

# NIIT Technologies' Lalit Dhingra on Innovations in Air Travel

*As head of the Americas operations of NIIT Technologies, Lalit Dhingra has been in a frontline position to witness the changes that have been happening in several domains. In this podcast with Knowledge@Wharton, he talks about the revolution that could happen in the air travel industry.*

*An edited transcript of the interview follows.*

**Knowledge@Wharton:** We're going to speak today about emerging trends in the air travel industry. To begin with, could you tell me your sense of how the air traveler today is different from the air traveler of, say, five or 10 years ago.

**Lalit Dhingra:** Interesting question. In the past 30 years, we have had what I call travelers 1.0, 2.0 and 3.0. When we used to travel by airplane 20 years back or 30 years back, we would buy the tickets through the travel agency or directly from the airline. We used to carry this bulky ticket with us. We used to go to the airport and get our boarding passes and we used to board the plane.

Then came the next generation in which we said we now have the web coming in. So we started using websites to get our tickets. But most people were still trying to get tickets through the agencies or through the airports or the airlines. If we needed to make a change, we had to call the airlines. We were not too interested in knowing what the rules were. The airline told us the rules and how much it would cost for changing flights.

Now has come the current environment in which a traveler is more tech savvy. If you look at business travelers today, they carry a PC or the iMac, iPad and iPhones or other devices. They want to see that they have information at their fingertips — now. That's the difference between a light traveler and the heavy traveler in terms of the gadgets they carry. They want to use those gadgets effectively. They want all the data about their travel stored in all their devices. And airlines and airports and everyone around them have to cope with that.

**Knowledge@Wharton:** That's a very good segue to my next question which is how to deal with the requirements of this tech-savvy traveler. How have airlines and airports had to adapt from a technology standpoint?

**Dhingra:** I think the airlines are responding pretty well. Most of the airlines today have very good engines. On the website, you can book tickets, you can change tickets, you can allocate your seats, you can see the seat maps and make all kinds of changes before you go to the airport. Nowadays, we can get our boarding passes on our iPhones or Android devices. The only thing you don't get today is that you can't choose your meals. Now you have Internet access on the plane. You can work on the plane, doing what you want to do. So you are not missing office time when you're in the air.

Airlines have been upgrading their technology, working hard to ensure that they can personalize the service to an individual. But there's still more required to be done in their systems. Today, if I want to book a ticket and if I'm booking on my phone, I have to shift from phone to web. It doesn't automatically start from where I left. Individual travelers want to move from device to device without interrupting the flow. So that is one thing the airlines will have to play catch up on.

The airports have to also cope with this because they have to provide certain things, like free wi-fi, or information on the iPhone or iPad about the layout of the airports, where people have to go. All of these things are coming up at the airports; I think they're coping pretty well to beat the growth

in technology for a traveler. But I think there still have to be some leaps and bounds.

**Knowledge@Wharton:** Based on what you said, the fact that both airlines and airports have to invest in technology to cope with these changing needs of the tech-savvy traveler, will that mean that that air travel costs will have to go up to pay for these changes?

**Dhingra:** The perception is that the cost of air travel is going up, right? If you look at the data of the last 10 years, you will realize the cost for flying, per mile, has gone down from 2001 or 2002 onward. We have seen a drop of at least 30% to 40%, if you take the inflation-adjusted cost.

**Knowledge@Wharton:** That's remarkable.

**Dhingra:** A lot of people don't know this. They believe that costs are going up. The cost of a ticket has gone down.

**Knowledge@Wharton:** So if revenues from travel are declining, how can airports and airlines pay for these investments in technology? Will technology make them that much more productive?

**Dhingra:** If you look at the profits of airlines, they are not great. It's thin profit; some are not profitable at all. That's why you see a lot of mergers happening to take care of costs. There are other ways of cost savings in IT; they're using those models to ensure that they get ahead of the curve without paying too much. All the airlines have innovation labs and they're trying to see how they can cope with technology movements that are happening.

They are also trying to contain the costs of the regular-run jobs, both at the airport as well as at the airlines. But costs are going up and the revenues are not what they should be. Even with ancillary revenues — baggage service and the other services — profits are not high. They are better than what they were four years back, but it's still a long way to go to become highly profitable.

**Knowledge@Wharton:** Another huge trend in not just the travel industry but most industries these days is the pressure to go green and to have business practices that are environmentally friendly. Could share your perspective on what impact this has on the air travel industry?

**Dhingra:** I think going green is good. That's what I think our environment needs. And airlines are trying to ensure that they participate in this movement. Some airlines have taken the lead; they're trying to do things in a way that there's a lot of recycling. There are fuel efficiencies, much more. There is a lot of innovation in R&D happening in the engines and everything to ensure that they fly environment friendly. That's what they're aiming at.

[Look at] the move towards paperless; if you just remove the boarding passes, the amount of paper saved is huge. Right now, less than 70% of the people are not taking boarding passes. So I think there is a movement by the airlines and by the airports to become digital and consume less paper. Within the plane they are doing a lot of recycling. So that's how I think they can contribute to make our environment better.

**Knowledge@Wharton:** The impetus to go green is forcing a lot of innovation in the air travel business. What are some of the other major innovations you see today in air travel? And not just today, but also what do you see as some of the future innovations that could transform the air travel business?

**Dhingra:** I see a couple of things happening, not only for green but otherwise, to cope with the technology movements forward. One of the things we were talking about is Google Glass. How can you use Google Glass at various places?

One of the things that came up was, if there is a gate agent standing at the gate trying to read your boarding pass in order for you to board the plane, why can't he read it through the Google Glass and scan your boarding pass without even communicating with you? This would be a change

in comparison to the machines which scan our boarding pass barcodes nowadays.

Another idea that could take place at airports actually was an experiment that CNN did a few years back - holographs. Instead of the information desk you have holograms talking about where to go and your flight departure gate. This could be the future; you won't see human beings at the airports, you will only see holograms. This could revolutionize the industry.

Imagine in the next 10 years when you go to the airport, you don't have to waste too much time in lines. You cross the lines in a very quick way and there you are at the airport and the gate and the Google Glass guy actually scans you in and you're in.

**Knowledge@Wharton:** Perhaps it might also be that by then Google might have a pilotless plane just as it has a driverless car.

**Dhingra:** I don't want to be there at that time.

**Knowledge@Wharton:** Any final thoughts?

**Dhingra:** No. I think it's a very fascinating industry. A lot of innovation is going on in this industry. I am fairly involved in the IT areas in this industry so we get some good ideas, good thoughts and we sit down together with some of the experts in this industry. We believe that this is one of the industries that can become profitable over a period of time, highly profitable over a period of time. But there are still some years to go.

**Knowledge@Wharton:** Since you work so closely with the travel industry, of all the technology changes that have happened in travel what has surprised you the most?

**Dhingra:** I think the use of wi-fi. Wi-fi is the biggest change that has come. Today, if you look at the airplane, you can do whatever work you want to do. There are also ways in which pilots can use wi-fi among planes. That is another use case which is happening in the industry, how can they communicate through Internet while they're flying?

So connectivity is the biggest change which has revolutionized the whole way the travel industry has evolved.