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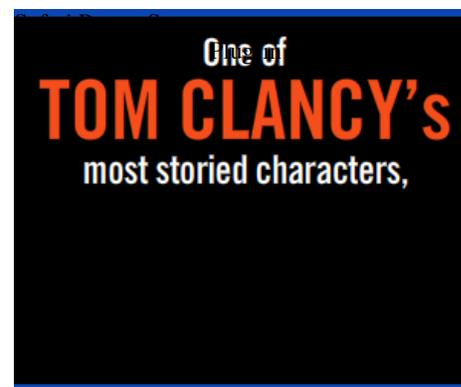
American Airlines Invites Techies to a 'Hack-a-Thon' at 36,000 Feet

By SCOTT MCCARTNEY [CONNECT](#)



Email Print 20 Comments

July 16, 2014



How does American Airlines plan to spot the next trend in travel technology? By challenging several teams of techies to pitch new products to the most discerning minds around: People in first class.

Somewhere Over Kansas

Besides eggs or oatmeal, first-class and business-class passengers on American Airlines Flight 59 got something extra Saturday morning: a vote on future aviation technology.

The airline staged a "hack-a-thon" on the trip from New York to San Francisco, putting creative techies onboard with experienced road warriors to design and evaluate new tools. Some passengers previewed an app to track the health of your dog in the cargo hold and airport signs that recognize you when you walk by and flash your gate information rather than making you read through a laundry list of flight numbers and destinations.

WSJ Radio

Scott McCartney tells WSJ This Morning's John Metaxas about new ideas to improve the flying experience

00:00 | 09:54

Twenty-two teams of developers submitted ideas in June and four finalists were picked to give demonstrations to top-level frequent fliers, turning a routine flight into a nerd bird. The six road warriors who judged the competition, all Executive Platinum and invitation-only

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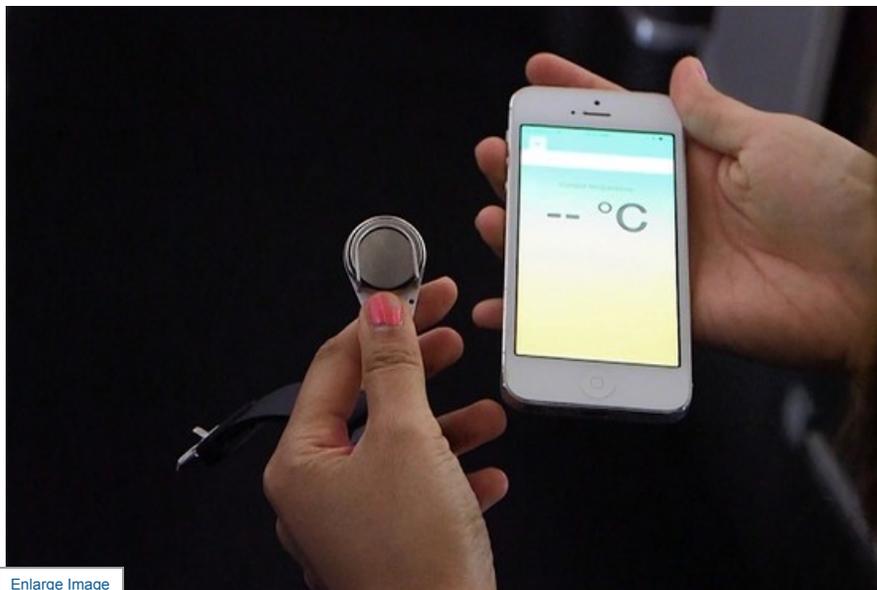


Concierge Key frequent fliers at American who happened to be booked on Flight 59, voted on their two favorites. The winner got a commitment for 90 days of development work in the San Francisco-based Wearable World Labs incubator and the chance to convince American to adopt it.

"There's a lot of innovation that needs to be done in aviation," said Aanarav Sareen, one of the judges and a president of a New York online retail startup. "Flight delays and missed connections—that process is still painful."

Technology has fundamentally changed travel, from how airlines price and sell tickets to self-service check-in and baggage tagging, mobile boarding passes on phones and instant public complaints.

But airlines are now struggling with what's next—the new apps that will delight customers, improve operations and give the first adopter an advantage over rival carriers. SITA, a technology consortium owned by airlines, and Virgin Atlantic have both been testing [Google](#) ([GOOGL -1.66%](#)) Glass—glasses with built-in computing functions that would allow gate agents to scan boarding passes just by looking at them, for example.



Enlarge Image

Karen Song demonstrates the Furry Flyer transmitter and app. *Marshall Crook/The Wall Street Journal*

[British Airways](#) ([IAG.MC +1.51%](#)) hosted a flight of entrepreneurs seeking ideas for the airline developments and tested a blanket that changes color with passenger mood. [Lufthansa](#) ([LHA.XE -0.62%](#)) announced earlier this week it will spend \$677 million on an innovations group over the next five years and establish an "innovation hub" in Berlin to be close to startup and digital technology developers there.

Airports are already installing beacons that will broadcast messages to smartphones in the vicinity, offering coupons at stores and restaurants as travelers wander by.

This hack-a-thon allowed American to spend time thinking about consumer innovations while most of its information technology work remains focused on the gargantuan task of splicing together dozens of its own crucial computer systems with US Airways.

To run the hack-a-thon Phillip Easter, American's director of mobile apps, teamed with Wearable World Inc., a San Francisco company pushing wearable technology innovation, a ripe area for airlines. Examples include noise-canceling Avegant headphones with a flip-down Augmented Reality video screen that passengers could rent for entertainment.

5

Australia Repeals Carbon Tax



VIDEO

1

MH17: When It Lost Contact and Crashed



2

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3

MH17: Surface-to-Air System Needed to Shoot Down Jets



4

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5

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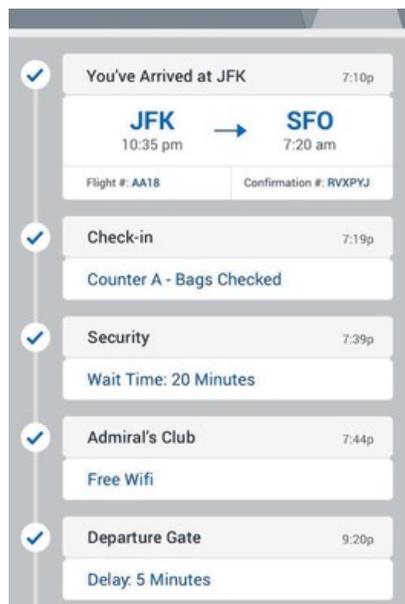
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AT&T covers more than 99% of all Americans.



The four finalists relied on smartphones, as well as Pebble smartwatches. On board, Karen Song, co-founder of a fashion tech startup, had a fellow passenger walk up and down the aisle of the [Airbus](#) A321 to help demonstrate her new idea: Furry Flyers. The passenger held a quarter-sized transmitter that could be attached to a dog collar.

Furry Flyers could show if a dog escaped its kennel in the cargo hold, so baggage handlers could be alerted and avoid opening the door and letting the animal run out of the plane. It could also monitor a pet's temperature. Version two would have streaming video and could monitor a pet's heart rate and hydration level.



An example of how the UsTwo app charts an air traveler's progress. *UsTwo*

The nagging question was whether the information would calm pet owners or make them more anxious. Not much can be done if a dog is upset, since there's no access to the cargo hold from the cabin.

"It definitely gives the owner a sense of control," Ms. Song said. "But we probably wouldn't allow it to over-alert the customer."

The judge's evaluation? "She's got more work to do," said Christopher Cagnazzi, a Concierge Key frequent flier.

InFlight Social, an app proposed by developer Peter Ma, would check social-media connections for passengers on flights. If the passenger opted in, the app would identify friends of friends from [Facebook](#) (FB -1.85%) or overlapping connections on LinkedIn.

"It happens a lot, especially when going to a conference," Mr. Ma said.

Other airlines have experimented with in-flight social media. He'd make his money by offering impulse purchases through airport gift shops, so one traveler could surprise another by having someone meet the flight with flowers or a gift.

David Mathews, developer of Proximity Signage, would have American's smartphone app connect with airport signs and display customized information: Bob, your flight to San Diego is at gate 12. Knowing that Bob's favorite is Peet's Coffee, Proximity would also tell Bob there's a Peet's by gate 14.

"I walk up to the sign and it knows me," said Mr. Mathews, a developer who helped bring the [television relay system Slingbox](#) to market. His company, NewAer, has backing from [Intel](#) (INTC -2.74%) and [Deutsche Telekom](#) (DTE.XE -0.74%).

But he wasn't the winner. That honor went to 27-year-old Toph Brown, a project manager for UsTwo Studio Ltd., a 10-year-old London company best known for games such as the adventure puzzle Monument Valley. He started the competition with some "market research"—he and three teammates asked people on the streets of San Francisco what might most improve their travels.

"People said they feel like cattle and when they are away from home, they want to be connected," Mr. Brown said. So UsTwo came up with technology that would let a traveler designate one person to follow the traveler through each step of the trip, as one might with a [FedEx](#) (FDX -1.61%) package.

When the traveler's smartphone passes beacons installed at airports, UsTwo lets the spouse, friend, colleague or administrative assistant know. When the traveler gets through TSA security screening, for example, the follower gets a notice and the app shows the traveler which gate to go to. At the gate, the app can pop up a boarding pass bar code.

The follower can also access menus of food for purchase on that flight and purchase a drink or a sandwich as a gift to the traveler. Then again, a spouse might find the traveler just ordered a giant cookie. "We're working a privacy setting into the menu," said Mr. Brown.

Judges asked if it was too invasive. Mr. Brown said UsTwo made a choice to only allow one person to track and use simple checkpoints such as airport arrival and boarding.

"You can build an experience layered on top that's going to be creepy or that's going to be sweet and authentic. We want to be authentic," Mr. Brown said. "The goal of our app is to string a light tether between two people when they travel."

Rick Elieson, American's vice president of global partner marketing, saw potential for the airline in letting parents track unaccompanied minors or families track elderly parents flying alone. He always texts his wife and sometimes his administrative assistant when he lands; UsTwo would do that automatically.

Mr. Easter said the technology could also help the airline. "If I know you got through TSA, I'll hang on to your seat. If you're not through yet, I know there's no way you'll make the flight," Mr. Easter said.

American says it plans to work with UsTwo to develop the app further and thinks all four finalists have potential. "It's a question of how quickly and how broadly we can do this," Mr. Elieson said.

But Mr. Cagnazzi, the Concierge Key frequent flier, had his own app idea he'd like airlines to adopt: Filling overhead bins efficiently so flights don't get delayed. Like a parking garage, "there should be electronics in the bins so they know when the bin is full. Put it on that display at the front door for flight attendants," he said. "They could even say to someone, over row 12 there's one spot left."

Write to Scott McCartney at middleseat@wsj.com

Corrections & Amplifications

Smartwatches made by Pebble were involved in the hack-a-thon flight. An earlier version of this article incorrectly referred to the company as Peeble. (July 17, 2014)

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Newest



Geraldo Bustone

You shouldn't be checking on your dog in the cargo hold because you should never, ever have your dog fly in the cargo hold..unless you want your dog to either roast or freeze on the tarmac when there is a delay and the temp is not controlled as well as it should be. Or...you want your dog to be endless teased and tormented by the cretins in the baggage room (the one below where luggage waits until it is taken out to the planes).

If you must bring your pet....DRIVE.

10 hours ago



Curtis Beck

Oh, GAWD! I just need a comfortable seat with elbow and knee room, a token snack, and a free beer. Way less expensive for the airlines to provide than all these bells and whistles...

12 hours ago



Robert B Miller

All very interesting, but will people paying their own fare (non-business travelers) be willing to pay for such amenities. (Somebody's paying somebody.) Or will they save \$40 but have a six hour layover.

Cost is still king to leisure traveler.

12 hours ago



Glenn Joyce

Most of the aircraft designs in operation today pre-date \$4/gallon jet fuel. We're at the cusp of being able to capitalize on more efficient aircraft (B787, A320neo, B737 MAX, B777 X)

In order to operate something that consumes quantities of fuel measured in tons, airlines either need to 1) put more paying passengers in the same space or 2) get passengers to pay more for the seat they're flying in.

The coach compartment uses strategy "1" and the business and first class compartments use strategy "2".

What I find interesting and I believe what Scott is trying to bring to light is that airlines realize that mobile technology is where it's at and they are turning to what they view as an influential group of their travelers to bring capabilities to market that are novel as well as desired. Mobile places the potential for a vast amount of information to be in the consumer's hand. The trick is to bring the information that most people want in a form that they want it in.

15 hours ago



Josh Uhlman

I would like more thought put into the onboarding of passengers. Wouldn't it make sense to board from the rear of the plane, starting with window seats, progressing to middle, then the aisle?

I know that premium paying customers pay more to board sooner, so maybe allow business and first class to board first. The industry is all about saving money, but as long as a jet is sitting at the gate, it's not generating revenue.

16 hours ago



Luke Rouse

[@Josh Uhlman](#) The issue that would arise from onboarding more sensibly, as you suggested, has to do with the overhead bins. Many flights these days announce that, "there won't be enough space, so please check your carry-on if you can." This causes people to panic and assume there won't be enough room directly above their seat, so people put their bag in one of the first open spots they see (which would be towards the front if people in the back are being loaded first). By the time the people towards the front board, the only open overhead spots would be towards the back. Just imagine the nightmare during offboarding (is that a word?) when everyone at the front is trying to get to the back to get their bags...

15 hours ago



Mike German

[@Luke Rouse](#) [@Josh Uhlman](#) The problem you highlight is one caused by the attendants' own dishonesty, purportedly in the interests of faster boarding. WRONG! Intelligent boarding practices, such as those used by SW and those airlines that board from the rear windows first, go a long way towards speeding up the process. Some well-placed urgings to dawdling passengers to "step lively" would also be well-taken, as would better policing of the carry-on size limits. In short, intelligent, proactive crowd control, combined with courtesy, would go a long way.

13 hours ago



Ned Levi

[@Luke Rouse](#) [@Josh Uhlman](#) You're exactly right, and that's why several experiments of boarding from the rear (First and Business Class still first) toward the front for economy have failed in the past.

13 hours ago



Josh Uhlman

[@Luke Rouse](#) That could easily be remedied by changing the overhead bin size, and/or strictly limiting/adhering to the mandatory max size for overhead bins. People would know exactly how much space they would have available (much like they know how large their seat is going to be).

When someone purchases an airline ticket, they are also purchasing overhead and underseat storage. There **shouldn't** be any need to worry about carry on baggage availability.

I know, I know... in an ideal world...

15 hours ago



Gary Butler

[@Josh Uhlman](#) You make a great point, each overhead would have the corresponding seat number displayed. Your way would mean when you arrived at your seat you would have your overhead open for your carry on rather than filled with someone else's who may be seated 12 rows behind you.

14 hours ago



Ned Levi

[@Josh Uhlman](#) I don't think so Josh. Even if the airlines enforced their existing limits, and the bin size was larger, I don't think it would make much of a difference to board back to front.

I do think that enforcing size and weight (You can't bring in a bag you can't lift into the bin yourself unless you're a senior and then it still better not be too heavy.) limitations will go a long way to boarding far more quickly.

I wrote an article recently about carry-on at Consumer Traveler (<http://consumertraveler.com/columns/getting-there/new-carry-on-size-limits-causing-problems-for-some-air-travelers-this-summer/>) and

among others heard back from a pilot who told me how frustrating it is for the flight crew who are trying to leave on time, when it's nothing more than oversized and overweight bags causing the bins to be loaded so slowly with constant rearranging needed holding them back.

The airlines need to enforce their carry-on rules and boarding will get much faster and easier.

12 hours ago



Russ Kiekhaefer

If the airlines are willing to spend money on improving our experience, they could try giving us back a little of the space they have taken away.

19 hours ago



Mr. Mister

How about restoring a little bit of dignity and compassion for flying passengers. Requires no development, can benefit passengers with or without smartphones and does not cost a dime!

Don't know if you heard about a recent Frontier cross-country flight where they were running low on fuel and had to land somewhere in the middle. The pilot apologized and then ordered pizza for all the passengers as it was dinner time and they were delayed by couple of hours. In this case, it cost them \$300, but it was probably the best \$300 Frontier spent.

19 hours ago



Douglas Levene

Restoring the extra inches of legroom in coach that those seats used to have would go a long way to making American Airlines tolerable.

20 hours ago



jeff wagner

An astonishing lack of innovation

21 hours ago



Mary Alexander

If they just had decent coffee on planes, and more comfortable seats, then who cares what someone's dog or best friend's ex-boyfriend is doing on the plane? Waste of money, just add a few more inches of legroom.

1 day ago



Jeffrey Krause

The hassles with air travel are TSA (which has improved tremendously with Pre but why did it take so long), carry on space and crammed seats. How is an App going to give me more comfort when airlines are trying to shoehorn more seats into the cabin.

1 day ago



Ned Levi

I didn't read of a single innovation that's not already available which would really be helpful.

For example, via Triplt, I constantly get updates on my flights about gate changes, flight delays etc., even when flying, as long as the plane has WIFI.

What the airlines really need is an RFID tag for every checked bag in every plane which won't fall off the bag and will stand up to the abuse of baggage handlers, with airline software tracking the bags and telling the airline if it fell off the belt, is sitting on the tarmac with the flight ready to leave, on the wrong flight, etc., so maybe the bag will arrive with the passenger, and a smartphone app so each passenger can scan the tags in the phone and follow the bag's progress too.

As to Mr. Cagnazzi's carry-on idea, better the airlines should stop allowing those hugely oversized duffles and other carry-ons on the plane, which don't come close to meeting their size regulations, and the overhead bins will magically have adequate room.

1 day ago



Sy Corenson

[@Ned Levi](#) There will be more RFID tags in the future -- placed on the passengers to herd them properly to their seats prior to the flight, to the bathroom during their flight, and off the plane to luggage retrieval after their flight.

1 day ago



Ned Levi

[@Sy Corenson](#) [@Ned Levi](#) I love it, RFID tags on passengers!

12 hours ago

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