WASHTENAW COUNTY

CONSENSUS CONFERENCE ON AUTONOMOUS VEHICLES

CASE STUDY

A PARTICIPATORY PLANNING EXERCISE
SPRING 2018

Acknowledgments

This event was sponsored by The University of Michigan Library Mini-Grant and ESPA (Engaging Scientists in Policy & Advocacy) student organization.

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Executive Summary

This spring, students from the University of Michigan organized an opportunity for community members to learn about and voice their opinions on a potentially society-altering technology— autonomous vehicles (AVs). This type of event, called a consensus conference, enables the public to contribute to the discussion around technologies that impact their lives. To better understand the impact AV has in our community we looked beyond industry experts to those who will be most impacted—the community members themselves.

The majority of consensus conference case studies currently available reference conferences that had large budgets and access to human resources. Also, in the United States consensus conferences traditionally focus on environmental issues. In contrast, we ventured to convene a consensus conference to address a sub-topic of artificial intelligence with limited resources. This report outlines in detail how we organized our consensus conference. We critique specific aspects of our conference referencing other case studies and academic literature. This report also aims to bring complete transparency to the final *Official Statement*, available [here](#)[i]

Our results show that citizens from a variety of backgrounds can come together to learn about a technology and discuss suggestions for community leaders. The *Official Statement* from this conference has already captured the attention of local policy makers and we believe will act as a resource as our community moves forward with the introduction of AVs to Washtenaw County streets. We also found that to organize a more empowering consensus conference, it is important that the citizen panelists have time to engage with experts on the topic in a method that facilitates mutual learning and sharing of ideas, as opposed to one-way reporting.

1. Consensus Conference History & Use

Consensus conferences are a form of participatory planning used to engage lay citizens in science and technology policy discourse. The citizen panelists act as "value consultants."[ii] Lay people make better value consultants than traditional experts because they have a broad range of life experiences that experts omit and they are less subject to interest group politics.[iii]

The method was first pioneered in Denmark in the mid-1980's. Consensus conferences bring a diverse group of 12 to 15 citizens together over three or more days to discuss a high-profile technical matter and to compose an official statement.[iv]

Traditional consensus conferences have several components. They start with a steering committee charged with selecting a diverse group of citizens from the set of applicants who express an interest in participation and are not topic experts. Background material is generally provided as preliminary preparation. Initial preparation is followed by three formal meetings, each often lasting a day or more. The citizens initially gather to discuss the questions generated by the readings and their initial excitement and concerns regarding the technology. At the second session, citizen panelists deliberate with a group of experts to gain insight into their questions. At a final session, the citizen panel meets to draft a report on their findings and recommendations. Generally thereafter, a press conference is held where the report is released to reporters and governmental officials.[v]

Three groups traditionally frame Science and technology policy in the United States: business, military and academia. These are the groups that testify at congressional hearings, serve on advisory boards and prepare reports that influence science and technology policy.[vi] With the exception of under-publicized public comment periods, participatory mechanisms are not built into most governmental policy-making processes.[vii] Also the nature of science and technology discourse makes it harder for citizens to engage on science and technology issues when compared to other political issues, especially those that are more immediate and less futuristic.[viii] Evidence, however, shows that citizen panelists are capable of distilling what they have heard and arriving at a set of shared values.[ix]

As of 2015, Washtenaw County had a poverty rate of 14.2%, and 26% of the population identified as non-white.[x] Universities often lack formalized ways to engage the surrounding communities in popular research topics, feeding a growing divide in this country. Consensus conferences can start to bridge the gap between formal research and the greater community that is impacted by that research. It adds the voices of everyday citizens to policy discourses that are typically monopolized by experts, their powerful sponsors and the filtering process of the mass media.[xi] Consensus conferences also increase the participants' knowledge of and ability to participate in discussions regarding advanced technology.[xii]

2. Objectives & Criteria

The facilitation team identified several goals and criteria for success: the quality of the deliberative processes (specifically the abbreviated form of the traditional consensus conference model), diversity of participants, citizen empowerment and impacts on policy and public debate.

To measure our success on these objectives we asked the following questions on a Likert scale 1 (strongly disagree) to 5 (strongly agree) after each meeting and noted changes from meeting to meeting.

- A group of citizens with diverse backgrounds can agree on recommendations for how policy makers should address a new technology
- I am confident enough in my understanding of autonomous vehicles to participate in civil discourse on the topic
- I have gained insights from my fellow citizen panelists (Meeting One & Three)
- I have gained insights from the expert panelists (Meeting Two)
- I feel like my voice was heard

We also asked the following qualitative questions:

- What worked well about today's session?
- What could be improved for future sessions?

Questions were answered anonymously. To keep each participant's feedback throughout the process together, we stored the responses in an envelope with the participants name on it. After the last meeting, we stapled the surveys together and threw away the envelopes. The results from this feedback are mentioned throughout the process description below and in the overall findings.

3. Planning Phase: Issues Considered

Throughout the planning process we strived to follow the best practices regarding democratic processes and participatory planning. This section aims to bring transparency to our decision-making process and references existing experience in the field.

Conference Staff (Steering Committee)

In the Danish consensus conference model, once a topic is selected, the board chooses a well-balanced steering committee to oversee the organization of the conference. A typical committee may include an academic scientist, an industry researcher, a trade unionist, a public-interest group representative and a project manager from the sponsoring organization.[xiii]

In the United States, organizations such as the Jefferson Center[1] organize an advisory committee at the beginning of every project. In both cases the role of the committee is to be

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[1] *Jefferson Center – unleashing the power of citizens by teaming up with nonprofits, universities, governments, and others to design and implement innovative, democratic solutions to today's toughest challenges.*

[2] *Michigan Library Student Mini Grants – Students can receive up to $1000 to support*

on alert for bias in the project and planning process, to provide input on the charge, oversee session facilitation and recruit the citizen and expert panelists.[xiv]

The *Washtenaw County Consensus Conference on Autonomous Vehicles* was not instigated by an existing organization, but rather by a group of students who had taken *Science & Technology Policy* at the University of Michigan Ford School of Public Policy. This made assembling a well-balanced team of experts to form a proper steering committee difficult. Instead we decided to research the technology ourselves with a constant eye toward finding the most diverse and objective views on the topic. To assist with the meeting facilitation plans, we enlisted two experienced pro-bono consultants: Andrew Rockway, *Jefferson Center* and Brianna Besch, *Returned Peace Corps Volunteer & Community Development Expert.*

A few months into the event planning we received sponsorship from a new student organization, Engaging Students in Policy & Advocacy (ESPA). They provided invaluable volunteer support throughout the events, as well as funding (discussed below). The lack of a formal steering committee resulted in challenges recruiting and engaging key stakeholders in the expert panel (discussed below).

Securing Funding

European consensus conferences have typically cost between $100,000 and $200,000. Some of this reflects the fact that they are nationwide, requiring organizers to pay for participant transportation and lodging.[xv] The 1997 Loka Institute *Citizen Panel on Telecommunications and the Future of Democracy* in Boston cost $60,000.[xvi] The Jefferson Center estimates a similar amount for a 5-day local conference, with the largest expense being staff time at $25,000.[xvii]

It was clear early on that our project would be low budget and volunteer led. The initial round of funding was a $1,000 mini grant from the University of Michigan Library in November 2017.[2] They selected our project in November and have offered one-on-one research support including access to community databases and trainings.

The library grant was not able to cover all of our needs especially for food and refreshments at the public event. Fortunately, ESPA decided to sponsor the conference both financially and with critical volunteer support. The total costs came to $1,563 (Full Budget in **Appendix A**).

The facilitation team was able to organize the conference without any paid staff or moderators in part due to Anna Lenhart's prior facilitation training from her career working at Shakti Rising, a community organization in San Diego. And while her training

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[2] *[Michigan Library Student Mini Grants](#) – Students can receive up to $1000 to support innovative and collaborative projects that make a real-life impact. Projects must strengthen community partnerships, enhance global scholarship and/or advocate for diversity and inclusion.*

was not in participatory planning, the project consultants helped her transfer her skills in facilitating women's empowerment to facilitating community dialogue.

The limited capacity resulted in some aspects of the conference receiving more attention than others. For example, we needed a dedicated person responsible for attracting media attention. Better media relations would have likely resulted in more citizen panelists' applications, better attendance and more public awareness of the *Official Statement*.

The limited budget also meant we could only offer $15/meeting stipends (in addition to meals). According to the Jefferson Center, the typical amount is $100 a day, with the intention being to help defray some costs while also incentivizing participation. Offering the larger stipends at the end of the final day can also decrease absenteeism, which was a challenge in our conference.[xviii] Due to this dismal compensation, we could not suggest participants give up weekdays or even a full weekend day, limiting us to three Saturday morning meetings. This amount was also not sufficient for citizens who work hourly wage jobs on weekends. It is likely our stipend amount contributed to a panel with higher levels of academic attainment then the county at large.

The funding constraint also meant we could only use local experts. We could not afford to fly in experts from other parts of the country. Fortunately, most AV experts are concentrated in Southeast Michigan, but travel funds for experts would have increased the options especially for female and ethnically diverse professionals.

Selecting the Focal Issue for the Consensus Conference

The following considerations were made in selecting AV as the final topic:

1. **A topic the steering committee cares about**: Whatever topic that is chosen will require extensive research, therefore it needs to be interesting to the committee. Our committee was interested in the future of work and the rise of AI and therefore wanted a topic that was at least tangentially related to technological unemployment.
2. **Intermediate in scope:** We knew the topic needed to be broader than job loss from autonomous trucks but narrower then comprehensive review of artificial intelligence issues.[xix]
3. **A topic that is timely and of interest to policymakers**: Michigan currently has the most progressive policy for AVs and because of the two testing centers in the area, Washtenaw County looks to be one of the first regions in the country to have AVs on the streets interacting with citizens.
4. **Available experts in the region**: Many of the leading experts regarding AVs reside in Southeast Michigan. Specifically, Mcity, a conglomerate that brings together

partners from industry, government and academia *to develop the foundation for an ecosystem of connected and automated vehicles* resides on campus.[3]

Determine the Charge

The *charge* is the specific set of questions the citizen panelist will answer in their official statement. Our charge was inspired by the charge that Jefferson Center used during their 2002 citizens jury on Global Climate Change.[xx] Our final charge was written on the agenda at every meeting: *what potential challenges or opportunities associated with AVs are most notable or of most concern? In your opinion, what steps, if any, should be taken to prepare the community for AV use?*

Location

While securing a location for the conference, we tried to balance several requirements. Due to our limited budget, a low-cost or free location was necessary. We also needed access to audio-visual equipment, ample parking and a location that was handicap accessible. Given our affiliation with the University of Michigan, a campus facility seemed the most obvious. However, it was really important that this event was distinguished from the numerous AV presentations on campus, which are often framed by researchers and industry. The University of Michigan also has a reputation for cutting edge science and technology research and therefore does not seem capable of providing an impartial venue for a discussion that is open to criticizing technology.[xxi] The university's "elite" status and architecture can also be intimidating.[xxii] Therefore we chose to host the first two meetings at the Ann Arbor Downtown Public Library. The library is located next to a mass transit center and multiple parking garages, making it accessible to people throughout the county.

The first meeting was held in Conference Room A, which comfortably held all the panelists, a table for refreshments and had wall space for easel pad sheets. Two challenges did arise with the location 1) the building did not open until 9:00am and would not allow people to enter beforehand. It was cold on the day of the meeting and we had set a 9:00am start in an effort to get people out by noon. Citizens arrived early or on time and were forced to wait outside in the cold; this made for a rough start to the event. 2) The conference table was an oblong oval, which made it hard for citizens to connect with their fellow panelists on the other end of the table. We received feedback that a circular setup may have been better.

The second meeting, the public expert panel, was held in the Multi Purpose Room. The room was set up with a stage that had a table and chairs for each expert. In front of the stage were rows of chairs for up to 100 attendees. The first row was reserved for the citizen panelists; the remainder was for the general public. The room did not come with audio-visual equipment so we lent microphones and an amplifier from the Ann Arbor

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[3] *[Mcity](#)- home to world-renowned researchers, a one-of-a-kind urban test facility, and on-road deployments. Here, industry, government, and academia come together to improve transportation safety, sustainability, and accessibility for the benefit of society.*

Downtown Library. There were two table microphones and one moving microphone, which was used by the moderator. There were a few challenges with this location, mostly because the setup was not conducive for bridging experts and citizens. The experts were on a raised stage, above the citizens' panel as opposed to being on the same level. Also, the citizens' panelists were not seated at a table and while they were given clipboards to take notes, we received feedback that tables would have been better.

We hosted the third meeting in a conference room at the Ford School of Public Policy on campus. We wanted the option to use the computer lab and wanted a conference room that also had a projector so that the report and changes could be viewed and discussed in real time. The major challenge with this location ended up being parking. Normally on Saturday mornings parking in the area is easy to find; there are meters and we had prepared to give the citizens quarters when they arrived. Prior to setting the date for the third meeting we checked the university calendars but overlooked the community calendars. Unfortunately, the date collided with a community festival on the same block as the Ford School and all the parking spots were taken. The event started 30 minutes late as the facilitators rushed around looking for spots and citizens parked up to a half mile away and had to walk. This incident may have been avoided by having a local Ann Arbor resident on the steering committee.

Logistical Considerations

Because we were not able to offer a substantial stipend, it was imperative that we offer extra support for childcare and transportation. During onboarding we asked participants if they would need rides or childcare, none did, it also helped that the Library was located next to the mass transit hub as not every citizen had a vehicle. A few citizens had dietary restrictions, which were considered when food was purchased for each meeting.

Facilitation

Facilitators play a key role in ensuring that the citizen panelists reach a fair outcome and that participants feel empowered. The facilitators need to have a clear understanding of the charge and how to get citizens' responses to the charge.[xxiii] Facilitators are also responsible for moving discussions along to cover all necessary points.[xxiv]

Ideally an experienced facilitator is hired separately from the organizing committee. This was our original intent. We reached out to the leading participatory planning professors on campus and organizations such as *Change it Up[4]* and *Center for Research on Learning and*

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[4] *[Change It Up](#) - brings bystander intervention skills to the University of Michigan community for the purpose of building inclusive, respectful and safe communities. It is based on a nationally recognized four-stage bystander intervention model that helps individuals intervene in situations that negatively impact individuals, organizations and the campus community.*

Teaching[5] to ask for experienced facilitators and offered a small stipend. The only response we received was from Julia M. Wondolleck, an Associate Professor at the School for Environment and Sustainability, who agreed to meet with Anna Lenhart and ensure that she knew which principles of community dialogue to include and focus on through the process. She also suggested that Alana Podolsky, a former student of hers and a student in the Master of Public Policy program join the facilitation team given her understanding in facilitation of democratic discussions. Dr. Wondelleck's advice and Alana's membership on the facilitation team proved invaluable.

The conference consultants suggested that the facilitation is more about the preparation and curriculum than *who* is actually leading the discussion. In the end, the steering committee also served as the facilitation committee. It is hard to say what breaking this best practice meant for our results, but overall the feedback for facilitation was very positive throughout the conference, with citizens often referencing the well-organized curriculum and attentive, minimally biased facilitators.

Time Allotted for Conference and Conference Preparation

From the time of inception in September 2017 to the date of this report and continued dissemination of results, this process took about one year. The time for each meeting with participants was extremely abbreviated compared to traditional consensus conferences, specifically the expert panel (overall expert engagement). Time from the beginning of citizen recruitment to the final meeting was 5 months. This timeline is consistent with other US-based consensus conferences.[xxv]

The citizens were only able to convene for three Saturday mornings spanning from February to April. This limited time was a constraint, but given the limited stipend funds available, asking for more time would have decreased the diversity of the participants.[xxvi] We also decided to leave a few weeks between each Saturday meeting to allow time for the facilitators to integrate the citizen panelists' feedback and suggestions.

September-November: Steering Committee Preparation

- Finalized topic and scope: Autonomous Vehicles in Washtenaw County
- Began researching the issues and perspectives currently discussed by leading AV experts and stakeholders
- Secured funding & venue

December- January: Phase 1, Citizen Recruitment & Onboarding

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[5] *Center for Research on Learning and Training (CRLT)* - *At CRLT, we work every day with instructors who are committed to engaging their students actively both inside and outside the classroom.*

- Designed and disseminated application for citizen participation
- Selected a representative group of citizen panelists
- Provided the citizen panelists with a timeline and responsibilities
- Provided citizen panelists with background readings and media on AV

February: Phase 2, Meeting One- Background Discussion

- Finalized facilitation team and curriculum for meeting one
- Hosted meeting one on Saturday Feb 17th 9:00am- 12:00pm

March: Phase 3, Meeting Two- Public Expert Panel
- Recruited experts based on topic list from meeting one
- Onboarded experts
- Purchased refreshments
- Prepared and approved moderator questions
- Hosted meeting two, March 24th 9:30am- 1:00pm

April: Phase 4, Meeting Three- Report Writing

- Drafted initial report based on first two meetings
- Facilitated meeting three, April 7th 9:00am- 12:00noon
- Formated final report and publish to public website

April – August: Phase 5, Dissemination

- Published press releases and disseminated reports
- Met with local policy makers
- Analyzed citizen panelist survey results and published case study

4. Specific Mechanics of the Consensus Conference

Our conference consisted of five phases, each with their own role in reaching the goals outlined in Section 2 of this report.

Phase 1: Participant Recruitment and Selection (December 2017- January 2018)

Goal of Phase: Inform members of the Washtenaw County community about the opportunity to participate in the conference and facilitate a fair selection process to maximize diversity.

The application to participate included questions specifically designed to provide the steering committee with information to select a diverse and representative panel. As seen

in **Appendix B**, questions included demographic background, occupational history, interest in participation and opinions on both AVs and civic engagement. [xxvii] The application was available on the event website and was hosted through Qualtrics, trusted to keep the applicants' private information secure. In an effort to include participants who are not comfortable entering private information online we included a paper application, which could be printed and mailed to a PO box; this option was not used.

We encouraged citizens to apply in the following ways:

1. We designed Facebook ads targeted to residents of Washtenaw County over the age of 27 (we did not want a large number of university students to apply, as the focus was community members). We also attempted to post in every local community Facebook Group. Although not all group administrators responded to our request to make the post public. A few did including: *The Official Ann Arbor Townie* Page and *Ann Arbor YIMBY*.
2. We used the GuideStar database (available to students) to create a list of every non-profit in the county and their listed contact information. We then emailed this list of organizations a request to spread the word about the event and need for participants to their email distribution lists. We are not sure how many organizations did spread the word. We know that CivCity[6] sent it to their list of ~2,000 community members.
3. We reached out to local media outlets including newspapers and radio, but we were unable to acquire pro-bono advertising.

By the end of December, we had 40 applications. The steering committee then reviewed the applications to select 15 panelists. The aim of the steering committee was to select demographically and politically diverse applicants that lack formal expertise in AV. [xxviii] The voluntary application process makes perfect representation impossible, because those who choose to apply are, by nature of their action, motivated and believed that citizen voices belong in the AV policy conversation, a belief that is not necessarily shared by everyone.[xxix]

To assist with representation, the steering committee calculated the ideal number of participants for given categories based on census data (see Table 1). The categories include age, gender, geographic location, race and education (proxy for income bracket). It was important to keep categories limited to 2-4 "buckets" to keep the categories from being too complicated and impossible to satisfy.[xxx] Ideally we would want to have a panel that represents the community's views on AV, however to date there had not been a study/survey on Washtenaw County residents' views on the topic and we did not have time

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[6] *[CivCity Ann Arbor](#) - The CivCity Initiative was founded in November 2014 to tackle a seemingly intractable problem in American democracy: widespread disillusionment and apathy toward government at all levels, and an increasingly toxic political discourse.*

or resources to produce such a study. Therefore, we aimed for mostly neutral with a 50/50 split on positive/negative views toward AV.

As the committee began to review applications, the first priority was hitting the targets outlined in Table 1. In the case of multiple applicants meeting the same criteria, we looked at the applicants' occupations and interest in the topic. When possible, it is good to represent members of the community that look to be disproportionately impacted by the technology. In this case, we looked for people who worked in occupations that depended on vehicles (a paramedic) and elderly or physically disabled.[xxxi] We selected 15 applicants and were close to the targets; unfortunately, four of the selected applicants were not able to participate. The final panel skewed over-educated and from Ann Arbor. Future events should dedicate more resources to expanding the application pool and should select alternates in the case that applicants back out.[xxxii]

Most of the feedback from the citizen panelists was that they were impressed by the diversity of backgrounds and perspectives on the panel. There was some feedback that more young people would have been better and possibly someone from the law enforcement profession. There was also some frustration with the over representation of Ann Arbor residents.

Table 1: Citizen Panelist Targets

Demographic	Washtenaw County Percentage[xxxiii]	Ideal # of Participants	Actual # of Participants
Gender			
Female	**50.5%**	**6**	**6**
Male	**49.5%**	**5**	**5**
Race/Ethnicity			
Caucasian/White	**71.7%**	**7**	**7**
Persons of Color/Multiracial	**18.3%**	**4**	**4**
Age			
18-34	**34.7%**	**4**	**1**
35-54	**26.2%**	**3**	**6**
55 & Over	**39.0%**	**4**	**4**
Ann Arbor / Greater Washtenaw			
Ann Arbor	**32.3%**	**4**	**6**
Greater Washtenaw	**67.7%**	**7**	**5**
Educational Attainment*			
Less than High School	**6.3%**	**1**	**0**
High School or GED	**17.8%**	**2**	**0**
Some College	**22.2%**	**2**	**2**
College Degree	**54.7%**	**6**	**9**
Attitude on AVs			
Positive	**unknown**	**3**	**7**
Neutral	**unknown**	**5**	**1**
Negative	**unknown**	**3**	**3**

*Educational attainment percentages based on number of county residents above the age of 5 years old, not enrolled in school

Participant Onboarding & Preparation

Goal: Ensure citizen panelists understand their role and responsibilities, commitment, and the desired outcomes and have ample knowledge of the topic to begin to express their views.

Once the final group of citizens was selected, they were each called and emailed. The goal of the calls and emails were to:
- Provide an introduction to the process and timeline.
- Answer any questions about the deliverables and how they would be used.[xxxiv]
- Provide transparency about who was organizing and funding the event and in our case emphasizing this was partially a research project led by graduate students.
- Collect information regarding transportation, child care, food allergies or other logistical challenges that would need to be addressed.

Due to the "pilot" nature of our program and low-stipend amounts we did not ask citizens to sign a contract of their responsibilities, we simply insisted that they mark the events on their calendars and verbally commit to attending. In the end, attendance was an issue. 11 citizens attended the first meeting, 9 attended the second meeting while 1 watched the recording and 6 attended the final meeting while 2 submitted comments via email.

Background Materials

The preparation of background materials is standard in the Danish consensus conference model although debated in practice. On one hand, background information helps citizen panelists interact with experts in a fruitful manner.[xxxv] Other experts have found that background materials add a burden on the citizens and that some citizens have the time to dedicate to readings while others do not. Therefore, providing readings risks starting out the first meeting with an uneven amount of knowledge on the subject material, which can lead to divides.

In the Danish model, an expert background paper is commissioned by the board and screened by the steering committee that maps the political terrain surrounding the chosen topic.[xxxvi] We did not have the resources to commission a report; instead the steering committee collectively researched the topic.

Two weeks prior to the citizen panelists' first meeting, panelists received background material on AVs. The packet included 11 pages of reading and 4 media links spanning AV classification, history, technology, safety, mobility, traffic, land use, energy and emissions, liability, and privacy concerns. This list was based on the most popular topics covered by experts and stakeholders but we emphasized that there may be other topics worth exploring.

The aim of this material was to provide an objective overview of the current discourse on AVs. References in the report included RAND Corporation's *"Autonomous Vehicle Technology A Guide for Policymakers,"* Inventivio's *"Driverless Car Market Watch,"* videos from leading AV companies, and the Mcity website.

We put the most important information first and we also blocked out time at the first meeting to re-teach that material because it was the most critical to having a discussion.

There was a mix of feedback on the reading materials. Some citizens wanted more background materials and more points of view and even did some of their own research to fill in the gaps. Others wanted more clarity on the bare minimum they could read given their tight schedules. Most participants expressed enjoying the video content while a few preferred reading. A few participants wanted readings on the specific legislations regarding AV, we did not provide this because we did not feel it was necessary to address the charge but once the citizens brought it up we did invite policy experts to the expert panel.

In hindsight, we should have asked the citizen panelists if they wanted a way to share more resources between the first and second meeting, including those related to policy, but we wanted to be mindful not to pressure people into extra work.[xxxvii]

Phase 2: Meeting One: Background Discussion, February 17, 2018 9:00am- 12:00pm

Goal: panelists will provide the facilitators with salient topics and questions, which will determine which experts the steering committee invites to present.[xxxviii]

The facilitation team spent time together and with consultants to design a curriculum that would introduce citizens to the opportunities and challenges posed by AVs and lead to a list of salient topics that needed expert insights.

Orientation to the Process

We started by orienting citizens to the process and each other. We made it clear that the citizens were the center of the process and encouraged them to push back on the facilitation team if they did not like the path we were taking. We also reviewed the conversation guidelines and procedures and opened them up to citizens for amendment.[xxxix] The conversation guidelines were provided to us from the Jefferson Center (**Appendix C**).

Given the limited time and the un-polarized nature of the AV topic, we suggested that the panel use a majority rule procedure during the first meeting, which would be facilitated by the placement of sticky dots next to preferred topics written on easel pad sheets. The final report writing during meeting three would require consensus with space for dissenting or additional comments.

Orientation to One Another

Following the orientation to the process, we asked the citizens to introduce themselves. The citizens shared their name, where they lived, their occupation, and they answered the introductory question: *How has transportation played a role in your life?* The goal of the introduction question is to get people to share their personal experience without introducing their point of view on the topic. This technique encourages panelists to think of themselves as not only individuals but also members of the same community.[xl] The question was designed to not be too personal or controversial but still provide a bit of unique information. The facilitators answered the question first to set a tone for how long of an answer to give and how to tie it to personal experience without discussing their *stance* on AV, unfortunately citizens did begin to discuss their interest in AVs and the answers began to be answers to the question "what made you interested in this topic and brought you here today?" Regardless, this sharing exercise did facilitate personal connections.

Following introductions, we had a break for food to allow people to connect and discuss

what they heard from one another. As the facilitators meandered the room, we overheard constructive conversations and we believe that these downtime connections helped the group work together throughout the process.

Engage with Background Material

It was important to acknowledge that everyone in the room had engaged with the background material in varying amounts, including the AV definitions. For example, AV research and commentary often refers to the SAE levels of automation (0-5). The opportunities and challenges surrounding AV vary based on level. Therefore, it was important to write these levels on the board and ensure that everyone was comfortable with the terms. It was also important that everyone in the room had a clear understanding of how AVs "see" and make decisions.

We let people ask questions and wrote things that were unclear on easel pad sheets that we could later reference with experts. We only spent 20 minutes on this material because the main point of this meeting was to facilitate discussion on the concerns and opportunities presented by AVs by allowing people to react to the technology from their own experiences.

Dive Into Issues: Individual, Small Group and Large Group

We wanted to facilitate an opportunity for citizens to begin working beyond their individual point of views and to get biases on the table early on.[xli] We asked citizens to spend 6 minutes reflecting on the following questions: *What excites you about a future with AV?* And *what concerns you about a future with AV?* We then split the panelists into three groups of 3-4 and asked them to share what they uncovered in their reflections, *what were the similarities and differences in their responses? And why do those differences exist?* We then gave them 20 minutes to prepare 3-5 opportunities and challenges to report back to the group.

All of the suggested opportunities and challenges were written on easel pads. As citizens shared, the facilitators listened for themes and asked clarifying questions to see if certain issues needed to be broken down further. This discussion was incredibly fruitful and as participants listened to other small group shares, they were better able to articulate topics that their small group had only partially formulated. The final list of opportunities and challenges had 10 major topics with multiple sub-topics/questions listed under each one. To select the areas of focus for the expert panel, we gave each citizen five sticky dots to put next to the topics/questions they thought demanded attention during the expert panel.

The expert panels, held at the Ann Arbor Downtown District Library, were open to the public. Forty people attended and the discussion was live-streamed ([recording here](#)).

Goal: Leverage experts to publicly address topics that the citizen panelists found most notable during the first meeting. These include safety &liability, the AV policymaking process, labor, inequality, and cyber security & privacy.

Assembling and Onboarding the Panel

When assembling the panel, our first priority was to find experts who could speak intelligently to the topics of most concern to the citizen panelists. The second priority was to seek diversity in the experts and perspectives, including sectors of occupation and views towards AVs. [xlii]

We reached out to lawyers, insurance companies, automobile companies, technology companies (cyber security, data collection and use, AV software development), urban planners, policy experts, stakeholder groups, researchers working on human and pedestrian interaction, and unions. We started by reaching out to experts who, through research or other publications, appeared able to address the citizens' questions. We asked women and people of color first whenever possible. The facilitation team reached out to over 70 experts in the region.

The final *Safety, Liability & Security* Panel included a law professor, the CEO of a security startup, an engineer from SF Motors, an AV safety researcher and a faculty member from the University of Michigan Robotics Institute. The range of sectors on the panel was adequate and there were only two Caucasian males. One challenge was that despite great efforts, the facilitation team was not able to find someone who could speak critically about the potential cyber risks associated with AV. Another issue was the expert's generally uniform disposition towards AV; everyone on the panel recognized that the technology had a ways to go but was optimistic about the promises it held. The facilitation team had spoken with experts who believe that the cyber risks associated with AV were too great and likely never to be overcome, however none of them were willing/available to speak on the panel.

The final *Labor, Equity and Environment* Panel included a bureaucrat, policy analyst, economics student and community development director. Again, the perspectives in sector and expertise were varied, unfortunately despite the panel topic, every panelist was a Caucasian male. This panel was more critical of the disruption AV could cause in society, but none of them were staunchly opposed to the technology.

United States media and policy discourse often relies on scientific and technical expertise and consequently over-represents perspectives that are white and male.[xliii] These factors

are likely to add to the alienation of minorities, low-income citizens, and women in their relationship to science and technology experts and policy makers.[xliv] Conversely, it may be difficult for experts in science and technology to understand and relate to the perspectives of minorities, low-income citizens, and women. **The facilitation team took for granted how hard it would be to find experts that broke from the white male perspective.**

Prior to the panel, the experts were given some introductory materials, which explained what a consensus conference was and their role. We informed the experts that the citizen panelists had knowledge of the topic but that it was important to use layperson language as much as possible. We also asked them to present as much factual and objective information as possible while also granting them permission to share their personal opinions or best guesses for the future.

Structuring the Panel

In a typical consensus conference, the witnesses will give brief presentations that sketch out their perspective but at least half the scheduled time will be devoted to citizen panelists' questions.[xlv] Given our time constraints, we decided to have two one-hour panel discussions where each of the panelists gives a brief introduction and the remaining time is available for questions. It was important to the facilitation team that the questions come from the citizens but we also wanted to get as much content from the experts as possible in the limited time. A week before the event, we asked the citizens to vote over email if they would prefer for Anna Lenhart to moderate the panel by asking the questions that arose during the first meeting and were approved by the citizens, or if the citizens would prefer to ask questions themselves in real time. The citizens voted to have Anna Lenhart moderate the panel and suggested that note cards be available to the citizen panelists to ask follow-up questions.

In the week leading up to the expert panel, the citizens received the experts' biographies and a draft list of questions based on the discussion during meeting one. Every expert comes with a set of values and political biases;[xlvi] lay participants were provided briefing materials that clarified experts' stake in the topic and gave forewarning that the panel lacked the desired level of diversity.[xlvii] Citizens responded to the email with additional questions and edits to the drafted questions. The final questions are attached in **Appendix D**.

On the day of the expert panel, citizens arrived and received the biographies and questions for one last opportunity to make edits. They were also provided with notecards for follow up questions. To assist with the need to quickly digest large amounts of information, we provided the citizens with a worksheet to record their thoughts during and immediately after each panel. There was a break between the two panels to allow for informal discussions among the citizen panelists and for them to ask clarifying questions to the experts.[xlviii] After both panels, the citizen panelists ate lunch and debriefed, specifically, which of their questions were still outstanding and which perspectives were missing.

Overall, the citizen panelists learned from the experts but were frustrated by the lack of diversity and felt they needed more time to ask questions. They suggested that it would have been helpful if each panelist gave prepared remarks rather than simple introductions. Some of the panelists expressed their difficulty in truly understanding a technology that is in development and suggested that the process include field trips to some of the AV testing sites.

The Public

In the consensus conference process, the interaction between the lay panel and the expert panel takes place in public; the press, politicians, central stakeholders and community members are invited to attend.[xlix] A public EventBrite event was created and promoted on Facebook and to email distribution lists throughout the county. The local media and politicians received personal email invites. Every invite explained what a consensus conference was and the objectives of the process.[l] A few weeks before the event, the *March for Life* rally for gun safety was scheduled in downtown Ann Arbor at the same time, which attracted the support and attention of the media and policy makers on that day.

During the opening remarks of the event, we explained what a consensus conference was and the role of citizens, emphasizing that the citizen panelists questions would be answered first and that attendees were invited to write their questions and comments on notecards for the moderator and if time allotted would be woven into the conversation. The event attendees were not used to being at an event where they were not able to raise their hand and ask questions and expressed frustration when they were not called on. In the future the event program should contain a clear description of the expert panel and its role in the overall democracy process so that attendees understand that their questions are not the priority. It is also important to note that those in attendance were mostly students and experts from the university community; the event did not attract many people from the surrounding communities.

Lack of Bridge Between Experts and Citizens

Power differentials (real or perceived) between scientists and citizens are a factor that contributes to the lack of citizen engagement on technology issues.[li] Given these factors, when citizens do engage with scientists and other experts, misunderstandings based on power, terminology, and cultural differences can result in citizen alienation from experts, and experts' impatience with what they perceive as citizens' ignorance.[lii]

By structuring the expert panel as two presentations, we failed to facilitate a meaningful two-way dialogue between experts and citizens. Our event came off as more of a one-way presentation of expert knowledge to citizens, which is unfortunate because the citizens' perspectives would have been useful for the experts.[liii] Consensus conferences can be a means for the expert community to achieve a better understanding of the concerns of 'ordinary people' in relation to their fields of expertise, which is important for the democratic governance of technology.[liv] In future conferences, this stage should be

structured as a forum for interaction between expert communities and lay people in which the learning process should be mutual and there should be a specific way for the citizens to challenge the experts.[lv]

Phase 4: Meeting Three: Report Writing, April 7th 9:00am - 12:00pm

Goal: During the last meeting, the panel will write a report, which answers the charge, summarizing the points they reached consensus on and identifying remaining points of disagreement.[lvi]

We designed a process for the report-writing session that aimed to include a diversity of perspectives and produce a complete, high-quality report. These factors are very important because consensus conference reports, assuming they are considered by policy makers and in public debate, could broaden the range of issues included in the evaluation of new technologies.[lvii]

After the second meeting, the facilitator team consolidated all the notes from the previous sessions into a draft position statement that included opportunities and challenges posed by AVs. The citizen panelists convened one final time at the University of Michigan Ford School of Public Policy to edit and expand upon the report draft. We split the participants up into two groups to start, one to focus on the *opportunities* draft and one to focus on the *challenges* draft. The citizen panelists began by spending 15 minutes editing their own copy individually. We then had them work with their group to consolidate their edits into one revised draft; they were allotted 45 minutes for this task. Once complete, the panelists were given a 15-minute break during which the facilitation team quickly typed the revisions in a live Google doc which was projected on the screen; they asked for clarification as needed. After the break, the panelists looked at the new version of the report and made comments.

Once the *opportunities* and *challenges* section was complete, we facilitated a conversation around specific suggestions for policy makers. We started with a group brainstorm where facilitators wrote on over-sized post-it notes. For the most part, there was consensus on what actions policy makers should take. There were two issues of contention that arose. The first was about how AVs are implemented into the community, whether they are implemented via mass transit, ride-sharing or family ownership changes the opportunities and challenges significantly. The panel did not feel like they had the time to dive into and agree on the best implementation strategy for the region, so they decided instead to make the following suggestion:

Continuously incorporate citizen voices in the planning process. Consultation with stakeholder groups such as Center for Automotive Research (CAR) yield valuable insights but is not sufficient for assessing the public's desires and concerns. The benefits from AVs vary greatly based on how the technology is introduced to our community (example: ride-share versus ownership versus mass transit). The public wants a say in how AVs are implemented, and this requires ongoing conversation with public representatives.

The other point of contention was around the idea that most of the suggestions rested on the premise that AVs are coming and cannot/should not be stopped. Two of the panelists agreed with all of the suggestions but were not comfortable saying they full-heartedly support moving forward with AV development in society. To account for this, those two participants wrote statements expressing their mixed views, which were published on the event website. We also included this caveat in the report:

Given the ambiguity of Level 5 vehicle safety performance, the citizens were not able to reach a consensus on whether Level 5 vehicles should be fully embraced. For this reason, you will notice no mention of stopping or increasing development support for Level 5 vehicles.

After the policy suggestion conversation, there was another break and facilitators typed up the suggestions from the board. We then went through each line and asked participants to raise their hand if they were happy with the line as written. Once we had the draft approved, the facilitation team spent two weeks doing some light edits, formatting and added a summary of the process. We then emailed the panelists for approval before publishing.[lviii]

Most of the citizens expressed liking the process and the way all the ideas were synthesized. Some expressed that they would have liked to work on Google docs prior to the meeting to leave more time for discussion.

Phase 5: Dissemination

Goal: Present the citizens' findings to the public and policy makers in a way that sparks a conversation about AVs in the community while also introducing the consensus conference mechanism.

The final *Official Statement* was made available for download on the event website and a press release including a summary of the process and findings and a link to the *Official Statement* was released (**Appendix E**). The press release was sent to the University of Michigan communications office and emailed to every newspaper outlet in Washtenaw County. As of this publication, only the Michigan Reporter picked up the story.

We sent the report to every policy maker in Washtenaw County at all levels including city councilors, county commissioners, state legislators and federal representatives. We invited representatives to meet with our facilitation team and available citizen panelists to discuss the consensus conference findings.

The conversations with policy makers highlighted a few themes:
1. Policy makers are, for the most part, only hearing from the automotive industry regarding AVs, they have not heard much from lay citizens. For this reason, there has been little effort to engage citizens in the AV planning.

2. Policy makers recognized the benefit some form of citizen commission on AVs would provide and were open to the idea.
3. Policy makers found the consensus conference procedure interesting and possibly beneficial for other topics in the future.

5. Findings & Evaluation

Our process set out to include a diverse group of participants, facilitate a quality deliberative discussion despite limited resources, empower citizens, and influence the policy debate.

The quality of the deliberative process varied through each meeting with the first and third meeting scoring the strongest. At the end of every meeting nearly every participant marked *agree* or *strongly agree* to the statement: *I am confident enough in my understanding of autonomous vehicles to participate in civil discourse on the topic.*

Throughout the process, the citizens became less confident that a group of citizens with diverse backgrounds can agree on recommendations for how policy makers should address a new technology. During the first meeting, nearly everyone recorded "agree" or "strongly agree" with the statement: *A group of citizens with diverse backgrounds can agree on recommendations for how policy makers should address a new technology.* By the final meeting, the level of agreement decreased slightly and one participant selected "disagree."

As seen in Table 1, the citizen panelists came from diverse backgrounds; and we also saw this fact appreciated in the participants' comments. In every meeting, the statement *I have gained insights from my fellow citizen panelists* regularly received responses of "strongly agree". These scores were often accompanied by comments about how interesting participant perspectives were.

During the second meeting, citizens were split regarding the insights they gained from the expert panelists. About half disagreed or were neutral to the statement *I have gained insights from the expert panelists,* while half marked "agree" or 5 "strongly agree." The expert panelists were very knowledgeable, based on the post-expert panel discussion and feedback, the frustration seemed to be more about the citizens feeling like their questions were unanswered and with the speculative nature of the topic.

Regarding citizen empowerment, in the first meeting, every panelist "strongly agreed" with the statement *I feel like my voice was heard.* During the third meeting, the report writing, everyone recorded "agree" or "strongly agree." These scores, along with positive comments, suggest that the facilitation of the citizen panel discussions was one of the strongest features of this conference. Yet at the second meeting, the expert panel, over half of participants recorded "neutral" or "disagree" to this statement. This is disappointing, considering how important facilitating deliberations between experts and citizens is to the consensus conference process. Through further conversation with the panelists we believe

this had to do with the limited time for questions, and resulted in several citizens feeling as though their questions were unasked or blown-over too quickly.

Overall, we feel like we made a step in empowering citizens around the idea that they can be involved in the science and technology policy-making process. The final report answered the charge and provided interesting insights and priorities not contained in the *Greater Ann Arbor Region Releases Planning for Connected and Automated Vehicles Report*.[lix] Several participants expressed enjoying the process and finding the topic interesting, but most agreed that there was not enough time to learn from experts and that the final report was limited because they still had questions about the technology. There is also the issue that attendance dwindled through the process, leaving important perspectives out of the conversation.

The facilitation team is left with the question: **If resources limit your ability to recruit a diverse group of experts, is the process worth doing?** It is hard to say how the final report would have turned out had the expert panel been more balanced in views and backgrounds.

This experience was incredibly rewarding, and we are grateful for and inspired by the citizens who participated and their commitment to the Washtenaw County community.

Appendixes

Appendix A: Final Budget
Appendix B: Citizen Panelists Application
Appendix C: Discussion Guidelines
Appendix D: Moderator Questions At Expert Panel
Appendix E: Press Release

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APPENDIX A: FINAL BUDGET

Item	Expense
Facebook Ads (Applicants & Event)	$ 60.00
Stipend [1]	$ 390.00
Meeting One: 11 Attendees	$ 165.00
Meeting Two: 9 Attendees	$ 135.00
Meeting Three: 6 Attendees	$ 90.00
Catering	$ 812.76
Meeting One: Coffee and Quiche	$ 155.00
Meeting One: Juice, Snacks & Yogurt	$ 46.78
Meeting Two: Continental Breakfast for Public Attendees	$ 182.20
Meeting Two: Lunch for Citizen Panel	$ 266.76
Meeting Three: Contential Breakfast for Panelists	$ 92.00
Meeting Three: Coffee Boxes	$ 27.54
Napkins, Cups, Plates and Plasti ware	$ 42.48
Venue	$ 300.00
Meeting One: Conference Room A and Food Surcharge	$ 100.00
Meeting Two: Multi-Purpose Room and Food Surcharge	$ 200.00
Printing [2]	$ -
Office Supplies	$ 60.00
Post-It® Self-Stick Easel Pad, 25" X 30", Plain White Paper, 30 Sheets	$ 33.00
Note Cards	$ 5.00
Sharpie® Flip Chart™ Markers, Assorted, Pack Of 8	$ 8.00
Office Depot® Brand Hello Name Badge Labels, Pack Of 100	$ 6.00
Office Depot® Brand Removable Round Color-Coding Labels, Assorted Colors, Pack Of 1,008	$ 8.00
TOTAL	**$ 1,562.76**

1. If all participants had attended each meeting, the total stipend expenditure would have been $495.00

2. Because our event was organized by students, we had access to free printing which was used for worksheets and event posters

APPENDIX B: CITIZEN PANELIST APPLICATION

Welcome

Welcome, this application should only take 5 minutes.

As self-driving cars make the move from science fiction to neighborhood parking lots, their impact on society has become a widespread topic of public debate. Across the University of Michigan campus, experts have presented on the technologies, regulatory issues, and business opportunities surrounding Autonomous Vehicles (AV). Missing though, are the critical perspectives and values of the community. This spring, a group of students from the University of Michigan are organizing an opportunity for community members to learn about and voice their opinions on what is destined to be a disruptive technology. This type of event, called a consensus conference, enables the public to contribute to the discussion around technologies that impact their lives. To better understand AV impacts in our community we are looking beyond these experts to those who will be most impacted--the community members themselves.

If you are interested in participating, please complete the form below. Applications are due December 20th and the steering committee will get back to you by January 2 and will ask for formal commitments by January 10th. The following information is important for curating a group of panelists that represents a wide range of perspectives throughout the county. The information collected will not be shared publically and will only be used for research/academic purposes. Please do not hesitate to reach out to annalen@umich.edu with any questions.

Contact Information

Name (First & Last)

Email

Primary Phone

Zip Code (must be a Washtenaw County resident)

[▲▼]

How long have you been a Washtenaw County resident (cumulative)?

○ Less than 1 Year
○ 1-4 Years
○ 5-9 Years
○ 10-14 Years
○ 15+ Years

Demographics

Gender Identity

[▲▼]

Age

[ ]

Religious Affiliation (if none, write none)

[ ]

Ethnicity (Can select multiple)

○ White
○ Black or African American
○ American Indian or Alaska Native
○ Asian
○ Native Hawaiian or Pacific Islander
○ [ ] Other

Level of Education

○ Some High School
○ High School Graduate
○ Some College
○ Bachelors Degree
○ Graduate Degree

What is your highest degree/major?

What is/was your primary occupation?

Is there anything else you would like to tell us about your background (cultural, economic, or experiential)?

AV Interest

In a few sentences, why are you interested in participating in a consensus conference regarding autonomous vehicles (sometimes referred to as self-driving cars)?

[ ]

Autonomous vehicles background

	Strongly agree	Agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Disagree	Strongly disagree
I am knowledgeable on autonomous vehicles	○	○	○	○	○	○	○
I support the development of autonomous vehicle technology	○	○	○	○	○	○	○
I consider myself civically engaged	○	○	○	○	○	○	○

I understand I will need to be present at the following events:

- Event 1- Saturday, February 17th: Background Discussion 9:00am-1:00pm at the Ann Arbor Downtown Library
- Event 2- Saturday, March 24th: Expert Presentations (who presents is determined by the citizen panelists at Event 1) 9:00am-6:00pm at the Ann Arbor Downtown Library
- Event 3-Saturday, April 7th: Consensus Report Writing & Discussion 9:00am-1:00pm (location TBD)

○ Yes
○ No

How did you hear about this event?

[ ]

Additional Comments

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GUIDELINES FOR PRODUCTIVE CONVERSATION

STAY IN LEARNING MODE

Be open to new ideas and information, seeking to hear and understand a wide range of perspectives. Avoid "campaigning" for a specific position.

Tips/Examples
» Notice your beginning stance on an issue.
» Notice how your understanding changes as new information becomes available.

MAINTAIN A POSITIVE ATTITUDE

Assume good intent. If the intent of another party is not clear, ask questions and seek to clarify their meaning.

Tips/Examples
» "When you spoke, I interpreted what you said as _____. Is that what you intended to communicate."
» "I'm curious why that's important to you."
» Smiling works!

LISTEN WITH CARE

Make a genuine effort to understand the perspectives of others, especially before trying to get them to understand your perspective. Limit interruptions.

Tips/Examples
» Bracket your own opinion(s) briefly in order to be ready to listen to others.
» Ask a question before responding, i.e. "what leads you to that conclusion?"
» Check for understanding, i.e. "I think I heard you say _____. Is that accurate?

KEEP FOCUSED ON THE ISSUE

Pay attention to and focus on the most significant issues. Limit digressions and minimize stories unless they are pertinent to the issues being discussed. Focus on the issues, not on other people.

Tips/Examples
» Jot down points you want to make that are not related to the current discussion for later reference.
» Help each other, i.e. "Can you help me understand how this is related to the issue we're discussing right now?

SPEAK CLEARLY & CONCISELY

SHARE THE "AIR-TIME"

Speak clearly and concisely. Time is precious, so limit discussion on an issue to as short a statement as possible. After you have had an opportunity to speak, wait for others to speak before contributing again.

Tips/Examples
» Jotting down what you want to say can help you be clear and concise.
» Check with and make room for people who may not have spoken as often as you.

PARTICIPATE FULLY

Participate and contribute to the discussion, but don't dominate it by interrupting others or being long-winded. Don't stay silent when your views differ from the current discussion—your perspective will enrich the conversation!

Tips/Examples
» Don't dismiss your thoughts as unimportant if they differ from what others are saying.
» Let the group know if there is something that prevents you from participating fully (ex. you can't see or hear, you're missing a handout, etc.)

DISAGREE POSITIVELY

(not like this)

Express your views when you disagree, but do so in a positive way. Direct your energy toward the issues, not people. Be a problem-solver by suggesting alternative approaches or solutions.

Tips/Examples
» "I see that differently" or "I have a different conclusion," rather than "you are wrong" or "I have a problem with that."
» Inquire of others—"What leads you to this conclusion?"
» Be clear that you are speaking your position—"I understand it this way" rather than "this is the way it is."

APPENDIX D: MODERATOR QUESTIONS AT EXPERT PANEL

SCHEDULE & PROPOSED QUESTIONS

Below is the schedule for the March 24th Expert Panel including the expert's bios. In a consensus conference the organizers strive for the expert panel to have a range of viewpoints and perspectives. With the topic of AVs this was difficult and as a result the following biases will be present and I want you to be fully aware:

1. **Nearly every panelist is male and most are white**. We reached out to women and people of color but most of them were not able to present. Also the industry is male dominated.
2. **The perspectives on the panel will skew toward optimistic/neutral**, there are experts that are pessimistic about AV technology, but none were willing to speak publically about their concerns. With that said I think the neutral experts will speak to the pessimistic side if we ask the right questions.

9:15am: Citizens' Panel arrives to review process and eat breakfast

9:30am: Event Opens to the public & Light Breakfast

9:40am: Anna welcome and introduces the event, panelists introduce themselves

9:50am: Safety, Liability & Security Panel

1. In AZ this week the first pedestrian died from an AV, given the current laws and regulation, what does this mean for Uber? Who should/will be held accountable? Follow-up: If the liability were to shift to the corporations, how would they mitigate it (e.g. leasing with term of use clauses, etc.)? In the future, what do you envision will happen if a driver has a collision with an AV? Exchange of insurance info, police response, etc.)

2. The public is seeing news articles, such as the one in the Detroit News, Jan 12, 2018, that indicates GM will sell Level V AVs in 2019 as part of fleets. Ford is expected to field one in 2021. What is the current industry expectation for deployment of AVs to the general public, either for sale, lease, or on-call? Follow-up: Is there any plan to retrofit today's cars with AV technology? For example, when air conditioned cars deployed, selling a car without air conditioning was difficult. Someone came out with after original sale installation kits: The older cars now had value.

3. We hear that AVs will be safer then human drivers, in part to the fact that human drivers are distracted by cell phones and what not, why should/shouldn't the focus

be on completely autonomous vehicles, vs technologies that say disable cell phone use upon entering a car or some other way of making humans more attentive? Follow-up: Through the stages of autonomy, some of these driver problems are mitigated. Is the safety curve log normal, and is there a progression where automation decreases safety because of decreased ability of the driver to intervene?

4. There will not be AVs on the road overnight, in your opinion how should (if at all) Level 2/3 vehicles, such as Tesla's current model share the road with the eventual 4/5s and of course with the Level 0 vehicles.

5. None of you work for regulatory bodies, but you are involved in the conversations around regulation, what is the best way to guarantee vehicles are safe from both a driving accident perspective and cyber security perspective?

6. How is testing being undertaken? Follow-up if not addressed: Is there a concern that a particular population will be more susceptible to accidents during the testing phase then other populations based on where the testing is located, and the test drivers?

7. How is data being collected right now? What efforts are being made to protect that data? Who owns the data?

8. Can you speak to the risk of automobile hacking? And to the larger question of will these vehicles always do what the driver instructs (example: commit a bank robbery)? Follow-up: Are there low technology ways to crash AV systems (power outages, fake accident reports, etc.) and are they being addressed?

9. AVs are often spoken about in regards to the sharing economy, Lyft/Uber require mobile apps/credit cards – is industry thinking about how users without smartphones can access AVs?

10. What do you see as the role of Vehicle-to-vehicle communications? Are the challenges similar/different to fully autonomous vehicles? Follow-up: could v-2-v comms help with ambulances and fire trucks?

10:50am: Break- Citizens Panel Short Reflection

11:05am: Labor, Equity & Environment

1. What is being done to bring stakeholders together? What are the goals of convening those stakeholders? Who is representing community members? Is anyone working on a long-term transition plan?

2. As policy makers, from where you sit, what have you been hearing as the top concerns/excitement from citizens?

3. Unequal access to transportation plays a role in limiting socio-economic mobility and access to jobs, education, and leisure activities. What are the possibilities for AV technologies to diminish or widen these disparities? Which of these possibilities seem most likely to be realized by current development plans? Follow-up: Uber and Lyft are concentrated in highly populated areas. What is the plan to support those residents in the less populated areas outside of Ann Arbor and Ypsilanti?

4. How is Southeast Michigan preparing to transition the labor force? Follow-up: Where will AV be manufactured?

5. What are the predicted impacts of AV technology on related industries (road construction, mass transit, truck stops, etc)?

6. There is a concern that once AV technology is ready, truckdrivers and taxi/uber drivers would loss their jobs, do you have thoughts on the speed at which that would occur and where those employees could find work?

7. What does the rise of AVs potentially mean for the electrical grid? Land use?

8. What is the role of highway patrol in a world with AV? Is there a concern about loss of traffic ticket revenue? Is there a potential for racial profiling to decrease?

12:05pm: Lunch & Debrief

1:00pm: Must Clear the Room

Autonomous Vehicles in Washtenaw County: Diverse Citizen Panel Highlights Concerns and Opportunities for Policymakers in New Report

For Immediate Release: April 26, 2018

Contact Info: Anna Lenhart, annalen@umich.edu, 240-527-7144
Citizen panelists also available for quotes
More project details: bit.ly/WCSelfDrive

[Ann Arbor, Michigan] The Washtenaw County Consensus Conference on Autonomous Vehicles released their official statement today. Available for download here.

In December 2016, Michigan passed the most "permissive" autonomous vehicle (AV) laws in the country, allowing cars on public roads without safety drivers or steering wheels. Due in part to the work of University of Michigan's Mcity and The American Center for Mobility at Willow Run in Ypsilanti, Washtenaw County roads are expected to be early hosts of AVs. Thus far, industry and academic experts have driven the conversation and policy development. Missing though, are the critical perspectives and values of the community.

This spring, students from the University of Michigan's *Engaging Scientists in Policy Advocacy (ESPA)* organized an opportunity for community members to learn about and voice their opinions on what is destined to be a society-altering technology. This type of event, called a consensus conference, enables the public to contribute to the discussion around technologies that impact their lives. Eleven citizens were selected to represent Washtenaw County and convened three times throughout the process to learn more about AV technology, engage with experts, and make recommendations.

"I appreciate the opportunity to sit, share and learn from such a group of intelligent and proactive individuals as we had in the consensus group. I appreciate everyone's input, sharing their feelings, experience and thoughts on this highly evolutionary topic of autonomous vehicles. It was helpful to hear more about the future development of these vehicles from some front line experts." ~Lisa Perschke, citizen panelist

Overall the citizens viewed AVs as an opportunity to not only reduce traffic accidents but also as a technology that could potentially address some of the social injustice issues facing Southeast Michigan, including providing access to communities that lack mass transit access. They also viewed the rise of a new industry (AV testing facilities and development) as a chance for job creation and believe that strengthening the education pipeline to ensure that residents of Southeast Michigan are competitive for new jobs should be a top priority.

The citizen's concerns, however, are that these opportunities may not be realized if industry leaders are the only voice in the policy making process. The auto industry's primary objective will be to sell AVs, and thus it is up to citizens and their representatives to direct the advancement and "roll-out" of these vehicles in a way that is safe, transparent and equitable.

> **"**
> IT WAS VERY INFORMATIVE AND I ENJOYED BEING EXPOSED TO OTHER OPINIONS AND INSIGHTS
>
> ~CITIZEN PANELIST