

DIGITAL TRENDS IN AIRLINES

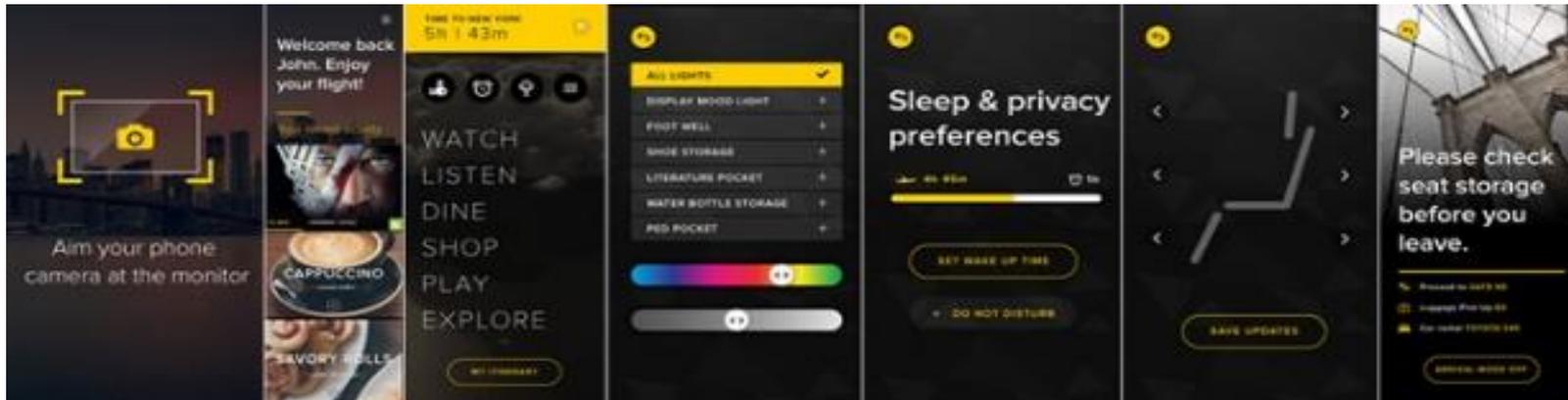
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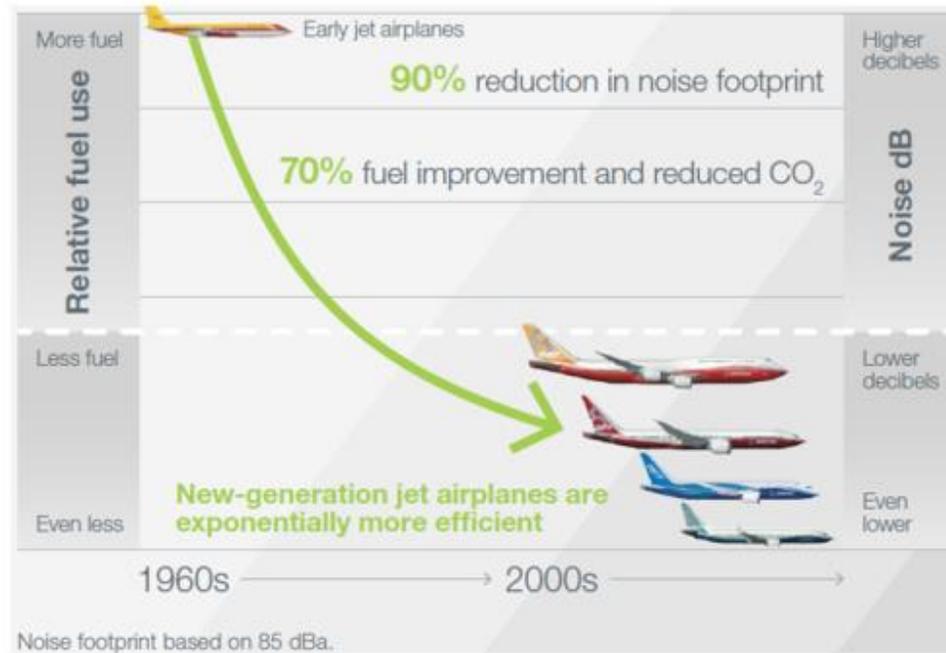
Panasonic's New Waterfront concept seat:



- Unveiled last month's Consumer Electronics Show in Las Vegas – demonstrates 'the art of possible' when the personal devices gets integrated with the aircraft seat.
- The Waterfront seat is the result of a partnership between Panasonic, B/E Aerospace, Formation Design Group and TEAGUE.
- **The objective** "take care of a passenger's wellbeing in a more holistic way." Using B/E Aerospace's Super Diamond seat as platform, the Waterfront seat features a full privacy door, which "gives a First-Class feel within the confines of a Business Class footprint,".
- **Other features**
 - Customizable LED lighting
 - Climate controls that adjust the temperature in the suite.
 - Passengers can recharge their devices using one of the AC and USB ports or just place it on a wireless inductive charging panel.
- **Video**

New Generation Planes

Improved efficiency of new generation jet airplanes



Market Realist

Source: Boeing

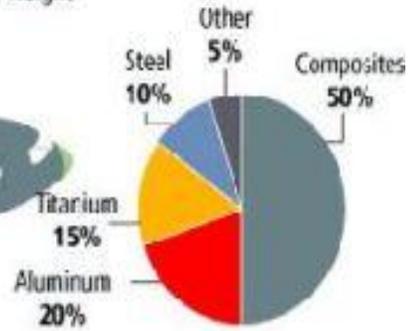
- Hardware centric to software centric.
- Airlines have been able to reduce costs and improve operations by using advanced aircraft engine technology, IT solutions, and mobile technology.
- The cabin's bionic structure will be coated with a biopolymer membrane, This smarter structure will make the aircraft lighter and more fuel-efficient while giving passengers 360 degree views of the skies.
- [Video](#)
- 'Composite' materials will be used - new matter made of a combination of different materials, There will be a shift away from archaic fibreglass composites to more advanced carbon laminate and carbon sandwich composites in the aircraft.

Materials used in 787 body



Total materials used

By weight



By comparison, the 777 uses 12 percent composites and 50 percent aluminum.

- Boeing's 787 Dreamliner will be the first commercial aircraft in which major structural elements are made of composite materials rather than aluminium alloys.

Robotics and artificial intelligence



- Customer-facing robots in airport terminals are not a new trend.
- Back in 2013 Geneva Airport launched its first trial of a customer service robot
- Auckland Airport introduced robots for jobs such as luggage transportation and cleaning.
- in late 2015 KLM launched what it hopes will be a game-changer in this space by starting operational trials of the **Spencer** robot at Amsterdam Airport Schiphol
- Cognitive systems and Robotics.
- [VIDEO](#)

Smarter Self service and Baggage solutions



**BIOMETRIC SELF-CHECKIN
BAGGAGE DROP**



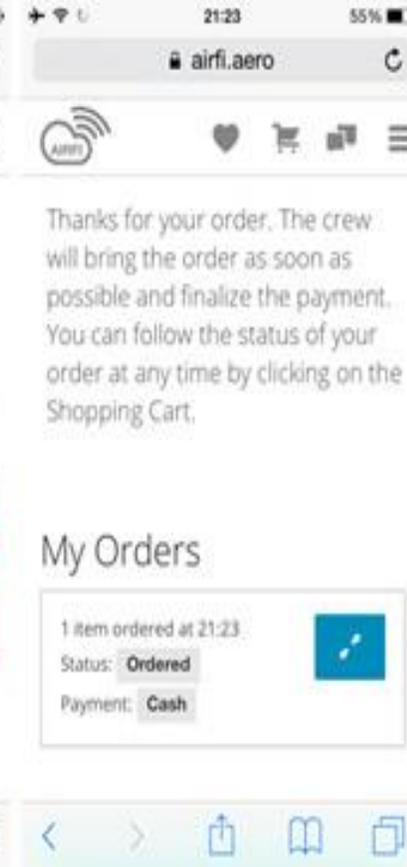
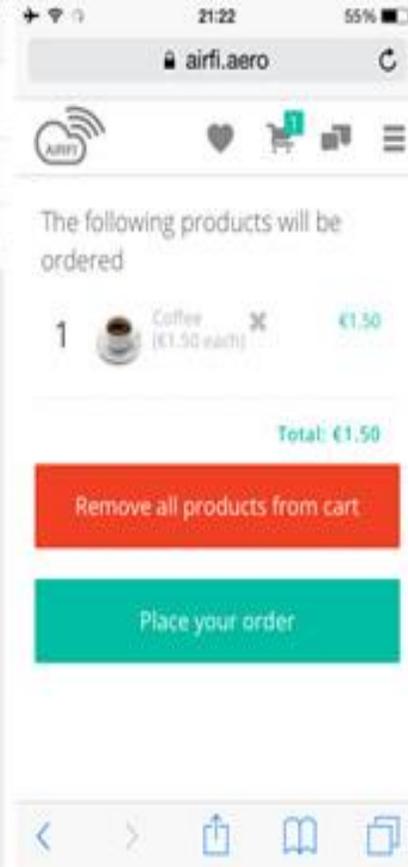
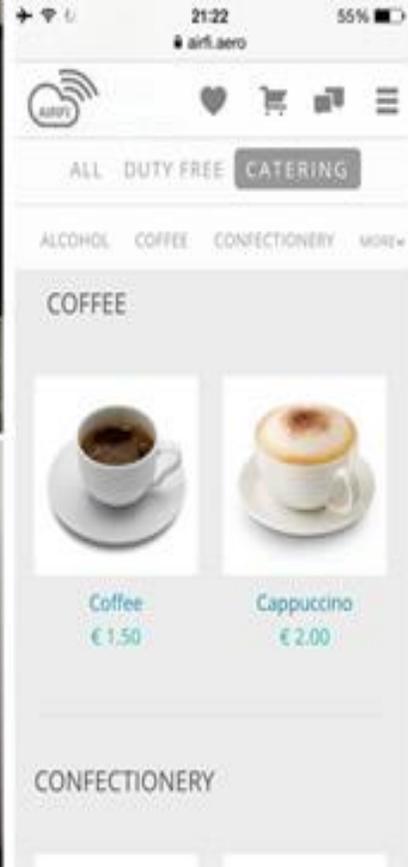
- Self-service check-in and bag drop facilities are now commonplace in airports around the world
- Biometrics technology looks set to play a crucial role.
- Biometrics technology looks set to play a crucial role in adding a further layer of security and creating a more seamless experience for the passenger.
- Airports, Airlines and vendors now identifying the benefits of biometric-enabled self-service solutions
- RIMOWA Electronic Tag by RIMOWA and Lufthansa
- Tracking device for frequent flyers by KLM
- [VIDEO1](#)
- [VIDEO2](#)

Aruba Happy Flow



- ▶ Happy flow -----facial recognition technology.
- ▶ Example: travelling to Netherland, show the passport once at self service kiosk.
- ▶ Instead of having to present their documents.
- ▶ Time saving: each process is completed in a matter of seconds.
- ▶ [Video](#)

AIR-FI BOX



- ▶ AirFi box – a portable, battery-powered and self-scaling wireless local network.
- ▶ Arke is the first airline in the world to let passengers order foods, beverages, duty free items via their devices.
- ▶ Example: Passengers can access an online shop on the devices.
- ▶ Cabin crew & Passengers.

Boeing's Next Generation Mood Lights



Animated projections



- ▶ Boeing made mood lighting - how cabin lighting is further evolving beyond mood lighting to include project technology and high-definition animations that bring the cabin to life.
- ▶ With mood lighting now being a standard feature on new aircraft deliveries, several airlines have also started to retrofit LED lighting into their older cabins.
- ▶ A step further - Iceland air and Finnair, have developed custom Northern Lights scenes that pulls in shades of blue and green that **dance through the cabin**.
- ▶ [video](#)



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In-flight entertainment (IFE)



VIRTUAL REALITY EXPERIENCE FOR TRAVELLERS

- ▶ Australia's Qantas with Samsung - for **elite passengers** to have an experience Virtual Reality using the Gear-VR headset.
- ▶ Users are able to watch movies and experience virtual travel in 360 degrees.
- ▶ A fantastic tool to feature their network's destinations, inspire travel and promote tourism.
- ▶ [Video](#)



Meet and SEAT

- Onboard entertainment by connecting with the person next to you.
- Happens if you knew a bit about the stranger sitting next to you.
- KLM is using social media – Facebook, Google+, and LinkedIn (for privacy, you have to authorize).
- Once you get to know someone on the flight, you can pull up a seat map and sit with each other – perhaps potential business partner or someone who made you laugh on Facebook.
- [video](#)

END