

angel^{Trains}

investors in rail



Is There a need for Passenger Entertainment on Trains?

Paul Soor 01 December 2004

Rail Interiors Expo 04

What this paper will cover

- About me and Angel Trains
- The need
- Market opportunities
- Content is King!
- Technology
- Alternatives (WiFi?)
- Conclusions

About me and Angel Trains

Paul Soor

- **14 Years** Rail experience
- Chartered Engineer
- Passion for delivering **passenger benefits**

Angel Trains

- **Worlds largest** private owner of trains
- Formed in 1994 at the time of UK rail privatisation
- Leasing **4000** rail vehicles to 20 of the UK's 25 train operating companies
- Owning more than **40%** of the UK's rolling stock
- Employing 187 staff with an ethos of **employing best in class**

Do people want entertainment on trains?

DB ICE

Brisbane-Cairns
Tilt Train
services

JR 182

Virgin at Seat
Audio

Why there is a need for entertainment

- Train journeys whist pleasant are boring
- People have always made their own entertainment:
working / walkmans / reading / sleeping etc
- Train Operators believe in entertainment for passengers:
hire a DVD player / @ seat audio / broadcast systems

Do people love trains? Do people love being entertained?

Market opportunities

Revenue: pay to view / advertising / sponsorship / transactional / Others

Increase the **value** of the train for the passengers

- **UK**
Over 260 high speed train sets (>2000 cars) – over 75 million intercity passenger journeys per year
- **Europe**
Over 1000 high speed train sets – 000's million intercity passenger journeys per year
- **Rest of the world:**

Content is King!

- Give people what they can't get as **individuals on their own mobile devices** in better quality

Latest Soaps

Latest news /
weather / sport
headlines

Films not on
public release

Discovery
Channel

Up to date sport

Comedy

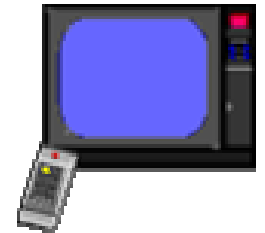
...and much more

...And content must be

- ...highly enjoyable and relevant to the person in the seat at any time of the day
- ...delivered with excellent picture, sound and ergonomics so that people can concentrate on enjoying the content
- ...so good that people can enjoy the train journey without having to plan for the boredom and can travel light

Why interactive?

- People are individuals
- People want control
- Two way communication New Opportunity to engage rail consumers
- Revenue generation



Technology – the whole entertainment system

Land		Land - Train		Train	
<i>Purpose</i>	<i>Challenges</i>	<i>Purpose</i>	<i>Challenges</i>	<i>Purposes</i>	<i>Challenge</i>
<ul style="list-style-type: none"> Deal with many content formats Digital rights management Package the content to train format System monitoring 	<ul style="list-style-type: none"> Future proofing Real time monitoring Building content Timings Infrastructure Rail safety approval Railway people and process 	<ul style="list-style-type: none"> Must be wireless Connect land to train for data up/download Maintenance and support Passenger payments 	<ul style="list-style-type: none"> Maintaining link Suitability of link for data type Reliability Rail safety approval Railway people and process 	<ul style="list-style-type: none"> Deliver content to passengers Provide interactivity 	<ul style="list-style-type: none"> Hostile / harsh environment Rail safety approvals Power supply Removing heat Maintainability Reliability Uncontrolled ambient noise and light Railway people and process

What are the alternatives?

Alternatives	Comments
WiFi internet access on a moving train	<ul style="list-style-type: none"> • Great idea • Relatively cheap • Subject to bandwidth and reliability, can provide web content • Will only entertain as much as the web can, therefore... • No late or current entertainment content because of rights restriction (programme / film makers) • Currently cannot stream high quality audio/video to 100+ people at the same time with on-demand interactivity • Consumer invests and provides their own equipment
Personal connectivity (laptop 3G card, Blackberry etc)	<ul style="list-style-type: none"> • Works in most places (not just trains!) – flexible – security issues controlled by user • Works on trains as well as mobiles (except trains with heat reflective windows) • Relatively cheap for data up/downloads (speed for speed)
Installed interactive entertainment with on train WiFi	<ul style="list-style-type: none"> • Extends at seat system to people with WiFi laptops anywhere on the train • Limited content can be shared with laptops (bandwidth limited) • Limited interactivity (bandwidth limited)
Personally owned devices (Walkmans and DVD players)	<ul style="list-style-type: none"> • Consumer has chooses content and keeps it • Consumers own investment in hardware and software • Software limited to what has been released • Nothing real time apart from radio (strong signal required)
Hire a DVD player	<ul style="list-style-type: none"> • Great time “shrinker” • No consumer investment and can travel light • Software limited to what has been released • Nothing real time (sport, news, travel etc)

Conclusions

- **Content** is king! Must be highly enjoyable and relevant
- **Technology only serves one purpose** – deliver the content – but railway technical challenges are significant
- **WiFi** is cheaper and easier to install than an entertainment system but business possibilities are limited
- **Prove it**
- **Focus** on the **passenger**
- Present multiple opportunities for passengers to **ENJOY JOURNEYS**