

April 19, 2023 | 2:00-3:00 pm ET

USING TECHNOLOGY TO MEASURE PARK USE

MODERATOR



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ACCREDITATION AVAILABLE FOR:



Landscape Architecture
Continuing Education System™

NEW!
General CEUs



**ONE OF AMERICA'S
GREAT URBAN PARKS**



4,500 acres of green space in Memphis, TN



Eco-Counters

BENEFITS

Valuable for estimating visitor counts and usage

CHALLENGES

Only counts cars, bicycles, or people that pass them

Visitors could be counted multiple times

Doesn't capture demographics, geography or other descriptors

Technology Goals

VISITOR USAGE

More accurate counts of who, when, where and where from

BEHAVIORS + NEEDS

Demographics, socioeconomics and personas

Perceptions and levels of knowledge about the Park

Who isn't coming to the Park and why? What are their barriers?

Values-Driven Technology

TIED TO OUR CORE VALUES

Visitors are the heart of our work

Collaborate with community

Honor all voices

Feedback is a gift



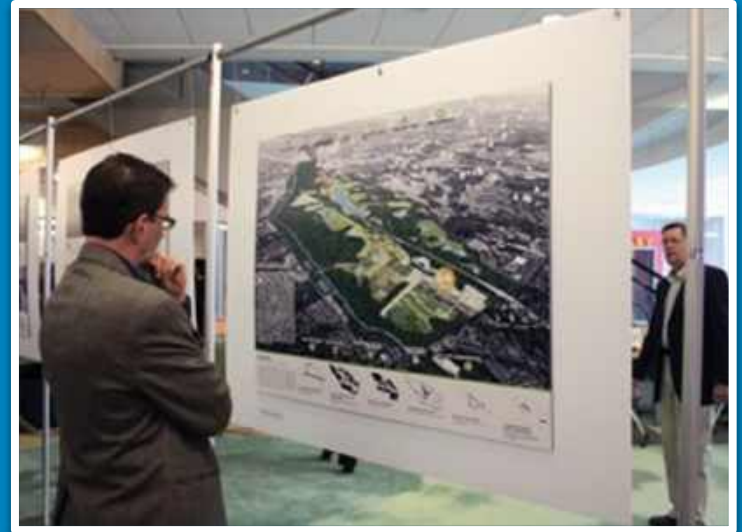
With and For the Public

Ambitious public outreach and input efforts

Wide cross-section of Memphis and Shelby County residents

Both visitors and non-visitors

Ensure that Park growth and enhancements align with community needs and wishes



Values-Driven Technology

VALUES & MISSION MATTER

How will better understanding our visitors:

Create better park experiences for them?

Help connect them to the nature in our care?

Build visitors up into supporters, volunteers and advocates?





Technology Partnership

Collaborate with our local convention and visitors bureau, Memphis Tourism

Geofences around Memphis-area sites – including Shelby Farms Park

Anonymous cell phone location data for more accurate visitor counts

Upscaled with Census Bureau data

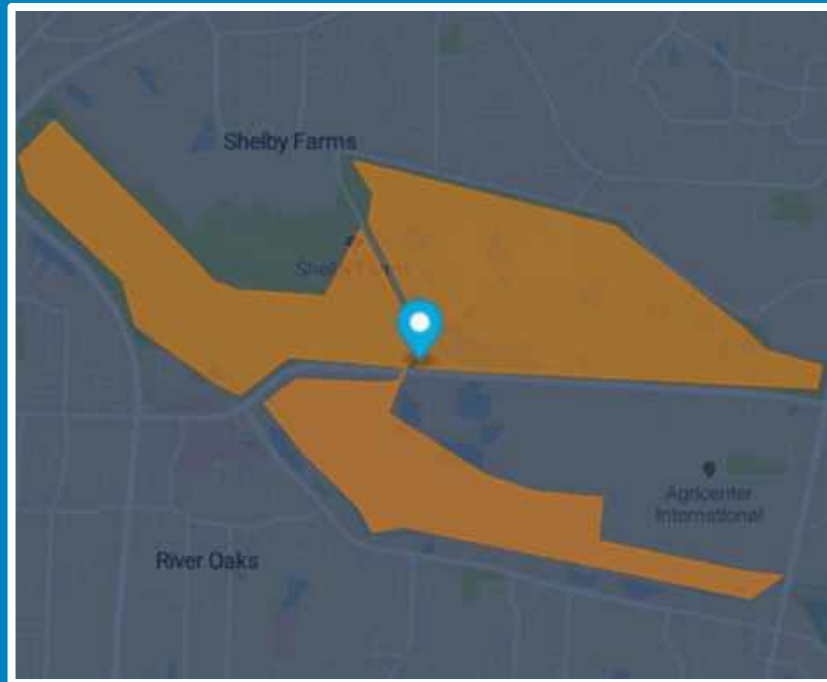




What is a Geofence?

Virtual geographic boundary, defined by GPS

+





What is a Geofence?

Triggers a “count” when a mobile device enters or leaves a particular area, tracked and organized by software

Upscaled with estimated Census Bureau data

Anonymous + Protected (not tied to specific individuals)

Does not capture every cell phone, but instead pulls a sample

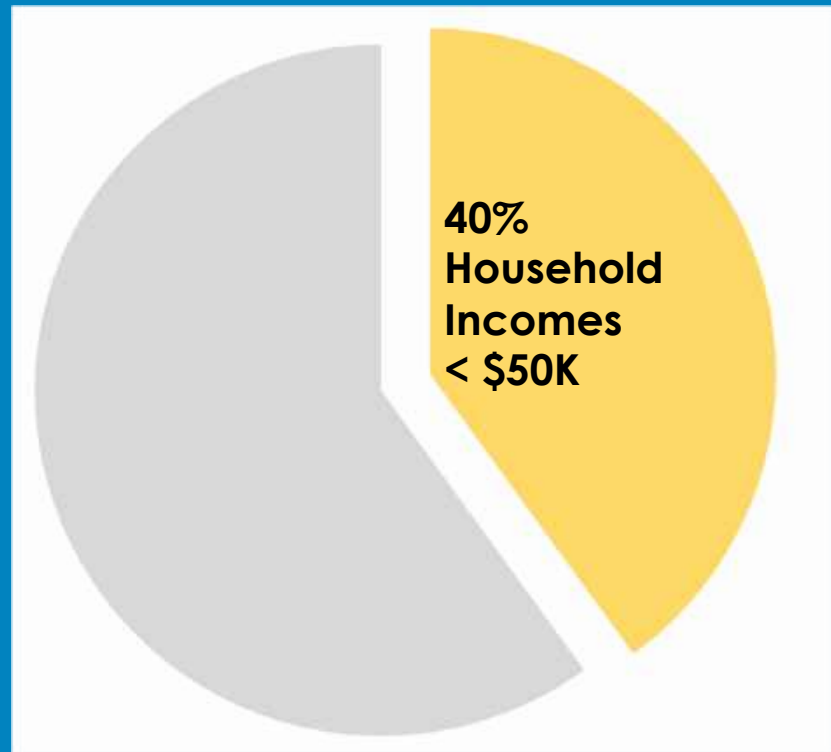


+



Preliminary Data Estimates

Example:





+



Preliminary Data Estimates

Example:



**Daily Avg:
6,200+
Visits**

BLENDED APPROACH

IN-HOUSE DATA

Donors, event attendees + Park Friends membership program

Park visitors from every ZIP code in Memphis and Shelby County

OBSERVATIONAL DATA

Conducted by the local Rhodes College faculty and students

Park used by a racially diverse group of people, with ages ranging from young children to the elderly

Transitional Phase for Tech

An aerial photograph of a modern campus or park-like setting. A large, dark blue lake occupies the right side of the image. A winding path or road curves along the left and bottom edges of the lake. Several small, landscaped islands are visible in the lake. In the background, there are green fields, trees, and some buildings, suggesting a suburban or rural location. The overall scene is bright and clear, with good lighting.

Next: Focus on igniting action

Gathering, analyzing and strategizing about how we interact with visitors, supporters and others in a way that inspires them to do something:

*Visit more
Volunteer
Donate*

*Spend money
Attend an event
Engage + share*

ENDLESS POSSIBILITIES

DOUBLE-EDGED SWORD

Offers tons of visitor data, which is great. But it can be like drinking out of a fire hose.

THOUGHTFUL APPROACH

Need to be strategic about which data points are most impactful and actionable. Weigh our capacity to act on data and build strategies we know we can accomplish and that will deliver the most meaningful results for our visitors and community.

GEOFENCING LIMITS

Doesn't capture every cell phone.

Excludes international phones, people 16 or younger, and phones with location services turned off

Difficult to capture a narrow or winding area by itself, such as with a trail

High cost

Not a “magic bullet” solution

ENGAGEMENT-BASED LEARNING

Blend qualitative and quantitative
to create a complete picture

Use qualitative tools (e.g. surveys)
to assess and understand what
technology alone can't tell us:

Perceptions

Knowledge

Wishes + desires for the Park



TIPS + TAKEAWAYS

DO YOUR HOMEWORK

Who else do you know who uses tech like this? Talk to them.

Explore all tech options. Haggle and ask for things like nonprofit discounts from vendors.

PARTNER

Is there an option like Memphis Tourism in your city?

TIPS + TAKEAWAYS

SET EXPECTATIONS

Understand that tech is not a “magic bullet.” You’ll need to blend with other research to create a full picture.

PLAN

Create a strategy at the beginning so you know what data you need and how you want to use it. This will tell you what tools you’ll need.

TIPS + TAKEAWAYS

IMPLEMENT IN PHASES

It's easy to get overwhelmed, so take your time and roll it out at a pace you can manage.

It's OK if you're between phases – we are!

LET'S CONNECT!

Ben Nemenoff,
Shelby Farms Park Conservancy
Director of Development

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***THANK
YOU!***





DETROIT RIVERFRONT CONSERVANCY
FOR EVERYONE. FOR 20 YEARS.

Rachel Frierson,
Senior Director of Programs and Public Spaces
Rachel.Frierson@detroitriverfront.org

An aerial photograph of a waterfront park at sunset. A large, blue, tent-like canopy structure with multiple peaks is the central focus. To its left is a small building with a grey roof and a brown door. The park area includes paved walkways, some outdoor furniture, and a playground with blue and silver equipment. In the background, a calm body of water reflects the golden light of the setting sun, which is visible on the left side of the frame. The sky is a mix of orange and blue.

**"BEAUTIFUL, EXCITING,
SAFE, ACCESSIBLE..."**

A photograph of a park scene with large, leafy trees. In the foreground, a person is lying on the grass. A bicycle is parked near a tree. In the background, several groups of people are sitting on chairs or the grass, enjoying the shade. A body of water and a fence are visible in the distance.

**...WORLD-CLASS
GATHERING PLACE...**

A wide-angle photograph of a public park area. In the foreground, a large, rectangular fountain with numerous small, vertical water jets is active. Many children are playing in the water, some running and others standing. A man in an orange shirt is on the left, and a child with a colorful headband is in the center foreground. The middle ground shows a paved walkway, more children, and a row of young trees. In the background, several tall, modern glass skyscrapers rise against a sky with scattered white clouds. The overall atmosphere is bright and lively.

...FOR ALL"



FOUNDING PARTNERS



THE
KRESGE
FOUNDATION





ATWATER STREET



CULLEN PLAZA



DEQUINDRE CUT



DEQUINDRE CUT





DETROIT RIVERWALK BEST IN THE USA



10 **USA TODAY**
10BEST
READERS'
CHOICE
2021

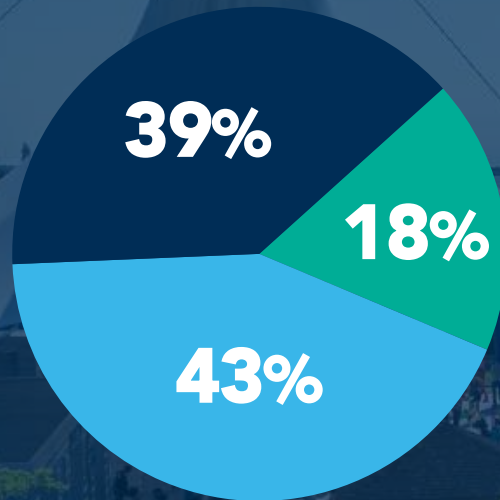


10 **USA TODAY**
10BEST
READERS'
CHOICE
2022



10 **USA TODAY**
10BEST
READERS'
CHOICE
2023

DETROIT RIVERFRONT COMMUNITY



39% Detroit

43% Southeast Michigan

18% Other Michigan, USA & International

3,000,000+

Annual Visitors

320,000+

Program Participants

84% of Detroiters

Have visited the Riverfront in the past year.



MEASURING USE THROUGH EXISTING INFRASTRUCTURE

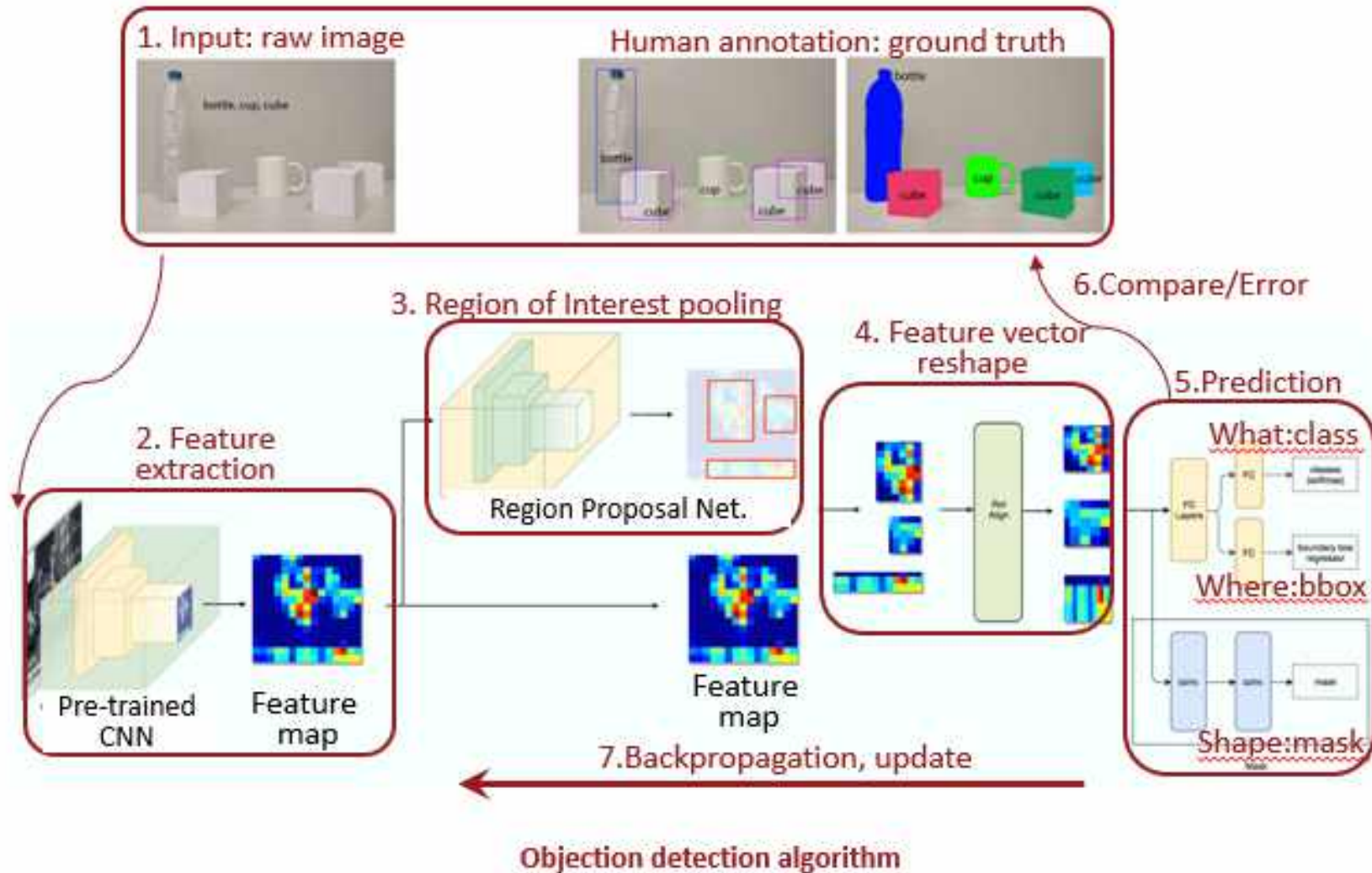


DETROIT
RIVERFRONT
CONSERVANCY

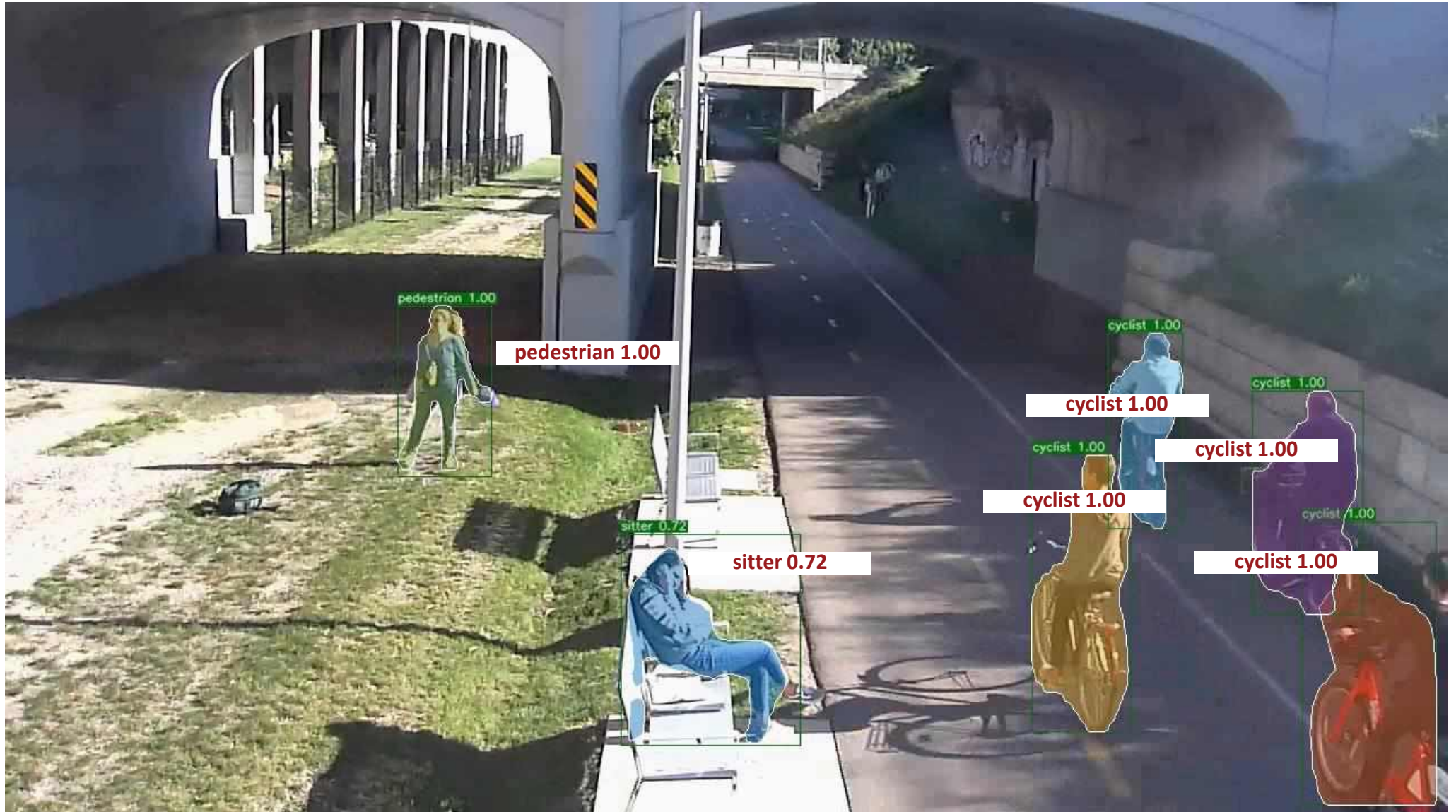
A photograph of two individuals, a woman and a man, working together outdoors. The woman, on the left, has blonde hair tied back and is wearing a blue long-sleeved shirt. She is leaning over a light blue wooden structure, which appears to be a piece of equipment or a workbench. The man, on the right, is wearing a blue hoodie with a neon green stripe and khaki pants. He is also leaning over the same structure, looking down at something the woman is holding. The background shows green trees and a building, suggesting a campus or park setting. A dark blue horizontal bar with white text is overlaid in the center of the image.

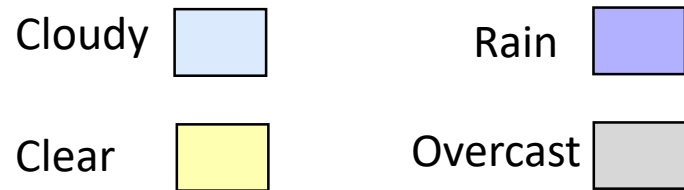
UNIVERSITY OF MICHIGAN PARTNERSHIP

TRAINING STAGE: ALGORITHM

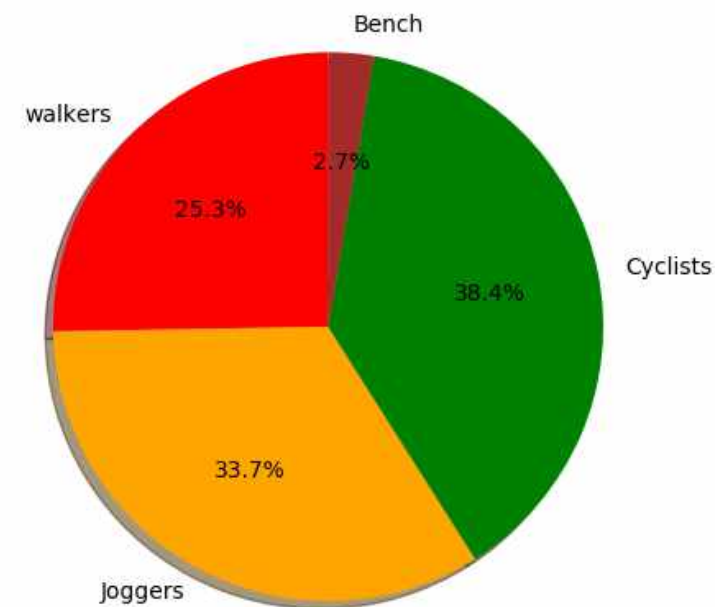
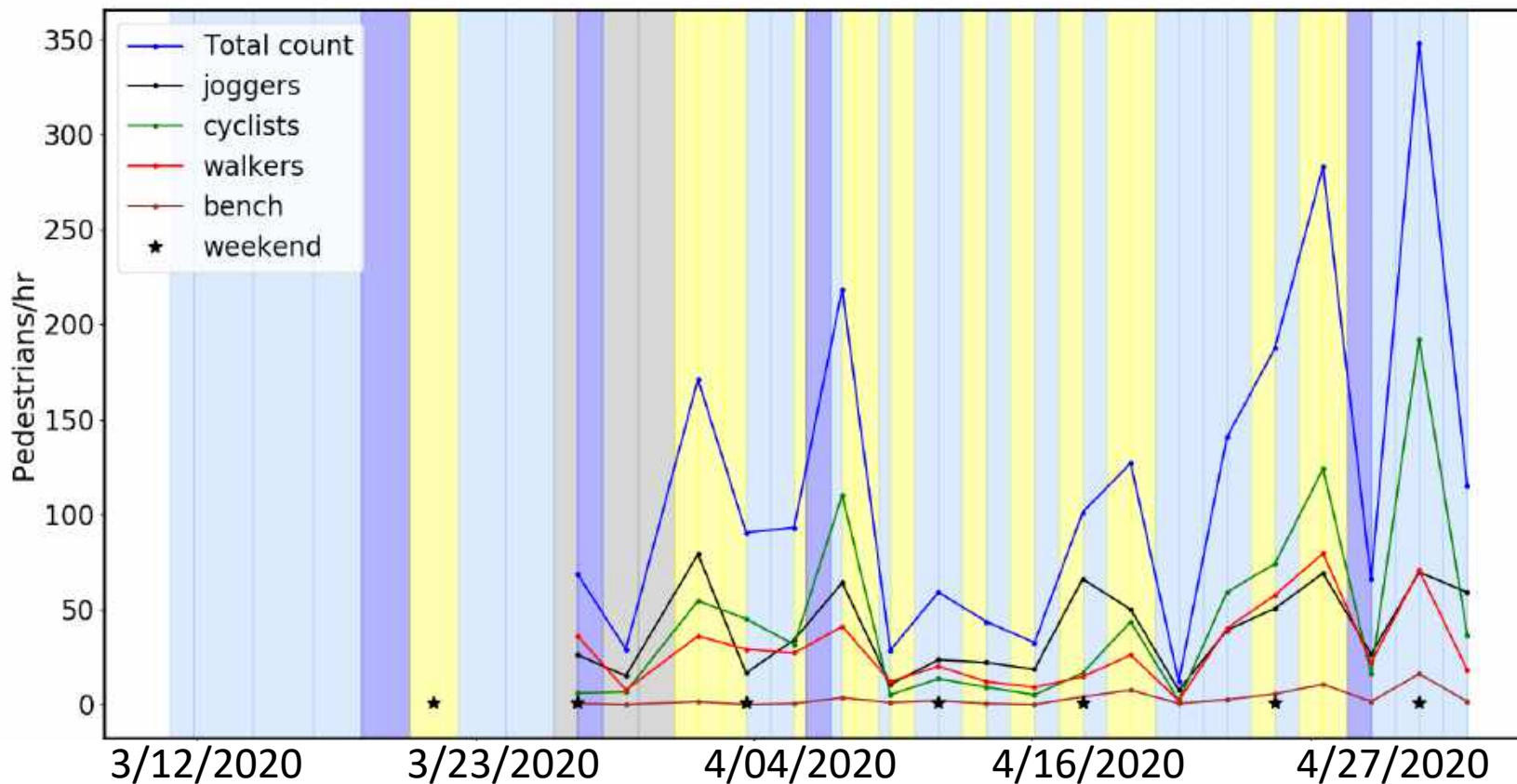


RESULTS: PEOPLE DETECTION

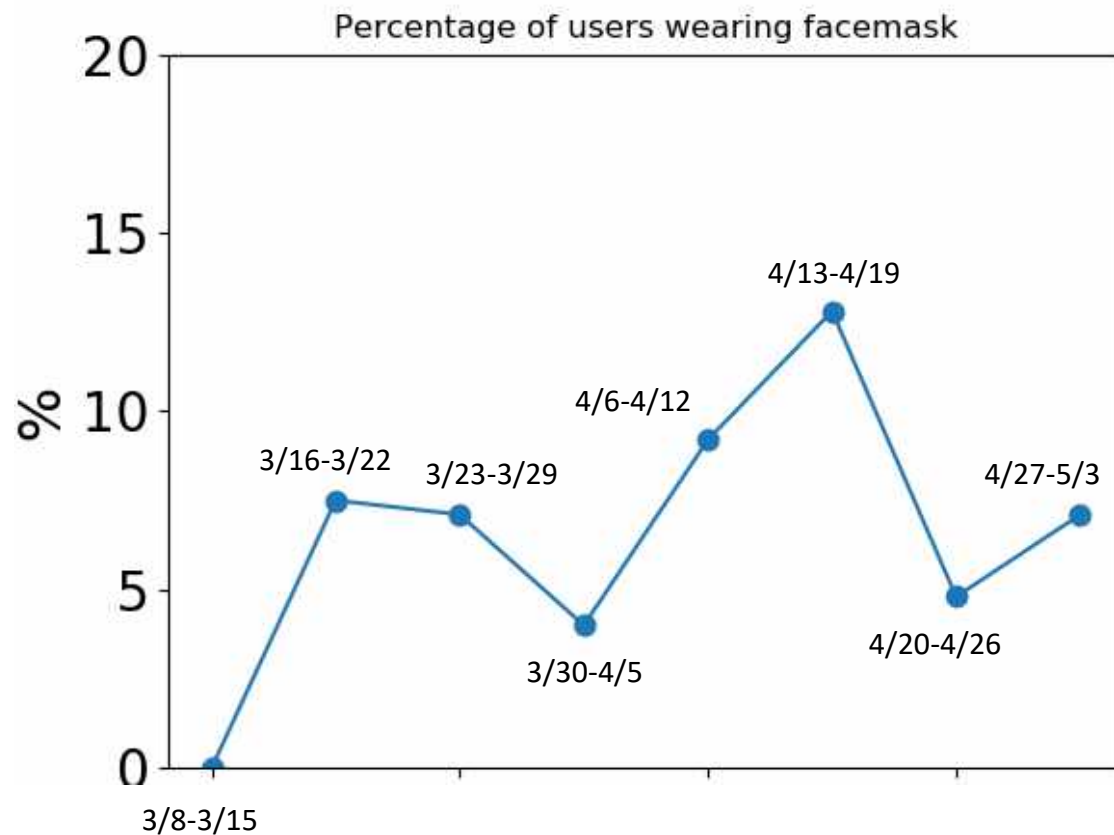




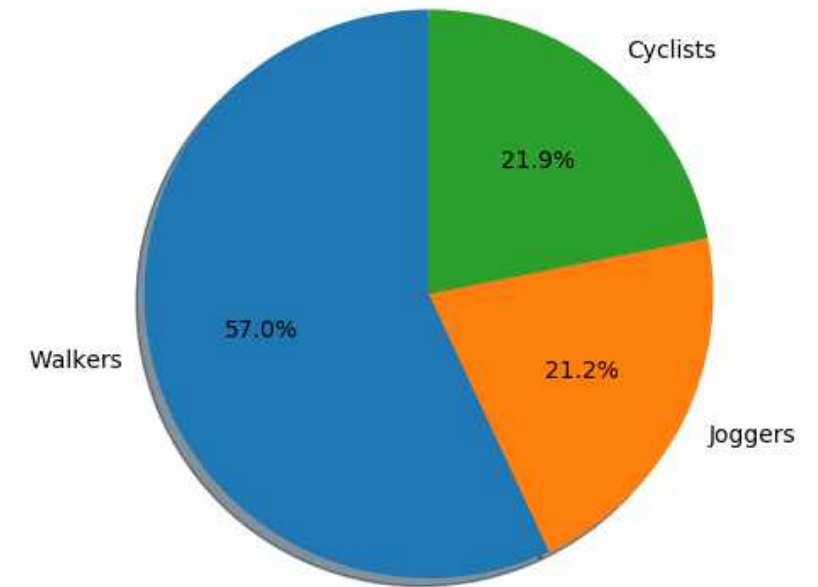
Evening



TOOLS DURING THE PANDEMIC



Who is wearing the detected masks?



A photograph of a person walking away from the camera through a greenway area. The person is wearing a light-colored shirt and pants, and is carrying two white plastic bags. They are walking on a path that is partially paved and partially covered with grass and weeds. To the left is a brick building with multiple windows. In the background, there is a fenced area with a small white guardhouse and some trees. The sky is clear and blue.

ARCHER GREENWAY



STOP

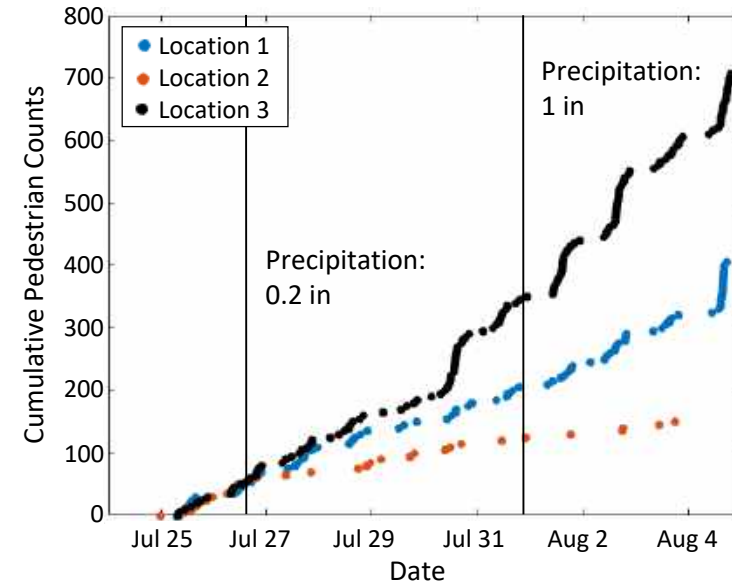
NO
MOTOR
VEHICLES

EMERGENCY

JOS CAMPAU GREENWAY - 2019



Jos Campau Cut



Source: Katherine Flanigan

Location 2

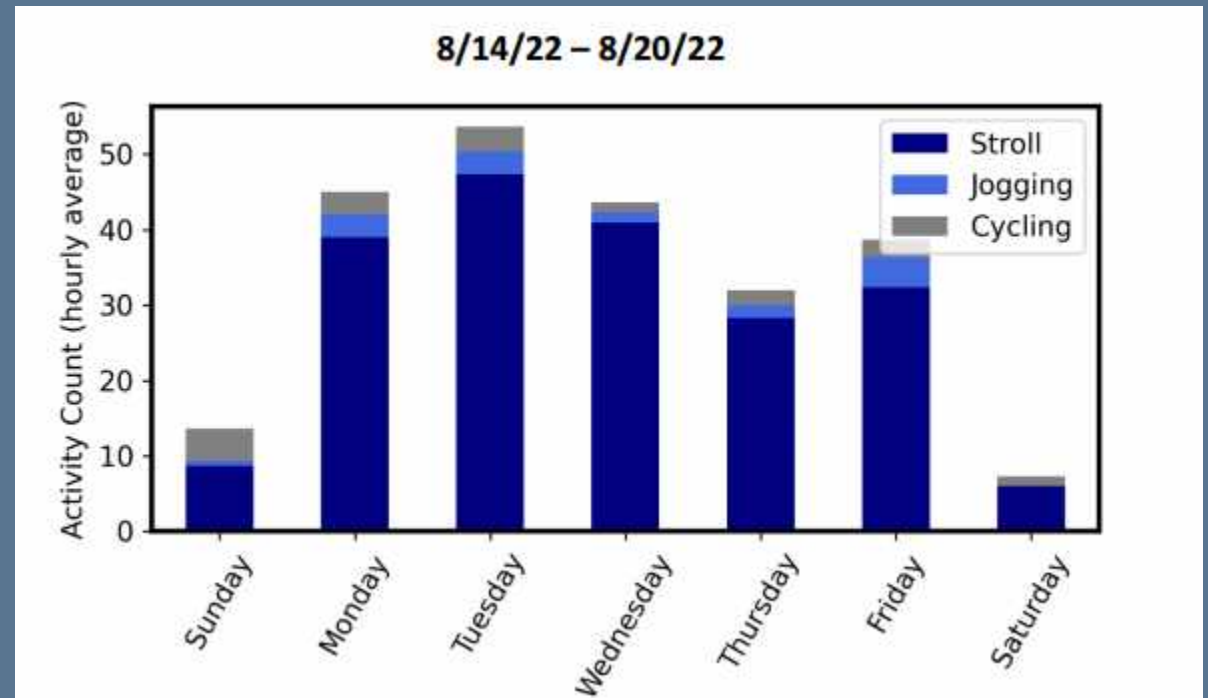
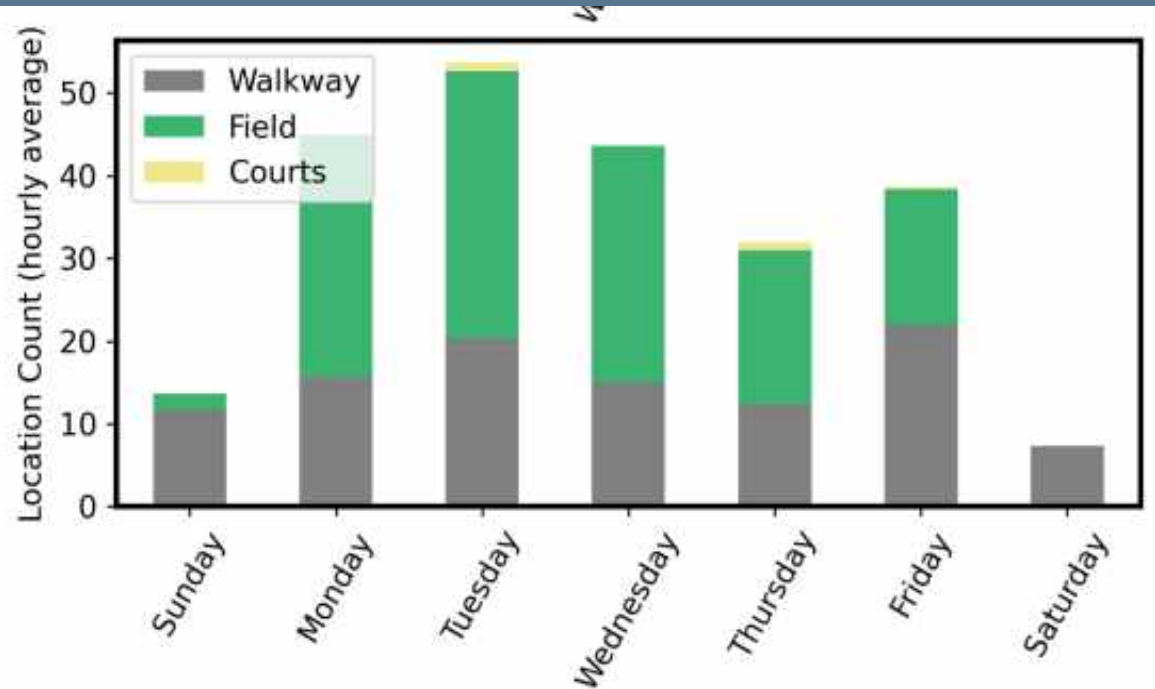


Source: Katherine Flanigan

Location 4



ARCHER GREENWAY + UM DATA



INTERVENTIONS

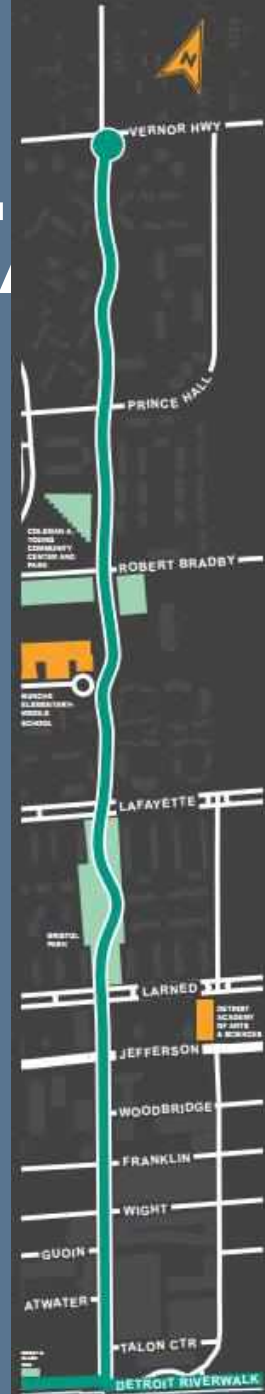




Greetings from the
**MAYOR DENNIS W.
ARCHER GREENWAY**



**DETROIT
RIVERFRONT
CONSERVANCY**

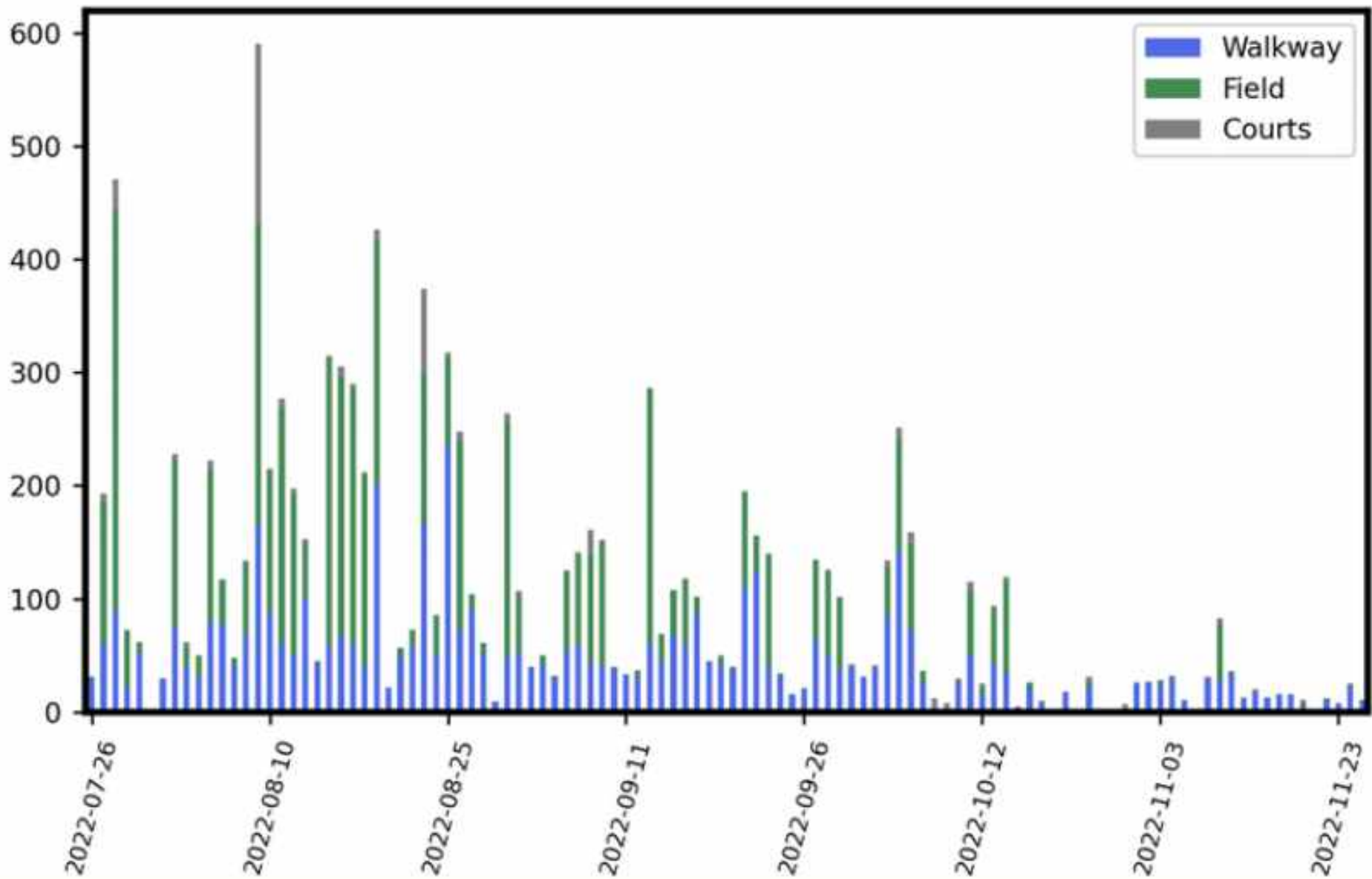




Detroit Riverfront

83K followers • 394 following





Ice cream:

Walkway 14 days prior: 695 patrons

Walkway 14 days after: 1057 patrons

52% increase

Mailer:

Walkway 7 days prior: 270 patrons

Walkway 7 days after: 298 patrons

10% increase

BUILDING A SOCIABILITY FRAMEWORK

Movement layer: Stroll, Jog, Standing, Sitting (w/ dog/stroller), cyclist

Location/furniture layer: Dining, Plaza, Bench, Bike lane, river view fence, fountain, etc.

Social layer: Passive, Fleeting, and Enduring relationships

Social Activity report:

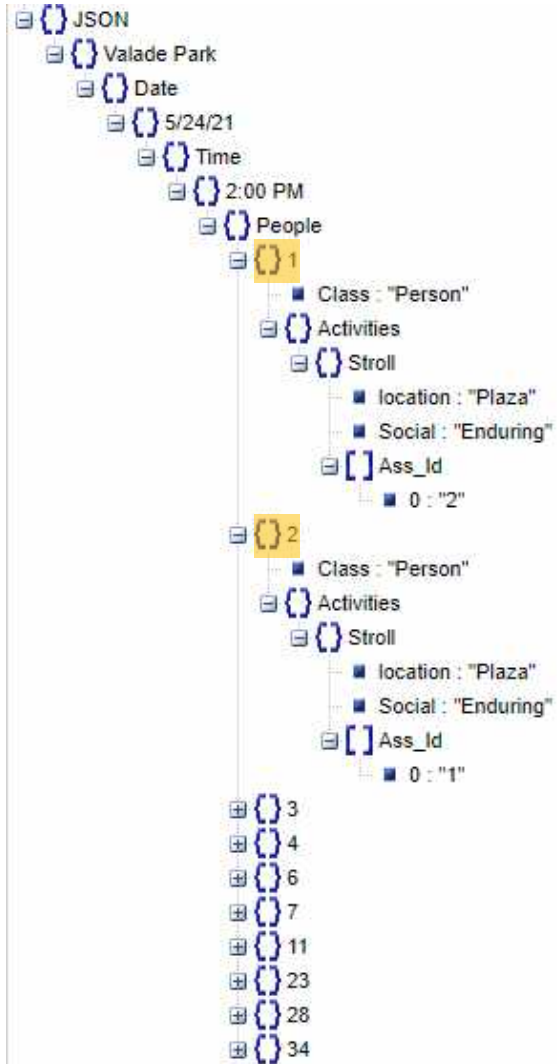
ID4: Enduring stroll in Plaza (with ID 3)

ID1: Enduring sitting in dining area (with ID 2)

ID6: Passive stroll with dog in Plaza



MEASURING SOCIALIBILITY





What we've learned

- Find a good research partner or service
- Ask big questions
- Physical counts vs Social counts
- How data explains the importance of parks



THANK YOU



DETROIT
RIVERFRONT
CONSERVANCY

Thanks for joining us!

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