Mumbai Suburban Railway

Spread over 465 KM

More than 2000 train services daily

Carries over 7 million commuters daily

4 parallel, open, on ground tracks. A train every minute

Fatalities recorded in a 10 year period (2002-2012) : Over 36,000

2008 average: 17 fatalities on every weekday
A compulsion
Walls are broken

FOBs are not used by a majority

Fencing is breached
Constraints
(Scalable. Feasible. Sustainable)

Cost - Affordability + Vandalism (40 c)
Implementability - Down times, complexity
Language / Literacy
No overt sanction or acknowledgement
Overconfidence / Private Optimism
Ineffective signage

NEW YORK

UK

SA

MUMBAI
Knowing Vs Feeling

DANGER
Moment of Fear
Repetition
Actual Photograph
Redesigned Signage System
Human Brain Underestimates the Speed of Large Objects

Leading to a behavior where trespassing occurs even as the train is approaching fast

source. Study by Prof HW Leibowitz
Tell them that the train is faster than they think?

source. Study by Prof HW Leibowitz
Create a non-conscious speed reference
Staccato horn
Before Behaviour Architecture Approach

After Behaviour Architecture Approach

17
23
9
1

NUMBER OF DEATHS

JAN-JUNE '09 JULY-DEC '09 JAN-JUNE '10 JULY-DEC '10
Reduction in fatalities in other locations
Observations become powerful & useful if we can layer it with brain/behavioral science

Interventions that work at the non-conscious level work best to change habits and overcome bias

Respect constraints, however ridiculous they are

High science-High Impact - Not necessarily high cost