Multiplayer entertainment for passengers on short-haul flights

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As technology advances and traditional ways of entertainment now can be found in the palm of one's hand, the consumer expectations are higher than ever. This has created a greater demand by airline passengers for varied entertainment options on their flights. To keep up with the current demands, the development process aims to create an enticing multiplayer experience for passengers on short-haul flights that they can enjoy at their own leisure.

As a Master's Thesis at the department of Design Sciences at Lund University, we decided to look into this together with Malmö based company Tactel AB. To kick off the project, a market and user study was conducted to gain insights of the opportunities in multiplayer entertainment on shorter flights. This data was then used to create benchmarks and create the requirements for the prototypes.

To meet these requirements, a platform containing two concept games was designed. The two games hoped to reach out to a wider audience than a single game could. The first concept was a quiz game for more mature audiences called *Where to Next?* where the user tries to guess a destination based on a number of clues. The second was an infinity runner arcade game called *Baggage Run* where the player has to jump over bags to get to their flight in time. The goal of this game was to cater to younger audiences and more casual players.

Initially the overhead screens were thought to be a great opportunity to deliver entertainment, but the survey data surprisingly indicated otherwise. An alarmingly low percentage of passengers had noticed the overhead screens on their latest flight. Therefore it was decided to have the passengers' own mobile devices as the main focus, and only deliver additional and supporting content such as leaderboards on the overhead screens.

With the help of the data from the research, a design and development process was initiated. The project used two methodologies in the design process, these were *Design Thinking* and *Design Sprints*. The design sprint framework is great for solving design problems and getting started with the design iteration quickly, which in our case led to rapid creation and testing of prototypes. Sprints were used to create the games, platform and any other features found in the project.

The final prototypes consisted of a platform with several systems, two games and mock-ups for the overhead screen. All prototypes were scaled to work with phones and in some cases tablets. The time sink required to play the games or use the platform has been kept to a minimum, to ensure that users have the time to play during a shorter flight.

For interested readers, a simplified version of the infinity runner arcade game *Baggage Run* can be played and tested on your own mobile device. Browse to **www.airplanegame.fun** in your web browser of choice and try it for free. All functionality is not implemented in this version however. Enjoy!

