CONNECTED DMV

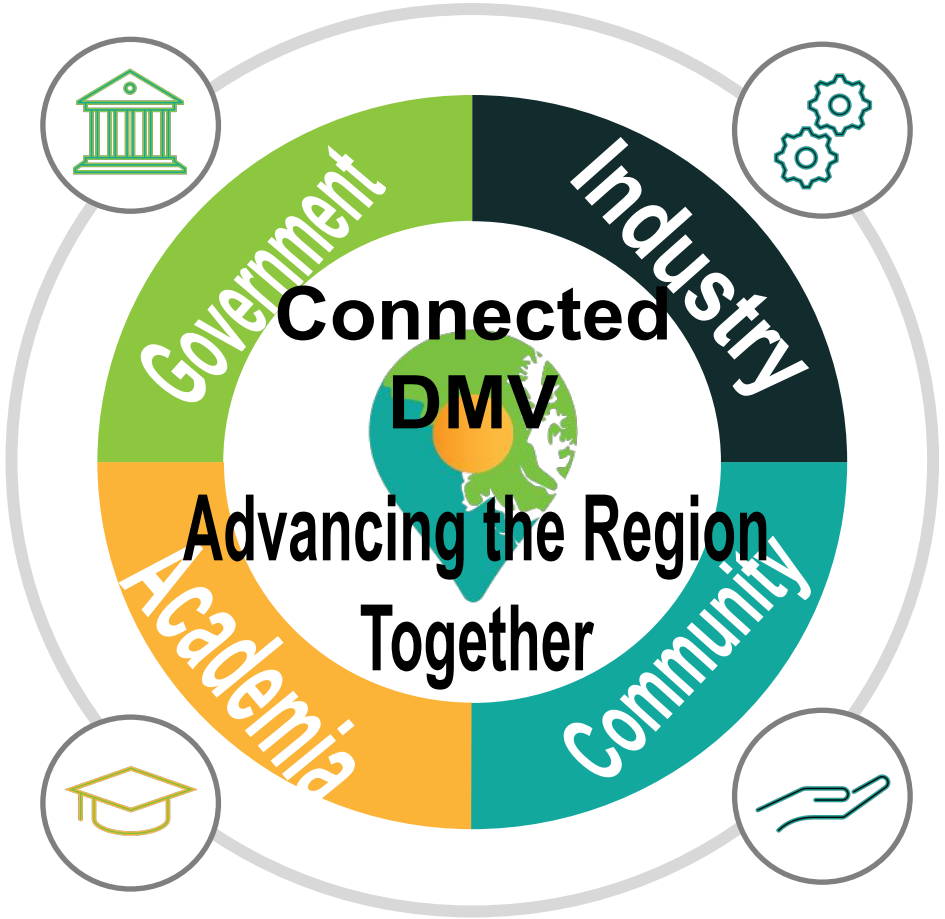
A Visualization Tool and Assessment Framework for Civic Technology Use in the DMV Area: The Case of 311 Systems During the COVID-19 Outbreak

April 2021

Topics for Discussion

- Connected DMV
- NSF CIVIC Innovation Challenge
- Case Study: Boston 311
- Value for the DMV
- Expertise
- Community Engagement

What is CONNECTED DMV ?



WE ARE A 501(c)(3) THAT IS:

- Governed by regional leaders
- Breaking down regional silos
- Delivering initiatives and results
- Preparing for the digital age
- Lifting marginalized communities
- Uniting regional organizations
- Gaining momentum

Founding Organizations

GREATER WASHINGTON Board of Trade

Metropolitan Washington Council of Governments

Consortium of Universities of the Washington Metropolitan Area

metro

Project Approach

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NSF funds and cross-jurisdictional engagement will enable us to:

- **Engage** with jurisdiction leaders to understand their experience in using civic technology to deliver non-emergency issue management services (e.g., 311)
- **Partner** with DMV jurisdictions to evaluate ways 311 programs and services can benefit communities more equitably
- **Create** a collaboration/assessment framework that can promote collaboration across the DMV for non-emergency civic issues
- **Analyze** DMV 311 (or similar) data sets using AI and statistical methods to understand how residents use civic technology, and find ways to improve services delivered, increase equity, and optimize costs
- **Co-Produce** an online visualization & playbook that highlights commonalities, gaps, constraints, discrepancies, and best practices – for an actionable assessment framework for non-emergency civic issue management (over time)

Expertise

Dr. Myeong Lee

George Mason University

- Community data analytics, AI for social good, Geo-data visualization, Theories of information access
- Leading the NSF 311 Project for Boston; Data Science for Social Good Fellowships

Dr. Susan Winter

University of Maryland

- Information systems for organizations, data-driven computational science, socio-technical systems
- PI for the NSF 311 Project for Boston; Former NSF Program Director

Dr. Kathleen Pine

Arizona State University

- Human-Computer Interaction, Qualitative research methods, Health Informatics, Social ecology of technology and organizations
- Lead researcher for NSF award on data work in healthcare; Public Impact Awardee at UC Irvine

Dr. Brian Louis Levy

George Mason University

- Sociology, Inequality, Poverty, Mobility, Neighborhood, Community and Urban Sociology, Quantitative Methods
- Postdoc at Harvard, NIH/NICHD Ruth L. Kirschstein National Research Service Awardee

NSF-Funded Project on Boston 311

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Key Findings:

- Neighborhood income levels drive resident's 311 reporting behavior, and subsequently services delivered
- 311 reporting patterns drive the kinds of civic issues that are detected and resolved
- Data-driven 311 management improves government efficiency, but typically did not reduce inequality
- Currently evaluating the changing needs based on new 311 requests (COVID-19 pandemic related)

We will build upon our team's direct, recent experience with Boston's 311 program to deliver valuable results for the DMV

Value Proposition for the DMV

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Key Regional 311 Service Elements

Location (Geographic)

Mode (Centralized / Distributed)

Type (Kind of Service)

Level (Depth of Service)

AI-Powered Analytics & Visualization

Impact of Optimized 311 Services

- ✔ **Reduce burdens** on emergency systems (911, hospital EDs, etc.)
- ✔ **Improve efficiencies** in non-emergency civic issue management (e.g., mental health issues)
- ✔ **Lower costs** associated with deployed community technology
- ✔ **Improve equitable response** to residents' evolving needs in real-time
- ✔ **Continually align** services based on evolving resident demand
- ✔ **Increase regional collaboration** in assessing the performance of civic tech

Next Steps & Engagement

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- Phase 1 (Mar-Apr) – We are working on:
  - Align and partner with 311 (and 911) leadership in the jurisdictions
  - Hold conversations (1 hr commitment) to co-develop the project's final scope, in order to:
    - **Better understand** each jurisdictions' services, metrics provided and desired outcome improvements
    - **Access 311/non-emergency data sets** via data agreements
    - **Access reporting data on emergencies** (as applicable, and headless) to understand and improve the balance between 311 and 911 programs
- Phase 2 is to implement the scope defined above (subject to approval and follow-on grant from NSF)

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