Wireless Applications at Large

S. Muthu Muthukrishnan

Rutgers Univ
Finding out more about me…

Type in

Adorisms

in
Google/Teoma/a9.
Background

- R.Jana, T. Johnson and I built an operational location-based service on AWS infrastructure for voice and data n/w, over the entire country, in 2000.

- I gave a talk on Services Architectures for Emerging Wireless Networks at the Frontiers of Engineering, Natl Academy of Engineering.

  Sept 13, 2001

  March 2002.
Context

• New services infrastructure is being built by the telecommunications industry. Happens once in a few decades.

• Unique in scope and scale. When deployed, it will be a great engineering achievement.

• What are the design issues, challenges, opportunities? Beyond engineering: science, art, media and society.
Who is the user?
Tune Downloads

01:03:01 | Dancing Queen
01:04:00 | If I Only Had a Brain (From Wizard of Oz)
01:04:02 | Follow Me
01:04:29 | Schism
01:04:32 | Freaks Come Out at Night
01:04:41 | Someone To Watch Over Me
01:05:07 | Pink Panther Theme
01:05:37 | Fields of Gold
01:05:49 | Sportscenter Theme
01:06:10 | Zip-A-Dee-Doo-Dah
01:06:15 | Crawling
01:06:16 | Muppet Show (Theme)
01:06:46 | America the Beautiful
01:06:53 | Notre Dame Victory March
01:07:03 | Faith
01:07:16 | The Good, the Bad, and the Ugly

Star Spangled Banner
America the Beautiful
Pink Panther Theme
Inspector Gadget
Schism
If I Only Had a Brain (From Wizard of Oz)
Follow Me
Crawling
Funky Town
In Too Deep
Beat It

What are hot, popular?
Basic Services

..(that) any general system of conveying passengers would ... go at a velocity exceeding ten miles an hour, or thereabouts, is extremely improbable.

- Railway engineer Thomas Tredgold, 1835

• Enhanced Messaging
• Location Aware Services
Wireless Services and Art

How will Art use this new medium?

• Cell phone symphony

• Wireless Graffiti
Wireless Services & Public Interest

• What geo-local content will be “free”?
• Public safety, crisis and emergency management, development of services for physically challenged, etc. needs to be championed and implemented.
Wireless Service & Science

- Large number of mobile users with variety of handsets equipped with high quality wireless connectivity => unique ability to gather vast quantities of data?

*in loco* monitoring
Wrap: On being the Engineer

He cannot bury his mistakes in the grave like the doctors. He cannot argue them into thin air or blame the judge like the lawyers. He cannot, like the architects, cover his failures with trees and vines. He cannot, like the politicians, screen his shortcomings by blaming his opponents and hope the people will forget.

The engineer simply cannot deny he did it. If his works do not work, he is dammed . . .