Just Another Way to Ride
Exploring the Potential of Adaptive Cycle Sharing

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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?

“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
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 BIKETOWN (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
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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
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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