To whom it may concern:

My name is Ka Yat Li and I am blind. I have extensive experience traveling and I would like to provide feedback on traveling by air. Although my suggestions will primarily focus on this mode of transportation, some of the feedback will be beneficial to other methods of travel.

*** Airport Accessibility:

There are two methods that can be used to travel through airports of any size. Blind people can use an assistant to get them to their gate or travel independently through airports with no assistant and with or without way-finding technology.

Using an Assistant:

A common method is to use a person or multiple people, commonly airline/airport staff, to get through the airport. A major problem I have with this method is the reliability of personnel. After the traveler requests assistance, he/she has to wait for a while before someone shows up. Sometimes, help does not appear at all. When help is available, the assistant does not know how to help. I travel with a guide dog. In the past when I relied on personnel to get me to my gate, they walked extremely slow, forced me to grab onto them, and tried to interact with my guide dog when he was working by talking to him and grabbing the harness trying to steer us. These issues are common and sadly somewhat expected by some blind individuals. I feel that staff are unaware of the importance of the cane or guide dog and do not listen to blind people even though we know what we need.

If help is requested, there are two ways to travel with a blind person.

- 1. Human guide is used. A blind person lightly grasps just above the elbow of the guide and moves half a step behind.
- 2. A blind person follows the human guide by listening to their footsteps or voice. The blind person will be using a cane or guide dog.

Independent Travel with no way-finding technology:

The second method is traveling through airports independently with no assistant and without any way finding technology. This is not as common as using a human guide but a good number of blind people throughout the world use this method successfully with their cane or guide dog. This is the method I use. Blind people possess alternative techniques that allows for independent travel. The airport environment has many natural cues and landmarks. For example, the sliding of trays and the beep of machinery provides an excellent indicator that we are close to or at the security line. The chatter of people behind counters and the sound of printers let us know where the counters are. Since we know that gates are along hallways and are numbered, we can ask passersby what gate we are close to, whether they are descending or ascending when we enter the gate area, and use our hearing to count gates by listening for counters/open spaces. Travelers can use the acoustics to determine where they are. For example, bathroom hallways have a distinct acoustic. The beep of the scanners for boarding passes indicates where we need to go to board. Sometimes, we might have to ask passersby whether we are going in the right direction and directions to a place. This is in no way a comprehensive list of techniques and strategies used but it should provide a glimpse of how we are able to navigate around in any airport of any size independently with no assistant and with extremely minimal assistance from other people.

Getting around is not the problem. The issue that we experience has to do with the airport/airline staff. When we politely tell them that we do not require assistance, they still insist on getting help for us and do not respect our choice. For example, when I politely declined assistance at the check in counter and asked for directions, they still forced me to wait and requested assistance. It is frustrating and demeaning when this happens. This has happened several times. Therefore I feel that staff need to be educated as part of their training that we are capable of traveling through airports independently and that they need to respect our choice to do so.

I would like to touch on travelling independently using way-finding technology. We would still use our travel skills but in conjunction with way finding technology. Way finding technology may include electronic beacons or braille signs.

Unfortunately braille signs are not very effective for way-finding with the way they are implemented presently. Due to inconsistently placed signs, it is difficult to locate them. Unless you know ahead of time that there are braille signs and where they are exactly, it is a waste of time to hunt for them. The time spent finding signs could be used instead for getting to where we need to go. Therefore, I and many others just ask a passerby to read the nearest sign and be on our way.

With the technological advances we have, many organizations are looking at electronic way-finding technologies to help everyone. An example is Beacon technology. Beacons can transmit information using Bluetooth Low-energy and can be placed anywhere. Information from the beacon can be broadcast to a smartphone. Currently, the San Francisco airport is the only airport that has implemented this as a trial to see whether this technology can work. For more information, see:

http://mashable.com/2014/07/31/san-francisco-airport-beacons/#6cTZOQ372uqh

This technology can make it easier for blind people to get around the airport because it provides the necessary information without having to ask someone. It can also help travelers from other countries that may not be able to read English. The app on the smartphone can provide the information in their preferred language. Therefore, it is worth investigating this technology to see how it can help everyone.

Kiosks

Kiosks in many airports are not accessible at all. By making this technology accessible, blind people can independently access the same features as everyone else and will not have to go to the check-in counter. The cost of making kiosks self-voicing is minimal. According to Panasonic, the cost of building in speech to their products is "negligible."

Dog Relief Areas:

It is important that there are dog relief areas that can be accessed in the terminal. It is a hassle having to exit the terminal and have to go through security screening again. Many airports in the United States are doing this and it has made dealing with long layovers easier.

My guide dog understands that he cannot relieve himself in any indoor area. Therefore airports that have only indoor areas do not work for me. Therefore, if dog relief areas are built, they must be outdoors, preferably with a roof to avoid the rain, and should have hard/soft surfaces such as concrete and grass. Some guide dogs, including my own, have been trained from a young age to relieve on hard surfaces.

*** Aircraft Accessibility:

Seating:

It is important that airlines provide extra space for the dog, especially on long flights. Although my dog is tall and weighs over 70 pounds, he is able to slide his legs, paws, and head in the space underneath the seat ahead. This works well for short flights. However, it may be a problem for longer trips. Unfortunately, airline staff does not provide extra space for the dog on long flights even if the airline has a policy stating that accommodations may include extra space for the service animal. When they try to provide extra space, they always try to put me in a bulkhead seat which may or may not have more space. If I am put in a bulkhead seat, my dog will not be able to stretch out and slide his feet and paws underneath the seat ahead. Also, if they decide to put another passenger beside me, he/she may not have enough room to be comfortable.

In-flight Entertainment Systems:

In-flight entertainment systems provide another method of obtaining information. Since we live in an age where accessing information is critical, blind/low vision people should not be left out due to inaccessible in-flight entertainment systems.

In summary, I would recommend the following:

- 1. Have airports Develop a system that can provide reliable assistance when requested.
- 2. Basic knowledge of blindness and the different methods of travel should be included as part of their training so that they are not surprised when we ask to do things a certain way.
- 3. As part of their training, airport/airline personnel must learn to ask whether we need assistance and to respect the blind/low vision person's decision not to use assistance.
- 4. Way-finding technology should be investigated.
- 5. Airlines need to make their kiosks accessible by using universal design principals.
- 6. Dog relief areas need to be outside with an overhang and hard/soft surfaces must be made available.
- 7. As part of their Training, airline staff must understand that we are able to sit wherever we want and that we know what seats are best for our dog.
- 8. Standards based on universal accessibility principals should be developed for in-flight entertainment systems. Airlines are encouraged to work with manufacturers to have accessible in-flight entertainment systems onboard aircrafts.

I hope you will consider these issues. If you have any questions, please do not hesitate to contact me.

Sincerely,

Ka Yat Li