare is, by some estimates, maxed out. The number of gates available and runways to use are limited and can only be expanded so much. Having two airlines (American and United) using the same hub creates issues. Each airline in using their respective gates as well as landing and take off slots are taking from the commons. In this case, the commons are somewhat renewable, but limited altogether.

Approaching the warm data aspect of my system, it is important to see all the interconnected relationships within the airline system. One such example would be oil prices. While we see gas prices shoot up in response to oil prices rising, the same happens in the airline industry but on a more delayed scale. Tickets for travel are bought in advance. The scope of how far in advance varies depending on the customer. In most cases, the tickets bought today will not be used until some point in the future. With that being said, airlines cannot fully predict what the price of operating is going to be when you fly. The cost of operating is largely dictated by the price of oil. Because of this delay in the system, customers buying plane tickets today are subsidizing trips taken by other passengers based on the current price of oil. For example, I may buy a plane ticket today when oil prices have dropped relatively. I will pay a lower price because of this. When I go to take my trip in a month and a half, oil prices may have increased. The airlines cannot come back to me and ask for more money. Instead, they are forced to pass the costs onto the consumers buying tickets at that moment in time. This type of subsidization is like many of the complex relationships related to Nora's concept of Warm Data.

Furthermore, I would like to explore the idea of customer experience when it comes to delays and cancellations. Nora touched a bit on observing the observer. When one's flight is cancelled, they are often upset. Sometimes they know the exact cause, and other times they think they know. Because flying is such a miraculously event, there are many factors that can cause a plane to get grounded. Operational, weather, mechanical, and personal reasons all give way to cancellations. Customers are informed to the general nature of their inconvenience, but often do not understand its entirety. While it would be impossible to thoroughly inform each customer every time something goes wrong, I do believe the reason for delays and cancellations is much more complex than one might believe. Understanding all the consequences and ripple effects

caused by one event can be an impossible task. Airlines work to minimize the overall effects their complex system has. I hope to dive into these relationships a bit more in my presentation.

While tragedy of the commons and warm data aspects will certainly exist in my presentation, it will prove hard to fit everything in during the five-minute time limit.