

Just Another Way to Ride

Exploring the Potential of Adaptive Cycle Sharing



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Seattle
Department of
Transportation

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SDOT's Mission, Vision, and Core Values

Mission: deliver a high-quality transportation system for Seattle

Vision: connected people, places, and products

Committed to **5 core values** to create a city that is:

- Safe
- Interconnected
- Affordable
- Vibrant
- Innovative

For **all**

Presentation overview

- What are adaptive cycles?
- What can adaptive cycling offer people with disabilities?
- What can adaptive cycling offer people of all abilities?
- How can cycle sharing increase adaptive cycle access?



What Are Adaptive Cycles?

What Are Adaptive Cycles?

"Adapted cycles make cycling accessible to all, whatever your personal challenges.

There are a wide range of special cycles that suit people with a variety of learning and physical disabilities, as well as health issues."

-Cycling UK

Tricycles

- Upright vs. Recumbent
- Delta vs. Tadpole
- Cargo?



Handcycles



Tandem Cycles



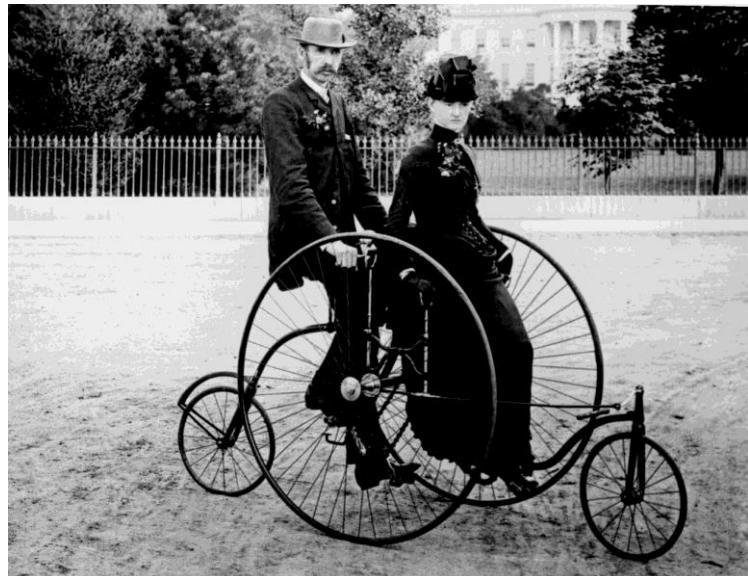
And More...

- Prone cycles
- Electric pedal assist
- Heavy Duty cycles
- Grips and braces
- Individual customizations



Adaptive Cycling in History

- Early cycling (before 1880): experiments on two, three, four wheels
- 1880-1900: safety bicycle becomes the default design
- 1900-1970: automobile boom, cycling bust
- 1970-present: (bi)cycling resurgence



Adaptive Cycling and Disability Opportunities

- The right configuration or modifications allow nearly anyone to cycle
- Recreation, exercise
- Transportation, errands
- Socializing and building culture
- Empowering



Adaptive Cycling and Disability Challenges

- Economic barriers
 - Expense
 - Small retail market
 - Smaller sharing market
- Information barriers
 - Lack of awareness
 - Stigma
- Limited support
 - Political barriers
 - (Bi)cycling culture



Adaptive Cycling and All Abilities

- Don't self-identify as disabled
- Temporary illness or injury
- Elders
- Lifelong cycling
- Never learned
- Anyone's daily needs or wants



Andres Salomon #DreamActNow @Andres4Seattle · Apr 18

👉 Bicycles 👕 Are 👕 Mobility 👕 Devices 👕

👉 Just 👕 Like 👕 Wheelchairs 👕 And 👕 Walkers 👕

Queen Anne Greenways @QAGreenways

I hurt my toe about a week ago and have been barely able to walk (getting better tho). I've basically been using bike share as a wheelchair. Not sure what I would do without it. @seattledot

[Show this thread](#)

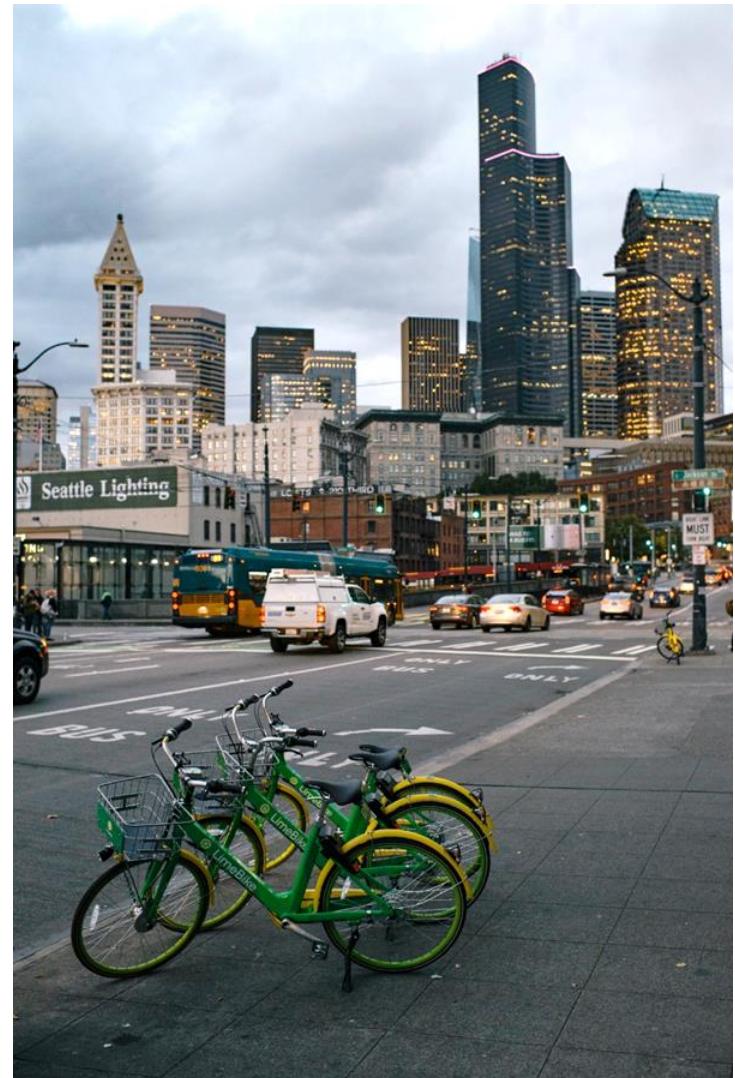


Adaptive Cycle Sharing

Adaptive Cycle Sharing

SDOT's work so far

- Free-floating bike share pilot evaluation
- Exploratory research
 - Public meeting with disability community
 - Meetings with advocacy organizations
 - Three surveys
 - Program feedback



Adaptive Cycle Sharing

Benefits

- More transportation and recreation options
- Support cycling and exercise for all abilities
- Support self-sufficiency and aging in place
- Reduce car trips and air pollution
- More inclusive cycling culture
- More visibility for the mobility needs of people with disabilities



Adaptive Cycle Sharing

Barriers

- Few existing providers, no largescale examples
- Scalability vs. accommodating individual needs
- Step-free cycle network
- Knowing where to find the right cycle for you
- Getting on and off; mobility device storage
- Sighted riders
- Parking and storage
- Expense



Adaptive Cycle Sharing

Potential Distribution Models: Depot-Based

- Examples: Outdoors for All (Seattle), Adaptive BIKE TOWN (Portland)
- Advantages
 - Individual fittings and education provided
 - Store mobility device at depot
 - Wide variety of models
- Limitations
 - Recreational round trips only (or depot to depot)
 - Low ridership potential



Adaptive Cycle Sharing

Potential Distribution Models: Delivery

- Examples: Pedal Anywhere (Seattle), MoGo delivery-to-dock (Detroit)
- Advantages
 - User reserves cycle for delivery to home or pickup location
 - Individual fittings and education possible with attended delivery
 - Store mobility device at home or pickup point
- Limitations
 - Preplanned trips only
 - Delivery and pickup costs



Adaptive Cycle Sharing

Potential Distribution Models: Dock-Based

- Examples: Zagster (Westminster, CO; Fort Collins, CO; Carmel, IN)
- Advantages
 - Can pick up and drop off at any dock
 - Supports both recreation and transportation
- Limitations
 - Standardized commercial models; no individual fittings
 - No mobility device storage
 - Limited service area

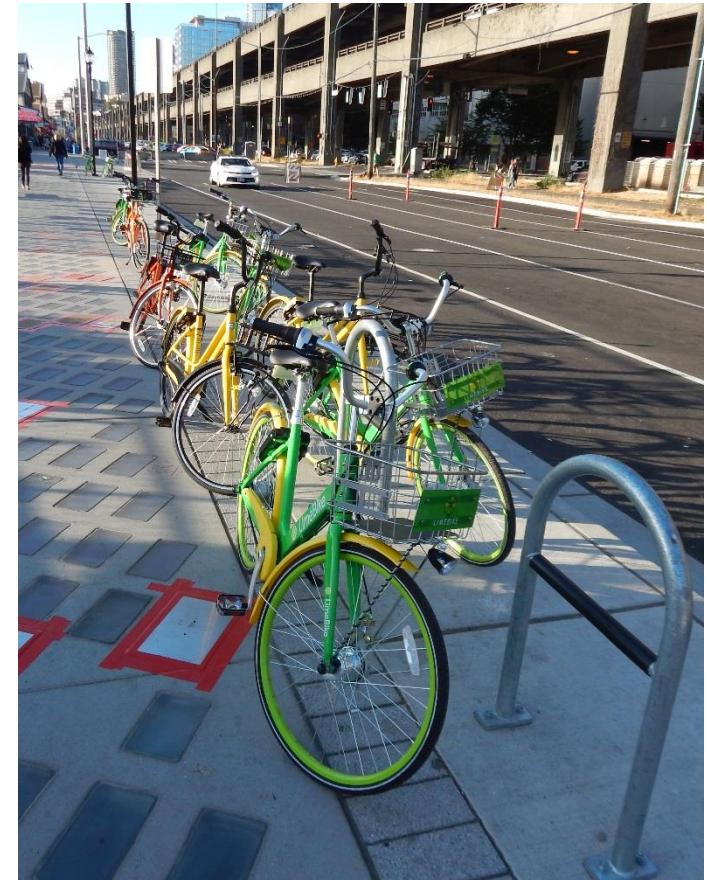


Photo credit: Fox59.com

Adaptive Cycle Sharing

Potential Distribution Models: Dockless (Free-Floating)

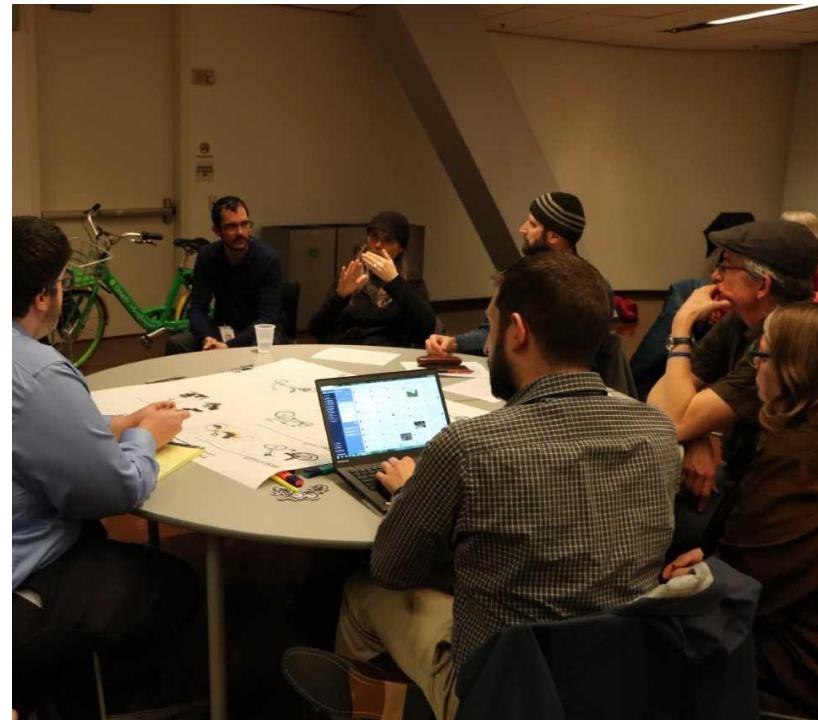
- Examples: E-bikes in Seattle
- Advantages
 - Anywhere to anywhere trips – most flexible, large service area
 - Supports trips for recreation and transportation
- Limitations
 - Standardized commercial models; no individual fittings
 - No mobility device storage
 - Pickup point changes
 - Parking challenges



Adaptive Cycle Sharing

Feedback so far

- Disability community
 - People with disabilities need opportunities to build cycling culture
 - Recreation → transportation
 - Broad interest in cycle types
 - General population
 - Are they for everyone?
 - Interest in ebikes, cargo, tandems
 - Scooters, family bikes?
 - No single solution fits all



Adaptive Cycle Sharing

Next steps

- Keep collecting data and feedback
- Explore programming and funding options
- Form key partnerships
- Build awareness of adaptive cycling options for all

Thanks!

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www.seattle.gov/transportation/newmobility



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