



Choices and Challenges

Self-driving Cars in the New River Valley

Date: Thursday, April 4th 2019

Location: Inn at Virginia Tech

* Cascades and Drillfield (Technical plenary & Roundtables)

* Lower Quad (Poster session)

* Assembly Hall (Main panel & Community dialogue)

This event seeks to explore the choices we still face and the challenges raised by the potential presence of self-driving cars on our roads and in our lives. While most thinking about and planning for self-driving cars has focused on urban environments, the New River Valley's mixture of small town and rural communities offers a unique opportunity for exploring a range of questions. Will these vehicles interfere with our privacy? Are they safe, for passengers, pedestrians, bicyclists, and others? Will they undermine existing public transportation options, or expand public transportation into new communities? Will they increase or decrease transportation accessibility for poor communities, the elderly, and the disabled? Will they shift patterns of vehicle ownership? Will they improve traffic or create new problems? Will they require new regulations, and if so, by whom and of what sort? Are they ultimately good or bad for our environment, our communities, and our personal lives? Our Choices and Challenges forum will bring together internationally-recognized experts and the public to discuss these and other important questions.

This forum is
open to the
public at no
charge

The Choices and Challenges forum is supported by the Department of Science, Technology, and Society (STS), the College of Liberal Arts and Human Sciences (CLAHS), Intelligent Infrastructure for Human-Centered Communities Destination Area (IIHCC DA), SAFE-D UTC, Office of the Provost, Integrated Security Destination Area, and Policy Strategic Growth Area.



LIBERAL ARTS AND HUMAN SCIENCES
SCIENCE, TECHNOLOGY,
AND SOCIETY
VIRGINIA TECH.

Program Overview

The Inn at Virginia Tech
901 Prices Fork Road
Blacksburg, Virginia

1:00-2:00 pm Technical Plenary

2:00-2:15 pm Coffee Break

2:15-3:30 pm Roundtables

3:30-3:45 pm Coffee Break

3:45-5:00 pm Roundtables

5:00-6:00 pm Dinner Break

6:00-8:00 pm Main Panel

8:00-8:15 pm Break

8:15-9:00 pm Community Dialogue

Choices and Challenges on the web

candc.sts.vt.edu

You'll find additional content, links to more resources, and opportunities for follow-up discussions.

Directions: From I-81, Exit 118B, take the 460 bypass to Blacksburg. Exit at Prices Fork Road toward Downtown. Travel about a half mile, then turn right on University City Blvd and Price Fork Road intersection.

Free parking is available in the guest parking lots at the Inn at Virginia Tech.

BACKGROUND SESSIONS

1:00 pm – 3:30 pm

Cascades and Drillfield

Technical plenary **Cascades**

The technical aspects of self-driving cars

Moderator

Miguel Perez — VTTI

Discussants

Chuck Green — Independent Consultant

Michael Avitabile — TORC

Charlie Klauer — VTTI

Andy Schaudt — VTTI

Tammy Trimble — VTTI

Roundtable **Cascade A** **Data security, privacy, maps, and algorithms**

Data security; hacking; algorithms; mapping & GPS in rural areas

Janine Hiller — Finance, Insurance, and Business Law

Randy Marchany — Information Technology Security

Roundtable **Cascade B** **Equity and social disparities**

Impact on vulnerable communities; affordability; power relations and differentials

Marcia Davitt — STS

Ellington Graves — Sociology

Roundtable **Drillfield** **Regulation, liability, and governance**

Governance of technology; liability; accountability; regulations; legal landscape

Todd Schenk — School of Public and International Affairs

Thomas Skuzinski — Urban Affairs and Planning

Lee Vinsel — STS

BACKGROUND SESSIONS

3:45 pm – 5:00 pm

Cascades and Drillfield

Roundtable **Cascade A** **Mobility and accessibility**

Accessibility; mobility; impacts on people struggling with independence; groups with special needs

Barry Miller — The Biomechanics Helmet Lab

Roundtable **Cascade B** **Infrastructure: transportation, pedestrians and roads**

New/transformed infrastructure and habitat changes; ecological impacts; infrastructure resilience in the context of shifting weather patterns; infrastructural promise and needs

William Christopher — VTTI

Tracy McElroy — IIHCC DA

Roundtable **Drillfield** **Values, culture, and choice**

Social/cultural/political impacts; modes of development; values embedded in systems; politics of self-driving cars development and choices over time; affect and experience; local choices with global impacts

Marcia Davitt — STS

The background discussions are led by the Virginia Tech Transportation Institute, the Department of Science, Technology, and Society, and the following University Destination and Strategic Growth Areas: Intelligent Infrastructure for Human Centered Communities, Integrated Security, Equity and Social Disparity in the Human Condition, Policy, and Adaptive Brain and Behavior.

1:00 pm – 5:00 pm
Poster session
Lower Quad

Main Panel

6:00 pm — 8:00 pm
Assembly Hall

Moderator

Lee Vinsel

Assistant professor in Science, Technology, and Society at Virginia Tech

Panelists

Ronald Arkin

Regents' Professor and Director of the Mobile Robot Laboratory at Georgia Tech. His research interests include behavior-based reactive control and action-oriented perception for mobile robots and unmanned aerial vehicles, robot survivability, human-robot interaction, robot ethics, and learning in autonomous systems.

Meredith Broussard

Data journalist and an assistant professor at the Arthur L. Carter Journalism Institute of New York University. Her academic research focuses on artificial intelligence in investigative reporting, with a particular interest in using data analysis for social good.

Giovanni Circella

The Director of the 3 Revolutions Future Mobility Program at UC Davis, and a Senior Research Engineer at Georgia Tech. His research interests include emerging transportation services, autonomous vehicles, and policy analysis.

Tabitha Combs

Team members at NC State University's Institute for Transportation Research and Education. She has expertise in transport and land use planning, equity impacts of new mobility innovations, and transport planning in developing contexts, with a particular focus on social and environmental impacts of transport policies.

FOLLOW-UP SESSION

8:15 pm — 9:00 pm

Community dialogue Assembly Hall

Build conversation among community members and local representatives of government and community organizations. Share your thoughts regarding self-driving cars in the New River Valley.

Moderator

Tracy McElroy — IIHCC DA

Wenwen Zhang — Urban Affairs and Planning

NEXT YEAR'S CHOICES AND CHALLENGES FORUM

Choices and Challenges in Spring 2020 will focus on Technology and Disability. With public conversation led by disabled activists and scholars, we invite the community to revise what they know about infrastructure and cyborg bodies. We'll look at the relation between infrastructure and cyborgs, how attitudes shape the landscape of our conversations, and media representations of disability technologies.

The Choices and Challenges Project

Co-directors

Saul Halfon, Lee Vinsel

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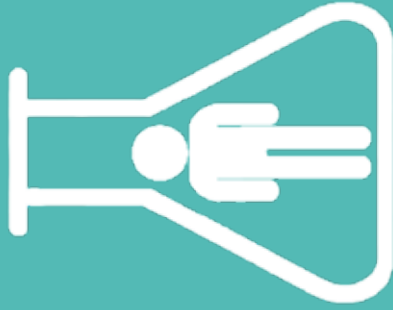
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Self-driving cars

in the New River Valley **April 4, 2019**

A Choices and Challenges Forum

