An Introduction to TeachOSM

Teaching Geography with OpenStreetMap

Agenda

- What is TeachOSM?
- Why do we need TeachOSM?
- Highlights
- Six Reasons to use OSM to teach geography
- Summary

TeachOSM: A Resource for Educators

Getting Youth Involved

Photo: middle-school school students learning to map.
Credit: MaptimeSF/Lyzi Diamond

What is TeachOSM?

- TeachOSM is a growing resource for educators at all levels to introduce open source mapping in their classrooms and training sessions.

- TeachOSM offers modular lessons that teach basic geographic concepts through applied mapping on OpenStreetMap.

- TeachOSM has resources to help instructors to identify, assign, manage and grade a mapping assignment.

Photo: Mapping peaks using GPS.
Credit: SEJohnson

Why do we need TeachOSM?

- Provide tools for educators not found in other OSM learning materials
- Demonstrate the utility of OSM to teach geo-literacy
- Help students/young adults engage with the landscape
- Build a pipeline of talented mappers to sustain the project
- Create opportunities for meaningful citizen engagement

What does TeachOSM do?

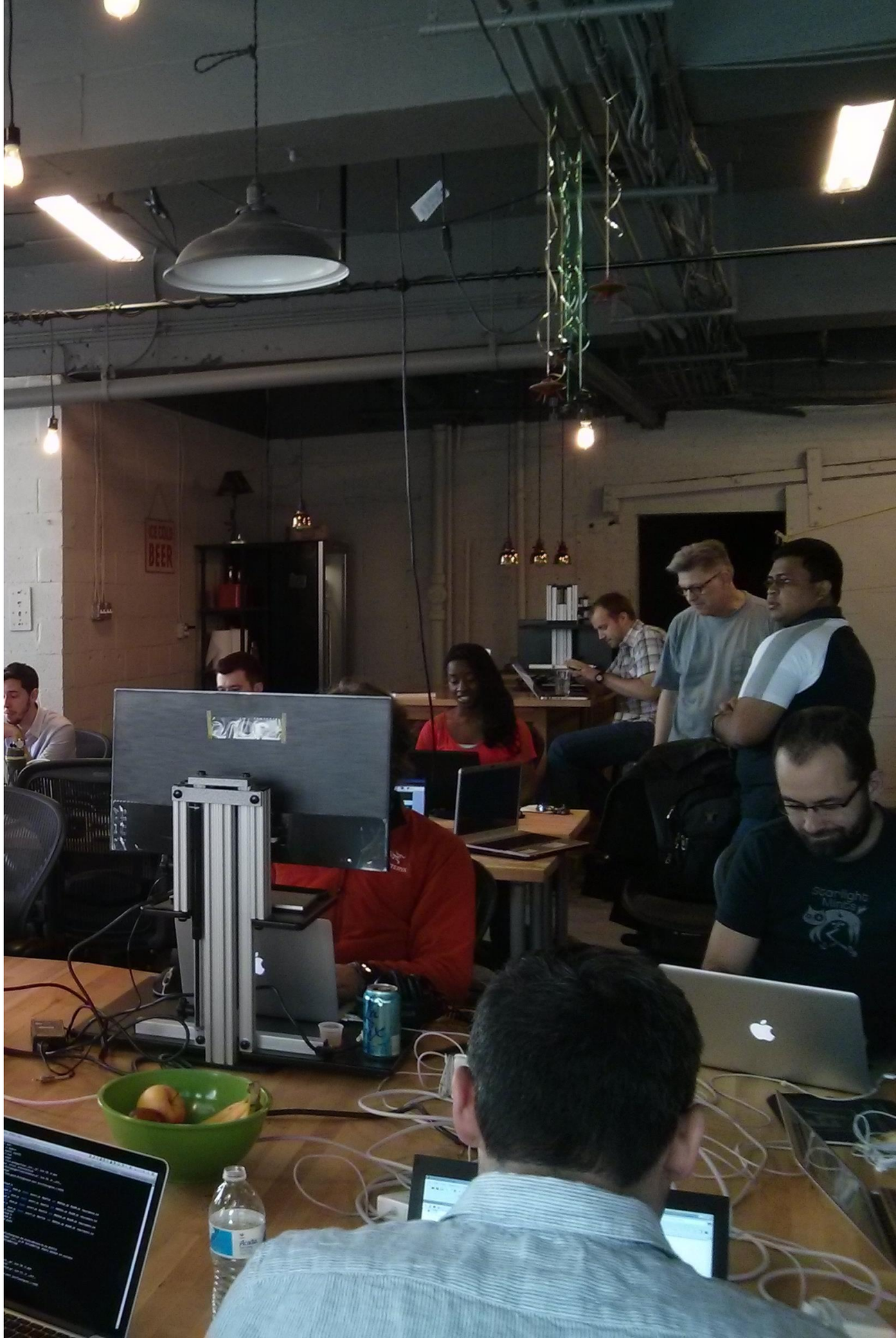
- Established a web site
- Create repository of case studies
- Planned half-day workshop for educators
- Outreach to teachers, educators, youth leaders
- Established micro credential initiative to award credit for service hours

Photo: middle-school school students learning to map.
Credit: SEJohnson

For educators…

- Basic map editing skills
- How to manage student accounts
- Organizing & managing your mapping event
- The Tasking Manager, for assigning blocks of work
- Quality control, assessment, grading
- Ready-made projects for teachers to adapt

Photo: Mapathon, Spring 2014.
Credit: Brian DeRocher



For Students…

- Teach basic digital mapping skills
- Provide opportunity for vocational learning
- Offer service learning opportunities
  - Humanitarian OpenStreetMap Team (HOT)
  - MapGive
  - MissingMaps
  - DC Great Streets
- Cultivate geo-literacy through guided mapping projects

Photo: middle-school school students learning to map.
Credit: SEJohnson

GeoBadges: Micro-credentials for Service Learning

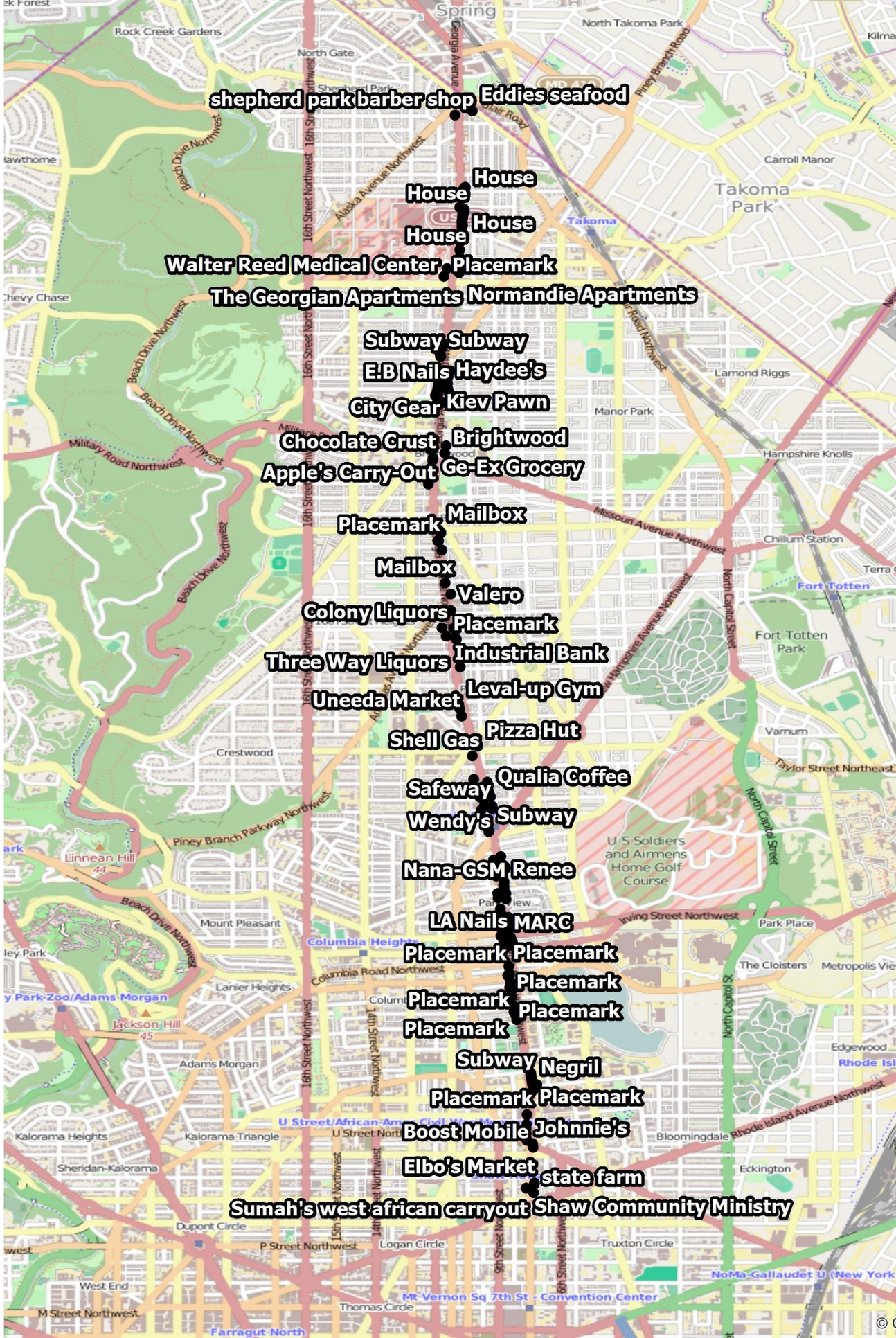
- A new initiative to give credentials to students and teachers for contributions to OpenStreetMap
- Expectations:
  - Contribute to the map & foster community
  - Be a Resource for Peers
  - Develop an Understanding of Basic Digital Mapping Constructs
  - Contribute to Community Mapping Goals (local, HOT, MapGive, MissingMaps)
- Web: http://geobadges.org/

Highlight: TeachOSM and the Georgia Avenue Project

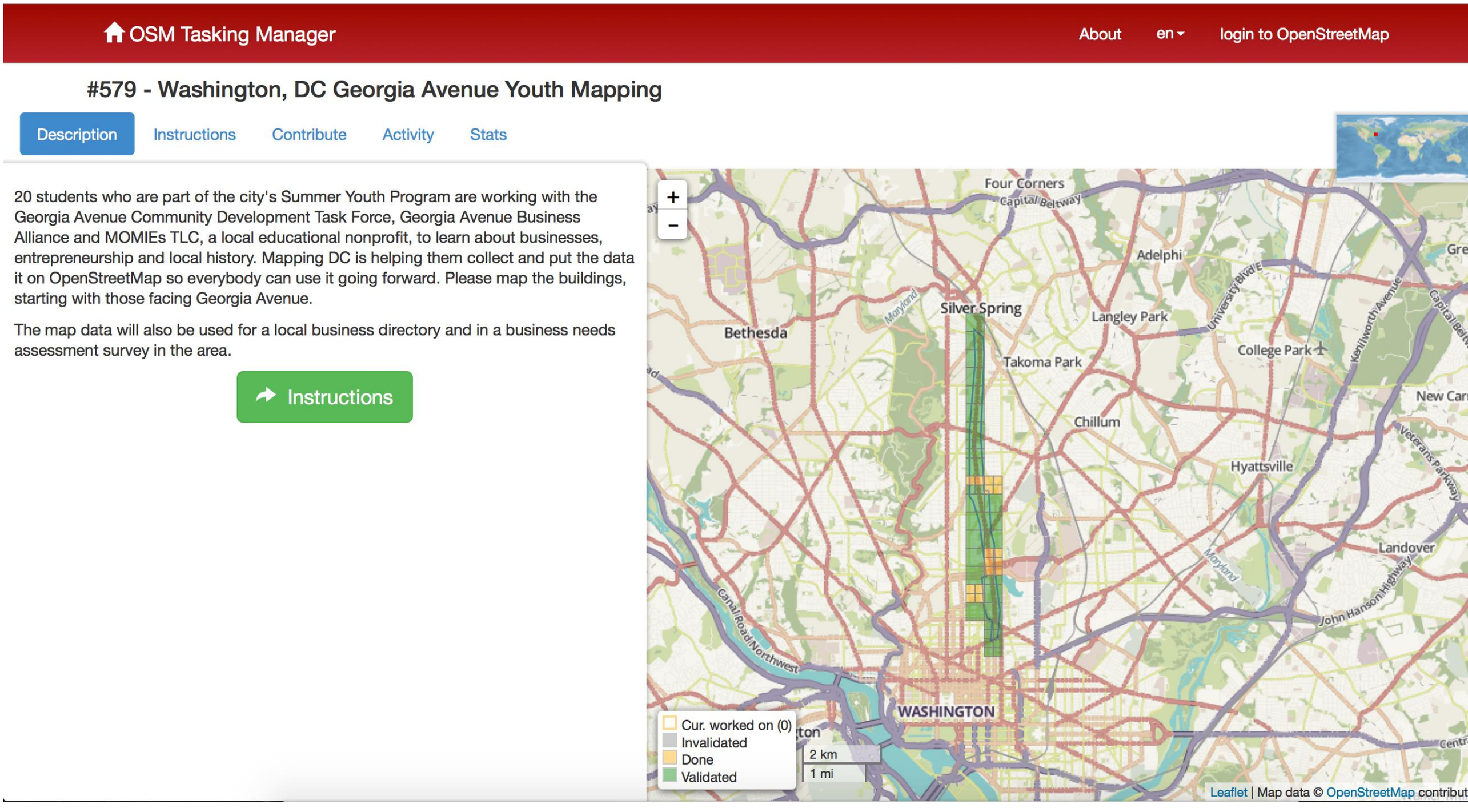
Training Young Adults to Map

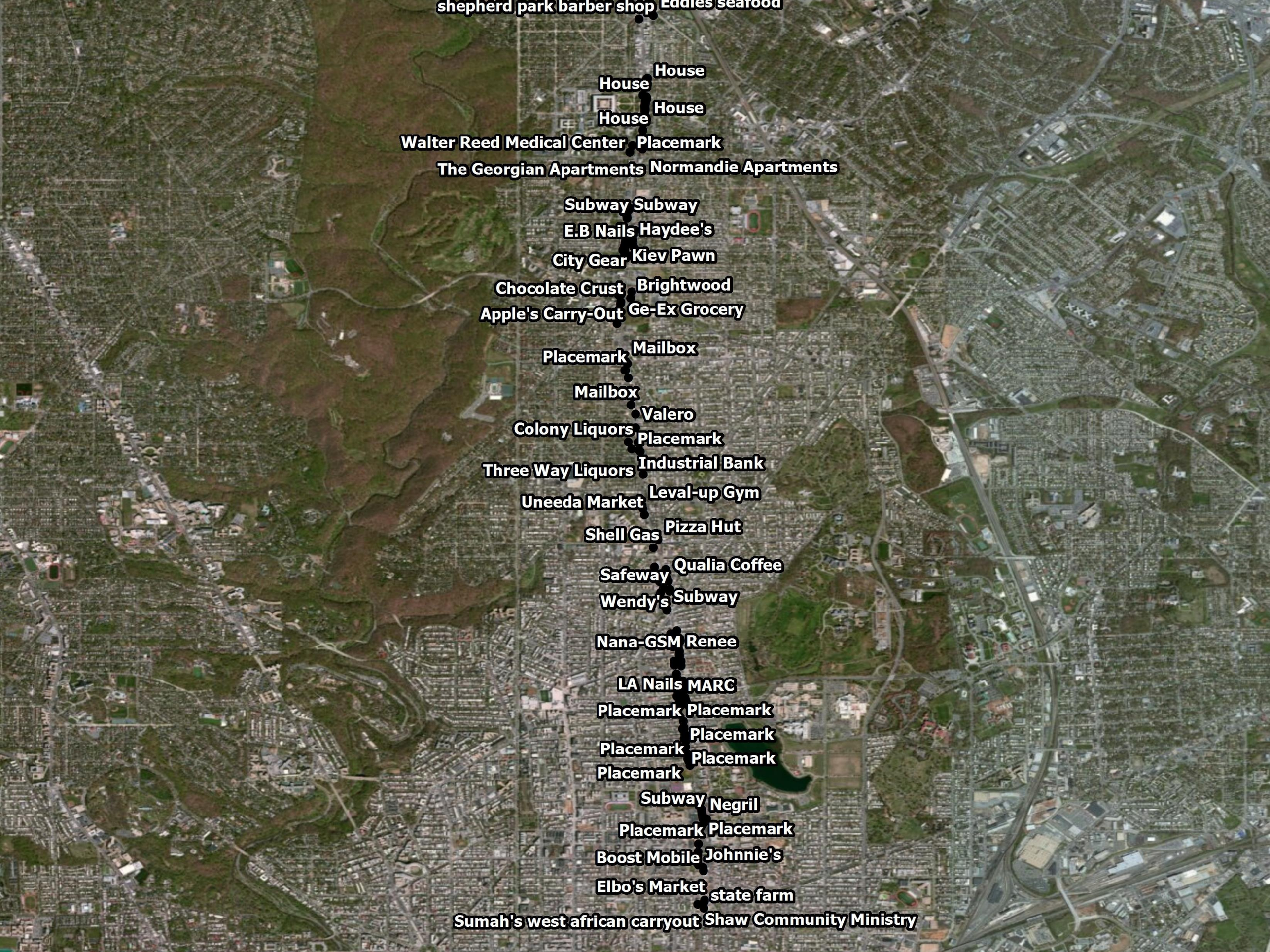
Georgia Avenue Mapping Project

- Youth Ambassadors used Georgia Ave data gathered for street-level survey
- We trained ~15 Youth Ambassadors in how to edit in OpenStreetMap
- Results:
  - Over 270 features added to the OpenStreetMap
  - Survey data visible on the map!
- http://wiki.openstreetmap.org/wiki/Georgia_Avenue_Youth_Ambassadors_Mapping_Project



Using the OSM Tasking Manager to control workflow

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Chocolate Crust
Brightwood
Apple's Carry-Out
Ge-Ex Grocery
Placemark
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Valero
Colony Liquors
Placemark
Industrial Bank
Three Way Liquors
Leval-up Gym
Uneeda Market
Pizza Hut
Shell Gas
Qualia Coffee
Safeway
Subway
Wendy's
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Placemark
Boost Mobile
Johnnie's
Elbo's Market
state farm
Sumah's west african carryout
Shaw Community Ministry

Highlight: HOT Indonesia

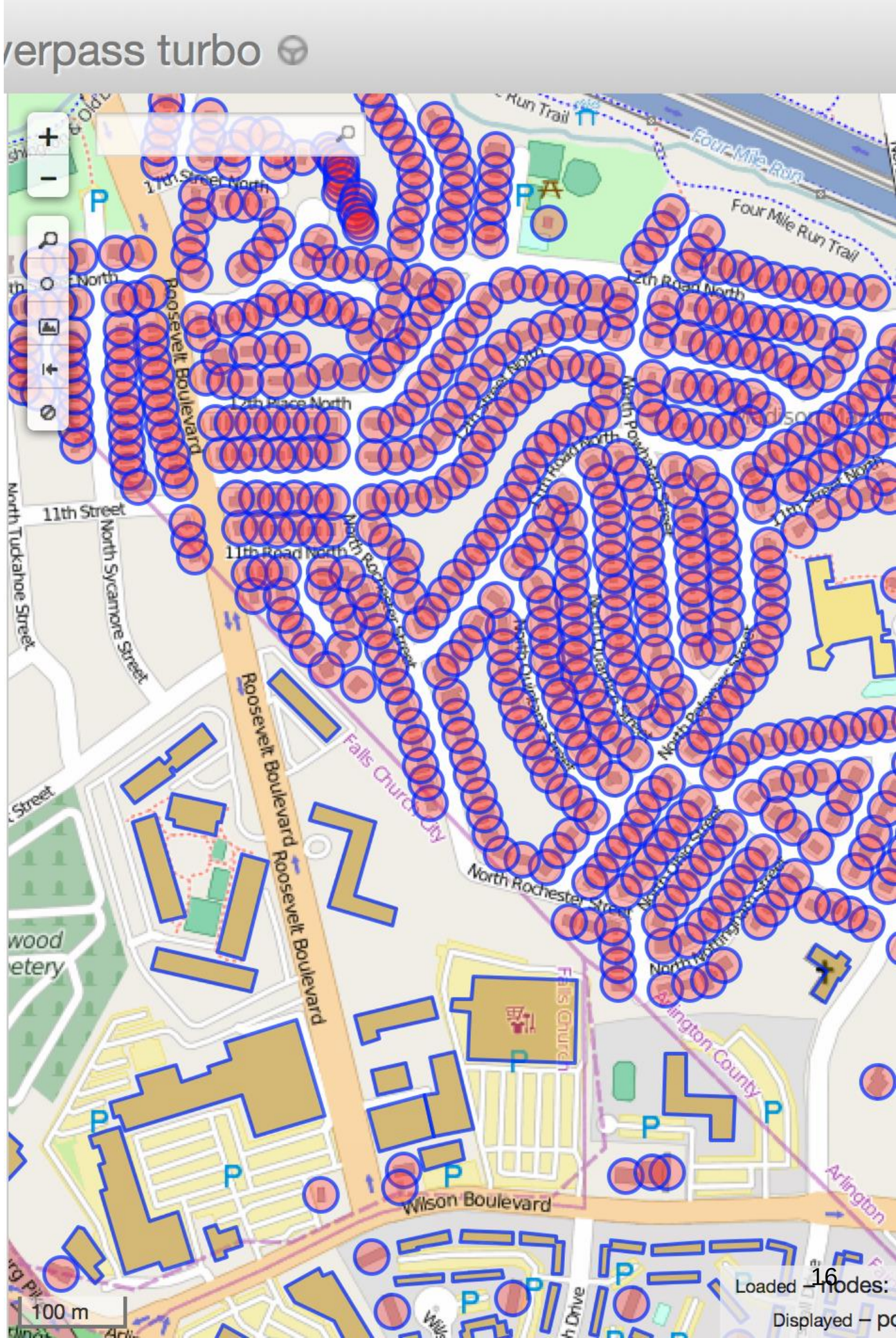
University Outreach Program

University Outreach & Contingency Planning

- Focus is disaster preparedness and contingency planning for vulnerable areas
- Working with local communities to identify & map exposure and risk
- Using QGIS & InaSAFE plugin for downstream analysis
- Over 4 years, conducted 86 trainings, 2300 people trained, ~2m buildings, ~14500 schools

Why TeachOSM?

Reasons to Use OpenStreetMap to Teach Geography



OpenStreetMap Gives Students Immediate Experience

- Direct Learning - Young adults gain direct experience of space, place, and location
  - Geography at a 1:1 Scale
  - The terrain *is* the map
  - Nurture and understanding of how to read the landscape

OpenStreetMap Reinforces Social & Historical Literacy

- Provides meaningful engagement for children that can broaden academic & career options
  - History-shaping events often happen at certain places for geographic reasons.
  - Contributing to OSM, -through site surveys, editing, & meeting other citizens, helps us understand geographic processes that underpin social events.

OpenStreetMap Supports Collaborative Learning

- Mapathons help students establish positive relationships with other mappers in the community
  - Collaborate with your fellow citizens to record features of interest
  - Share observations about your community
  - Give visibility to community landmarks

OpenStreetMap Provides Opportunities for Service-based Learning

- Opportunities to engage in ongoing community service projects & service learning engagements
  - Contribute to humanitarian relief efforts through Humanitarian OpenStreetMap Team
  - Use MapRoulette ‘micro-tasking’ to help improve map quality
  - Give young adults a meaningful stake in maintaining map data in their neighborhood

OpenStreetMap Supports Self-directed Learning

- The open platform encourages self-guided learning and allows students to challenge themselves.
- Mapping projects encourage collaboration & teamwork
- Students learn how to think critically about geographic features and how to model their world.
- Active mapping nurtures the young adult’s natural inquiries into the world.

OpenStreetMap Requires No Special Resources

- No software required - works in the browser
- No permission required - OSM is a do-acracy: DO IT!
- Data are free and can be exported for downstream use in desktop GIS packages (e.g. QGIS, ArcGIS)
- No fees, licensing charges, royalties, paywalls, subscriptions, etc.

Sample Ideas for Projects

- Conduct a street survey in your neighborhood:
  - http://teachosm.org/en/cases/DCGreatStreets_survey_casestudy/
- Map for disaster relief/preparedness:
  - http://mapgive.state.gov and http://missingmaps.org/
- Add historical features to OpenHistoricalMap:
  - http://ow.ly/MfhZw
- Map local food resources:
  - http://teachosm.org/en/cases/farmers-market/
- Start a student mapping society:
  - https://www.facebook.com/GWHMS

Getting Involved

- Where do I get started?
  - Subscribe to the TeachOSM mailing list
  - Send an inquiry to info@teachosm.org
- How do I contribute?
  - Draft a case study for the web site (http://teachosm.org)
  - Help refine our materials

Photo: middle-school school students learning to map.
Credit: MaptimeSF/Lyzi Diamond

Summary

- As an open freely editable map of the world, OpenStreetMap is an excellent platform for teaching geography

- OpenStreetMap offers students geo-literacy, social engagement, service learning, and independent learning opportunities.

- OpenStreetMap is free and requires no special equipment

- Use TeachOSM and help us make it better

Thank You!

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