Mobility for All: Community Access through Intelligent Mass Transportation Systems

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conducted at the Center for LifeLong Learning and Design (L3D).

Mobility for All is a Cognitive Levers research project being

This project is supported by the Coleman Initiative.

Overview: The Mobility for All project is focused on lowering barriers to community access and mobility for those with cognitive disabilities. Since operating an automobile is not a viable transportation option, we are designing frameworks and technologies to make mass transportation systems more accessible for those with cognitive disabilities who are capable of working or living independently.



Goals: The Mobility for All project seeks to identify and overcome cognitive barriers in modern mass transportation systems. Our approach is to create *collaborative partnerships* with assistive technology specialists, urban transportation planners, cognitive neuro-scientists and information technologists to better understand the subtle complexities of this problem.



Arrithon Barrison Chicologo



Design concept: a Location-Aware, User-Supportive Bus System

We envision several technologies could provide mobile, intelligent, and personalized information in multiple modes (visual, auditory, tactile). These technologies would simplify route planning, display boarding cues, and provide other personally contextualized information about buses as they arrive. The technologies could also communicate special user needs (e.g. a destination or needed connections; physical access needs; etc.) using wireless or smart tag technologies so bus system operators can assist the rider in boarding the correct bus and making connections. Location-aware wireless technologies could also be used to monitor trip progress – while maintaining privacy – or notify a caregiver if there are problems. We are collaborating with caregiver communities who teach



the cognitively disabled to use public transportation systems, urban designers, and city transportation system experts to design enabling technologies and implement an initial design prototype.



Cognitive Levers Project www.cs.colorado.edu/~I3d/clever