

## Discovery Channel: Interface Design Breaks Free From the Seatback Screen

24 August, 2017 in [Entertainment](#) Written by [Caroline Ku](#)

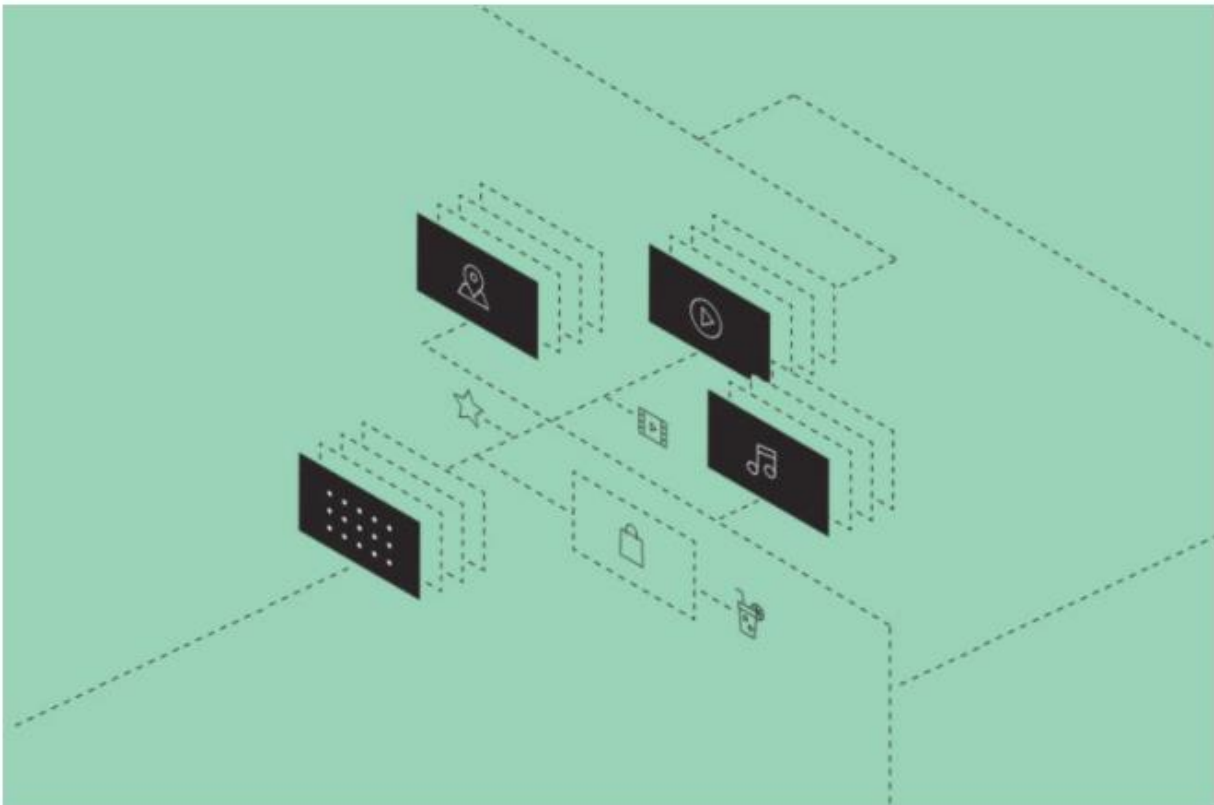


Image: Nicolás Venturelli

**APEX Insight: Connectivity is enabling IFE interfaces to evolve more frequently, giving passengers new content to explore and a refreshed experience every time they fly.**

Reaktor has been experimenting with Finnair's in-flight entertainment and connectivity (IFEC) platforms since 2013, designing a system optimized to evolve over time. "Our goal was to open up the ecosystem, a path, which would allow Finnair more freedom in creating better services for its customers over the long term," wrote Aapo Kojo, senior consultant at Reaktor, on the company's blog in 2015. That was the year the airline launched its Nordic Sky IFEC platforms and introduced Wi-Fi on its first Airbus A350 XWB aircraft.

Like many other IFE systems, the Nordic Sky entertainment portal features movies, music, route maps, airplane camera views and a snacks and drinks menu. The airline's Wi-Fi portal, which won an APEX Award for Best In-Flight Connectivity Innovation last year, enables passengers to browse the Internet, preorder duty-free goods, shop and book tours or ground transportation. But these features aren't the breakthrough innovation that Kojo describes in his blog post; it was running the node.js platform on the in-flight server that gave Finnair end-to-end control of its IFE services – that was the "big moment in aviation."

"To build very good user experiences, one should treat IFE systems as a digital service that undergoes constant evolution, the way modern applications, web services and other software work," says Konsta Hansson, general manager, Reaktor. "Most IFE systems flying today have been developed as one-off entertainment boxes that never change. They quickly become obsolete when compared to the rest of the world and how software develops."

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Squarish seatback screens with graphical user interfaces that comply with ancient aspect ratios, and have visible pixels and touch screens that respond seconds later, still exist on older aircraft. Dominique Giannoni, CEO of Thales Inflyt Experience, recalls encountering one: "It was like it was frozen in the '90s." These IFE interfaces are updated every five years, he says, maybe longer – eons for passengers who are used to receiving app or operating system updates on their own devices every week. "Until now, the in-seat system has been very static – very different from daily life where everything is [always] moving," Giannoni says. "We need to have infrastructure that enables quick-change technology."

### **Navigating the IFE**

At first sight, a new IFE interface can spur excitement and a sense of discovery in a passenger, but these optimistic feelings can quickly dissolve into confusion when key information is buried deep in the navigation menu, and further into disappointment when the user experience (UX) falls flat. "Depending on the interface, you might make five or 10 steps more before you finally get to the movie," Giannoni says. "During this time, psychologically, your frustration is building because you know you have a fixed time on the aircraft."

The flashy carousels and animations of popcorn popping that play before a movie aren't helping either. They only delay users from the instant gratification they've come to expect. "These are visual effects," Michael Holler, senior consultant, Reaktor, says. "They give no information to the user and they take up time."

For this reason, Finnair's Nordic Sky is built with a low navigational hierarchy. The estimated time of arrival and the status of the journey are displayed on the home screen without requiring any action from the passenger. "We made the conscious decision that the first screen tells people about the status of their flight, where they are, what's happening, information that's relevant to them, so they can plan their stay on the aircraft," Hansson says. The next screen presents passengers with the entertainment menu, so they can decide whether to launch into a two-hour film or catch a 20-minute episode before their meal arrives.

## “They have such amazing content, but often it can be hidden or missed.” — Derek Ellis, Massive Interactive

Better navigation and UX is also a payoff for airlines, some of which spend an estimated \$20 million per year on content. “They have such amazing content, but often it can be hidden or missed,” says Derek Ellis, co-founder and chief creative officer at Massive, a studio specializing in digital video platforms, that has worked with Qantas and IAG group low-cost carrier Level. “Our job as user interface designers is to put that content in front of the user.” His company recently redesigned a 10-year-old IFE system, using its current catalog. Emphasis was placed on presentation and discovery strategies, and the results were remarkable: Net Promoter Scores soared, passengers thought there was much more content and they were able to find what they wanted faster – “All because we changed how the content is presented and grouped,” Ellis says.

### Multiple Users, One IFE System

One of the challenges of designing an IFE interface is the broad user base, which can be as diverse as the world’s population. Many airlines have attempted to overcome this by addressing language barriers, taking a step toward personalization with multilingual interfaces. But Ellis says there should also be consistent behaviors that enable passengers to quickly learn a system, regardless of their language, abilities or technical competence. Massive Interactive, which also works with BBC, Deutsche Telekom, Foxtel and Lionsgate, is already seeing these elements in consumer video entertainment services. This is where Ellis sees connectivity coming into play. For instance, on long-haul flights, a session-based strategy in the IFE system could track what a passenger watches or “favorites,” and make recommendations, provide a list of recently viewed items, group and bring certain functions to the forefront, culminating in the feeling of personalized technology.

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Hansson agrees that the next wave of improvements to IFE systems will come in the form of connected solutions. Reaktor is exploring opportunities in syncing passengers’ mobile devices with the seatback system, similar to what Singapore Airlines has achieved with its companion app, and also how the IFE platform can be extended beyond the cabin. “We’ve also been playing with moods,” Holler says, explaining that they’re experimenting with how UX could react to the type of content passengers are in the mood for. “Am I just passing time? Do I want to be entertained, work or just watch something before I fall asleep?”

Combined with data analytics, chatbots and artificial intelligence, personalized technology could help establish one-on-one relationships with passengers through the IFE system, especially as buy-on-board and duty-free shopping services are integrated with the IFE system and passengers interact more with an airline through the seatback screen or their own devices than through face time with flight crew.

“Good UX design can provide a system that positively contributes to the airline’s brand experience, customer loyalty and overall passenger enjoyment of each flight,” Ellis says. “A well-crafted UX strategy and UI enable passengers to find and play content easily and support an airline’s overall customer experience strategy by providing a positive branded experience. This assists in building brand affinity and return customers.”

*“Discovery Channel” was originally published in the 7.4 September/October issue of APEX Experience magazine.*