

The MBTA Bus Schedule Line

Tufts University
Speech Recognition
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Nada Attar, Michael Gillespie, Meredith Staszak

- MBTA
- Scenario
- Current Solutions
- Our Solution
- Usability Test
- Project Expansion
- Questions?

- 364,000 bus users daily
- 1,030 buses
- 9,000 stations/stops
- 162 routes
- 730 miles covered

MBTA **Scenario** Current Solutions Our Solution

- Just missed the bus
- Taking a different bus than normal

Scenario

Current Solutions

Our Solution

Potential Users

- Paper schedule
- Website
- Mobile website
- PDA downloads

- Allow users to call the system and receive the schedule for any MBTA bus line
- Uses technology available to most people
- No future planning needed

Our Solution

Potential Users

Design

Features

- Need immediate access to schedules
- Without mobile internet access cell phones
- Without PDA's
- No internet access

Potential Users

Design

Features

Implementation

- Allows for quick access to bus schedules
- Linear call flow
- Short prompts
- Simple language

- Users only need to know bus line
- Returns next three stopping times
- Can get schedule for any day
- AM or PM?
- Notifies users of alternate methods to obtain schedule

Features

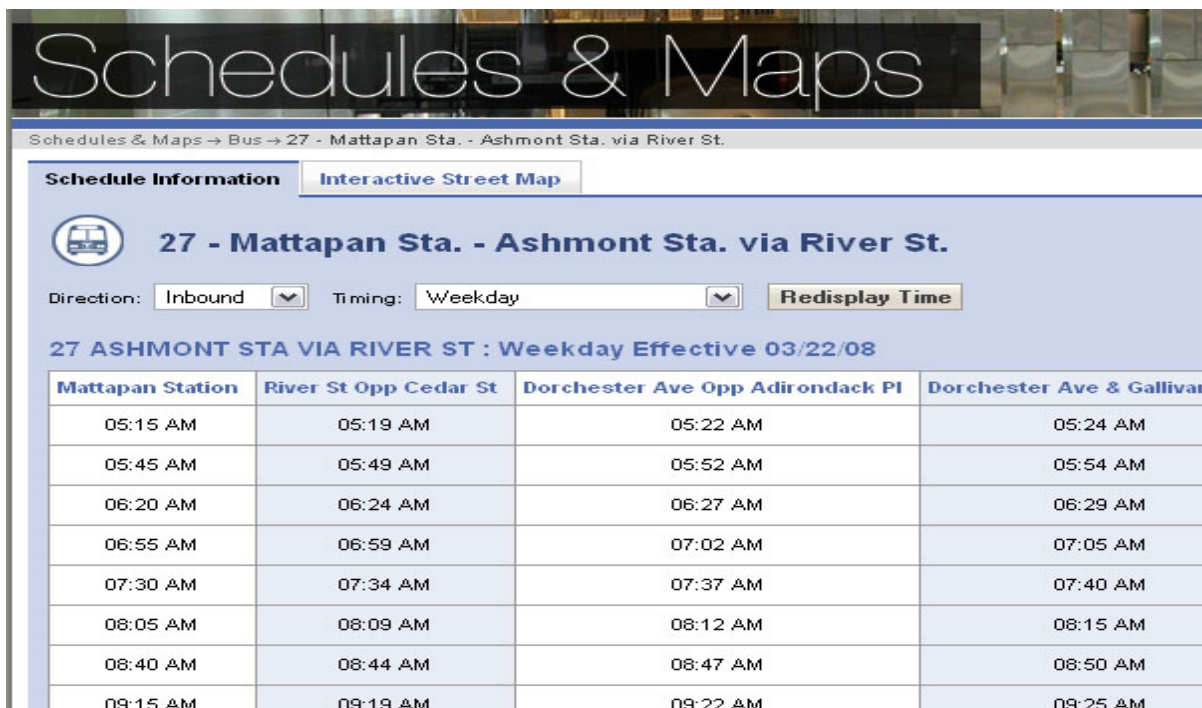
Implementation

Parsing the web

Demo

- Ruby
 - ‘rubygems’
 - ‘cgi’
 - ‘builder’
 - ‘hpricot’
 - ‘open-uri’


 http://www.mbta.com/schedules_and_maps/bus/routes/?route=80&direction=I&timing=W&RedisplayTime=



Schedules & Maps

Schedules & Maps → Bus → 27 - Mattapan Sta. - Ashmont Sta. via River St.

Schedule Information | [Interactive Street Map](#)

 **27 - Mattapan Sta. - Ashmont Sta. via River St.**

Direction: Timing: [Redisplay Time](#)

27 ASHMONT STA VIA RIVER ST : Weekday Effective 03/22/08

Mattapan Station	River St Opp Cedar St	Dorchester Ave Opp Adirondack Pl	Dorchester Ave & Gallivan
05:15 AM	05:19 AM	05:22 AM	05:24 AM
05:45 AM	05:49 AM	05:52 AM	05:54 AM
06:20 AM	06:24 AM	06:27 AM	06:29 AM
06:55 AM	06:59 AM	07:02 AM	07:05 AM
07:30 AM	07:34 AM	07:37 AM	07:40 AM
08:05 AM	08:09 AM	08:12 AM	08:15 AM
08:40 AM	08:44 AM	08:47 AM	08:50 AM
09:15 AM	09:19 AM	09:22 AM	09:25 AM

Parsing the web

Demo

Usability Test

Project Expansion

Insert audio file here

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Demo **Usability Test** Project Expansion Questions?

- Participants
- Task
- Results
- Redesign

- Voice talent
- Allow user to say bus stop name
- Allow user to enter all information at once
- Enter address and offer recommendations
- Approximate time between stops
- Extend to rest of MBTA
- Spanish version

Thank you