



ITS 2.0 - User-based Planning and Implementation

CiViTAS
Cleaner and better transport in cities



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What is ITS 2.0?

TS = Transportation System

- Static Information / Static System

ITS 1.0 = First Generation Intelligent Transportation System

- Dynamic Information / Static System
- Information used to help **OPERATE** the transportation system.
- Tactical: ... traffic signal control, real time public transport information.

ITS 2.0 = Second Generation Intelligent Transportation System

- Dynamic Information / Dynamic System
- Information used to help **PLAN and MANAGE** the transportation system.
- Strategic: ... infrastructure planning, business strategies.

Why is ITS 2.0 important?

Traditional strategies for improving transport systems:

- Big capital improvements
- Big bureaucracies
- Centralized systems

... are becoming less effective because:

- Problems are becoming more complex
- Society is changing (e.g. demography)
- Budgets are stretched



Could ...

... small-scale, locally organized, resident-based efforts integrated into an ITS 2.0 framework replace big centralized programs?

Yes ...

... new information technology applications provide people with tools that enable them to help “us” create more efficient and attractive transport systems.



What are these applications?

What we are doing on-line:

- 1 - Obtaining information ...
 - ... Providing information
- 2 - Buying things ...
 - ... Selling things
- 3 - Socializing
- 4 - Playing games ...
 - ... Playing games together
- 5 - Working ...
 - ... Working together (collaborating)

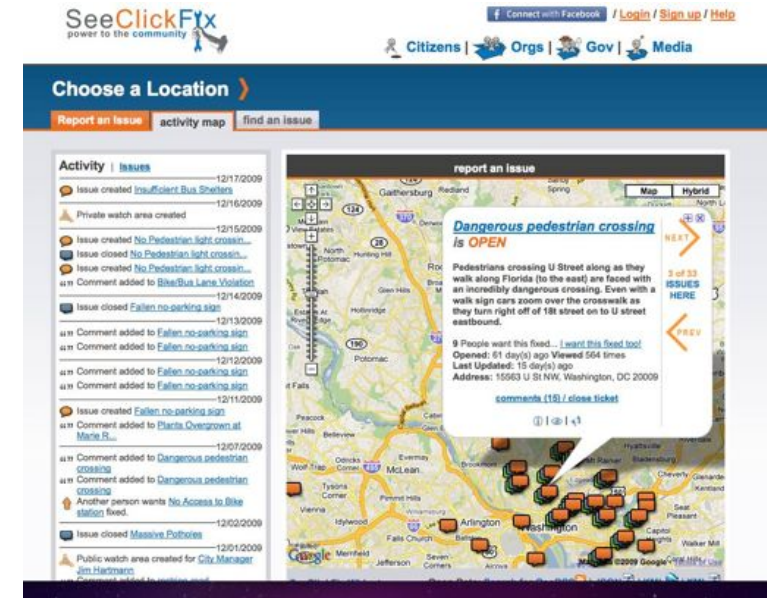
... these applications are being combined to create new ways of doing business and providing government services.



Here are some transport examples:

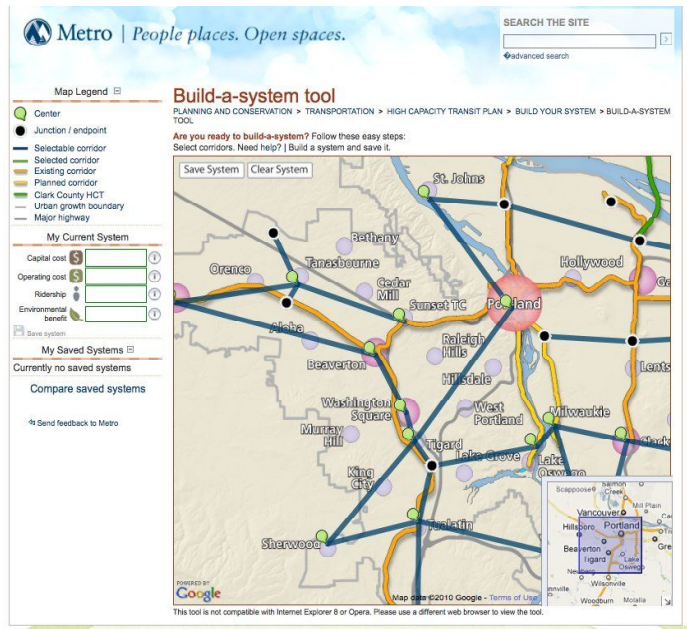
www.seeclickfix.com

Allows residents to identify non-emergency problems (e.g. potholes) and enables others to comment on problem importance and/or suggest solutions (crowdsourcing).



www.nextstopdesign.com

Provides tools and information that allows residents to help design a generic bus stop and a specific bus stop for a particular location.

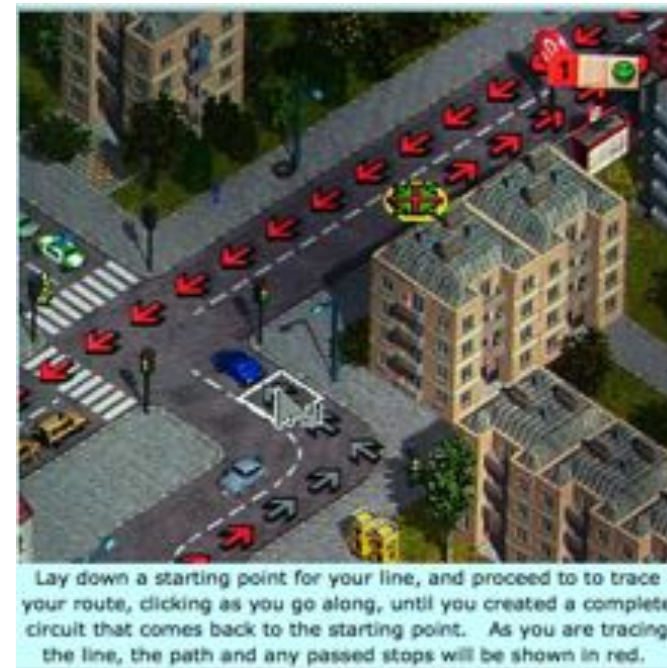


Portland Metro: Build a system tool

Allows residents to compare different high capacity public transport systems (cost, impact, etc.). Used as part of public participation process.

Traffic Giant Game

Game allowing players to design and operate their own public transport lines in an imaginary city. Interesting are the realistic planning instructions. Similar: Sim City, Transport Tycoon, etc.



Why games?

Games provide an excellent hub from which other applications can be linked.

- People have time - “cognitive surplus” (Shirky, 2010)
- People want to help improve the world and do a good job - “intrinsic motivation” (Pink, 2010)
- Games provide all the main components of happiness (McGonigal, 2010):
 - Satisfying work
 - The experience of being good at something
 - Time spent with people we like
 - The chance to be part of something bigger



Transport Games

Entertainment Games

- Sim City
- Transport Tycoon

Learning Games

- Mobikids - Vienna

Learning, testing and supporting

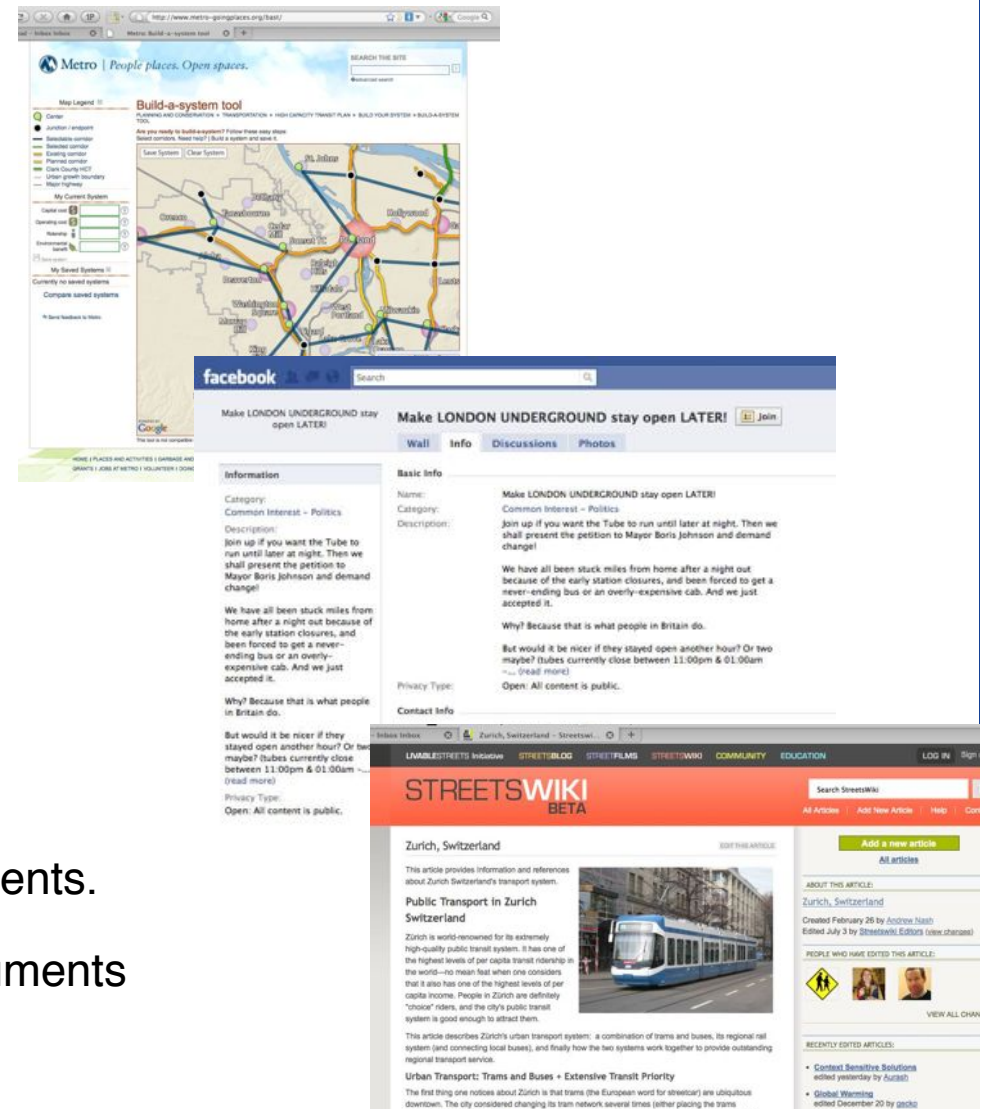
- Bus Meister - Vienna
- Working on the Railroad



Bus Meister

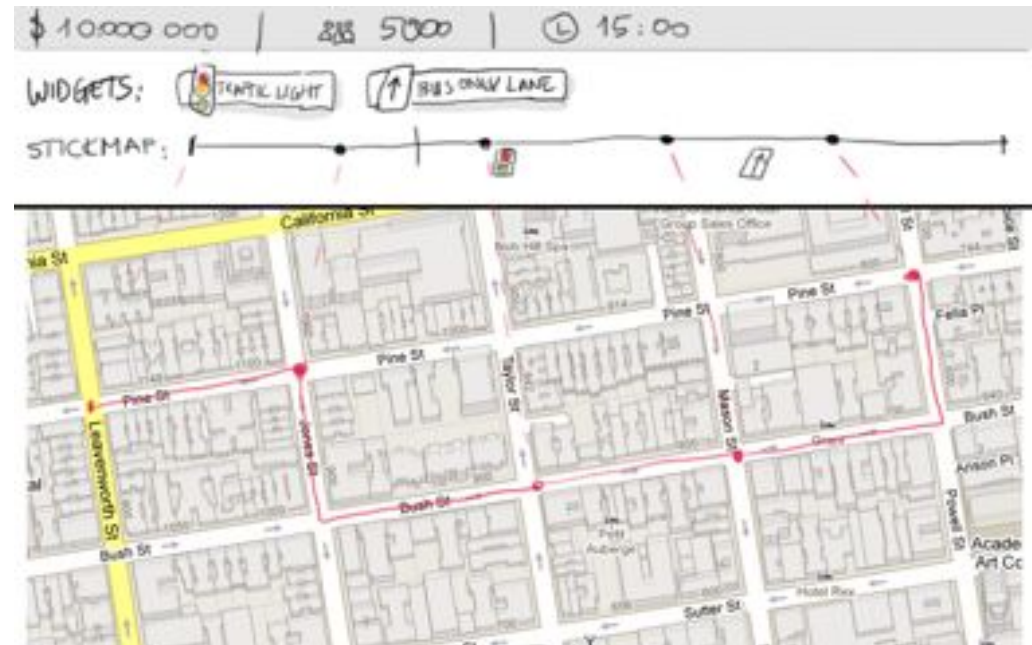
Bus Meister helps residents identify and implement ideas for improving public transport:

- **Game** - players learn how PT priority can improve service on their routes.
- **Social networking tools** - help players generate political support for implementing PT priority improvements.
- **Crowd sourced research wiki** - documents best practices in PT priority.



Bus Meister Game

- Players enter information (routes, stops, etc.) about their PT route into the game;
- Google maps/ GPS-enabled device interfaces facilitate data entry;
- Players test PT priority improvements by dragging “widgets” onto the route maps;
- Game educates players, increases interest and helps identify best solutions.



Conclusions

Chris Anderson wrote:

*If the past 10 years have been about discovering post-industrial social models on the Web, then the next 10 years will be about **applying them in the real world**. (Wired 18.02)*

No where is it more important to apply these new ideas than in government ... where traditional centralized approaches are no longer effective.

Bus Meister is an example of an integrated internet application that **educates and empowers** people to improve the efficiency and attractiveness of their urban public transport systems.

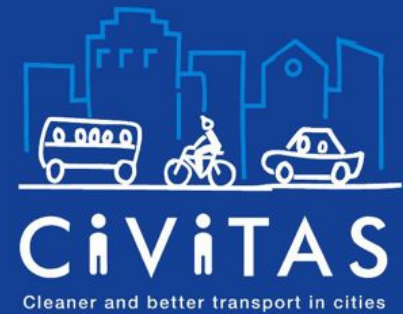
This basic approach of education and empowerment can be used to solve a wide variety of urban problems.

Thank you

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