Task Force on Autonomous Vehicles Meeting  
August 20, 2019  
State Library of Oregon, 250 Winter St. NE, Salem, OR, Conference Rooms 102/103

Members in attendance: Lt. Timothy Tannenbaum (Chair), Rep. Susan McLain, Mike Bezner (alternate for Commissioner Savas), Miriam Chaum (alternate for Caleb Weaver), Kate Denison (alternate for Cheryl Hiemstra), Marie Dodds, Steve Entler, Daniel Fernández, Chris Hagerbaumer, Eric Hesse, Ritchie Huang (alternate for Sean Waters), Jana Jarvis, Gail Krumenauer (alternate for Todd Nell), Evan Manvel, Mark MacPherson, Galen McGill, David McMorries, Robert Nash, Jeff Owen, Carly Riter, Eliot Rose, Michael Rose (alternate for Neil Jackson), Jeremiah Ross, Becky Steckler, Graham Trainor, Caleb Weaver

ODOT staff in attendance: Roberto Coto, Michelle Godfrey, Amy Joyce, Ali Lohman

Public attendance: Jacob Bell (representing Waymo), Patrick Brennan (Joint Transportation Committee LPRO Analyst), Amanda Dalton (representing CompTIA), Angi Dilkes, Justin Freeman (representing Tesla), Montana Lewellen (representing USAA), John Powell (State Farm), Alma Raya (ALF-CIO), Lt. Scott Rector (Oregon State Police)

Welcome and Opening Remarks (Chair Tannenbaum)

Chair Tannenbaum welcome the group and led introductions. He thanked the task force members and the staff for their work.

Review of Minutes (Chair Tannenbaum)

The task force approved the draft minutes from the July 25 meeting.

Schedule and Preparations for the Final Report (Ali Lohman)

Ali Lohman reiterated that this was the last meeting at which task force members would be able to vote on materials to be included in the final report. She explained that staff will draft the final report and provide the members with an opportunity to review the draft and provide comments. Staff will then revise the draft. The task force will meet again on Sept. 9 to vote on
the final report. If the task force approves the report, it will be submitted to the Legislature by Sept. 13.

Public Comment

Amanda Dalton (representing CompTIA) noted that CompTIA, the Internet Association, TechNet, and the Technology Association of Oregon had provided two written comments in the past couple weeks (available on the task force website here and here). She asked that the document prepared by the Cybersecurity, Privacy and Data Subcommittee, “Information Regarding Privacy Principles,” acknowledge that Oregon’s Attorney General has convened a privacy work group addressing privacy issues more broadly. She noted that the privacy principles discussed in the document have broad implications for technologies beyond automated vehicles.

Dalton also raised concerns that the “Data and Privacy Principles” document prepared by the Land Use Subcommittee the previous week had not had time for sufficient vetting and feedback. She requested that the document not be included in the final report. She suggested instead that it be forwarded to the Attorney General’s privacy task force.

Road & Infrastructure Design Subcommittee (Galen McGill)

Galen McGill briefly described the Road & Infrastructure Design Subcommittee’s materials, which are available here on the task force website. He then asked for questions or comments.

Becky Steckler asked if the impact assessments identified relevant established statewide policy goals. McGill explained that most of the impact assessments address Goal 2 of the Oregon Transportation Plan: management of the transportation system. Lohman suggested adding that information to the introductory section for the Road & Infrastructure Design Subcommittee’s materials. Steckler and McGill agreed with this approach.

Impact Assessment on Vehicle-to-Infrastructure (V2I) Communications

Regarding the “Impact Assessment on Vehicle-to-Infrastructure (V2I) Communications,” Chris Hagerbaumer suggested including information about how the same technology can be used for vehicle-to-everything (V2X) communications, particularly with bicyclists and pedestrians. The task force agreed to add that clarification.

Mark MacPherson asked how V2I technology is being used in Oregon. McGill explained that V2I technology is being used in pilots in Oregon, especially for communication between vehicles and traffic signals using signal phase and timing (SPaT) data. One pilot on Mission Street in Salem uses dedicated short range communication (DSRC) radios.
Jana Jarvis noted the importance of V2I technology for trucking applications, such as signal prioritization.

Steckler asked if the “Next Steps” section could be considered the subcommittee’s recommendations. McGill said the “Next Steps” section included next steps Oregon could take to prepare for the emerging technologies. Lohman, McGill, and Chair Tannenbaum reminded the group that because automated vehicle technology is still in development, many of the subcommittee materials this year are informational. A few provide recommendations, but most materials are intended to provide the Legislature with a status update rather than detailing recommended statutory changes.

**Impact Assessment on Cybersecurity for Vehicle-to-Infrastructure (V2I) Communications**

Regarding the “Impact Assessment on Cybersecurity for Vehicle-to-Infrastructure (V2I) Communications,” Jeremiah Ross noted that there were also consumer privacy concerns associated with V2I technology. He asked that these concerns be noted in the “Next Steps” section of the impact assessment. He suggested adding the following sentence: “Take steps to ensure that privacy is protected.” The task force members agreed to this edit.

Miriam Chaum emphasized that connected vehicle technology and automated vehicle technology are distinct and are being developed separately. She noted that Uber is developing automated vehicles intended to operate within the existing road environment. McGill agreed and suggested including a note in the introductory paragraph that some of the topics addressed in the impact assessments may enable automated vehicle operation while others may simply enhance it.

**Impact Assessment on Curb Space Management**

MacPherson expressed concern that the “Impact Assessment on Parking” encourages use of TNCs and discourages use of personal vehicles. McGill clarified that the impact assessment is not intended to encourage or discourage use of TNCs and is addressing issues experts have identified as potential impacts of automated vehicle deployment for road and infrastructure operators. MacPherson and McGill agreed that curb space management policies will be largely governed by local communities.

**Impact Assessment on Electric Vehicle Charging**

Hagerbaumer disagreed with a caveat in the “Co-benefits/advancing established goals” section of the impact assessment, which states that “there is no conclusive evidence that providing increased access to charging outside the home makes a meaningful difference in increasing the number of EVs on the road.” She noted that range anxiety is an important issue. She asked for the opportunity to work with Eliot Rose and Forth Mobility to make edits to the document or for the sentence to be removed. Marie Dodds explained that the subcommittee had discussed this issue and noted that the increasing range of newer EV models has decreased the need for charging outside the home.
Hagerbaumer also agreed that EV owners are wealthier than average, but highlighted the importance of helping lower-income individuals purchase EVs.

Eric Hesse suggested looking to the “Next Steps” section, which suggests continued investment in EV charging and support for goals identified in Executive Order 17-21.

**Impact Assessment on Parking**

Mike Bezner observed that the impact assessment acknowledges that AVs could either increase or decrease demand for parking, but the assessment focuses on reducing parking. Rose explained that this is in line with established state goals for reducing parking.

**Impact Assessment on Lane Width**

MacPherson raised concerns about emergency vehicles and commercial vehicles. McGill agreed and pointed to the “Barriers” section, which notes that “opportunities to reduce lane widths can be limited when roads serve multiple purposes. For example, passenger vehicles often share roadway space with commercial, freight and emergency vehicles that are typically wider than passenger vehicles and require wider lanes […] It is important to consider all road users and purposes before narrowing lanes.” Jarvis explained that she raised the same concerns during the subcommittee discussion and changes were made to the document to reflect those issues.

**Vote on Inclusion in the Final Report**

Several members on the phone raised concerns that they could not clearly hear the discussion in the room and abstained from voting. The task force agreed to try to enunciate clearly and to use the microphones. MacPherson shared that Graham Trainor had dropped off the call because he could not hear well. MacPherson offered to contact Trainor to let him know they were trying to address the audio challenges.

**Ayes:** 18

**Nays:** Mark MacPherson

**Abstain:** Mike Bezner (alternate for Paul Savas), Miriam Chaum (alternate for Caleb Weaver), Ritchie Huang (alternate for Sean Waters), Gail Krumenauer (alternate for Todd Nell),

**Absent:** Richard Blackwell, Capt. Stephanie Ingraham, Graham Trainor

**Cybersecurity, Privacy and Data Subcommittee (David McMorries)**

David McMorries briefly described the Cybersecurity, Privacy and Data Subcommittee’s materials, which are available [here](#) on the task force website. He then asked for questions or comments.
Information Regarding Privacy Principles

Hesse raised a concern that the paragraph about “opt-in options” could be interpreted to mean that corporate entities would not have to share information required by regulation. McMorries and Kate Denison agreed that this reading was not intended. Hesse suggested removing the word “corporate” from that paragraph. The task force agreed to change the second sentence in the paragraph to read: “First, data-collecting entities providing a mechanism for individual or corporate “opt-in” for information to be shared, with a specified data use agreement executed by the entity receiving personal or corporate information, would provide the most transparency and the highest control of the data by the owner of the information.”

Hesse also raised a concern about the paragraph on state and local government responsibilities. He explained that if a state or local government only has aggregated and depersonalized data, they may not be able to “provide a method for the consumer to access this data.” He suggested making the following change to this sentence: “If consumers or industry must provide this user-specific information as a condition of use of automated vehicles, the State and local governments should specify the data elements desired, the reasons for collection, provide a method for the consumer to access this data, and use and update methods for data anonymization.” The task force agreed to this edit.

Lohman observed that the second paragraph states that privacy policies related to automated vehicles should align with the work of other groups considering privacy more broadly. Based on the public comment and on discussions in the subcommittee and task force meetings, she suggested specifically calling out the Attorney General’s Consumer Privacy Task Force. The task force agreed to this edit.

Chaum raised concerns that differential privacy tools are still largely theoretical, especially regarding their use in public policy applications. She suggested focusing on aggregation instead. She also highlighted that full anonymization is very rarely possible. The task force agreed to remove the specific references to differential privacy techniques. The first sentence in the paragraph on anonymization techniques was changed to read: “This concept of “differential privacy” The anonymization of data means that by looking at the output of a dataset, one cannot tell whether any individual’s data was included in the original data or not.” The task force also agreed to delete the following sentence: “Differential privacy is a concept from academic researchers, who are often faced with the challenge of protecting privacy while researching sensitive issues with sensitive personal information.”

Regarding the “opt-in” options paragraph, Daniel Fernández wanted to clarify that entities need certain data in order to ensure safety and system operability. He suggested the following edit to the second sentence: “First, data-collecting entities could provide a mechanism for individual “opt-in” for information not necessary for system operability to be shared, with a specified data use agreement executed by the entity receiving personal information.”
Steve Entler asked whether the subcommittee had considered the issue of public records requests. McMorries explained that they had and pointed to the paragraph on information collected by government agencies, which notes that “governments using information collected from automated vehicles should also be mindful of balancing public records laws with an eye toward protecting privacy.”

**Vote on Inclusion in the Final Report**

**Ayes:** 23

**Absent:** Richard Blackwell, Capt. Stephanie Ingraham, Graham Trainor

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**Public Transit Subcommittee (Jeff Owen)**

Jeff Owen briefly described the Public Transit Subcommittee’s materials, which are available [here](#) on the task force website. He then asked for questions or comments.

**Recommendations for Public Transit and Automated Vehicles**

Chaum flagged that at least at first, on-demand automated vehicle service will likely be constrained to a narrow operational design domain, so initially there may be barriers to providing on-demand automated transit in rural areas.

**Vote on Inclusion in the Final Report**

**Ayes:** 23

**Absent:** Richard Blackwell, Capt. Stephanie Ingraham, Graham Trainor

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**Workforce Changes Subcommittee (Gail Krumenauer and Ali Lohman)**

**Report: Occupations Affected by Autonomous Vehicle Adoption in Oregon**

Gail Krumenauer briefly described the report she prepared for the Workforce Changes Subcommittee, which is available [here](#) on the task force website. She then asked for questions or comments.

Jarvis highlighted that this is a very sensitive issue for the Oregon Trucking Association and noted that drivers do more than drive trucks. Krumenauer agreed: the report notes that the responsibilities associated with existing jobs may change and that entirely new occupations may be created by the deployment of automated vehicle technology.

Steckler asked whether the subcommittee had considered other occupations, such as retail jobs. Krumenauer and MacPherson explained that the subcommittee discussed that issue and acknowledged that vehicle automation could have ripple effects on many industries and
occupations, but focused this preliminary research on occupations for which concrete data was available. Lohman observed that the subcommittee specifically mentioned impacts on retail in the “Recommendations for an Independent Study to Examine and Prepare for Potential Impacts of Automated Vehicles on the Workforce.”

**Recommendations for an Independent Study to Examine and Prepare for Potential Impacts of Automated Vehicles on the Workforce**

Lohman briefly described the recommendations prepared by the Workforce Changes Subcommittee, which is also available [here](#) on the task force website. There were no questions or comments.

**Vote on Inclusion in the Final Report**

**Ayes:** 21

**Absent:** Richard Blackwell, Ritchie Huang (alternate for Sean Waters), Capt. Stephanie Ingraham, Carly Riter, Graham Trainor

**Vehicle Code Amendments & Public Safety Subcommittee (Chair Tannenbaum)**

Chair Tannenbaum briefly described the Vehicle Code Amendments & Public Safety Subcommittee’s materials, which are available [here](#) on the task force website. He then asked for questions or comments.

**Statement of Intent: Acknowledgment that Minimum Coverage May Change in Some Situations**

Eliot Rose observed that minimum insurance coverages may need to change for a significant share of automated vehicle traffic.

Michael Rose noted that as automated vehicle technology changes, the market may change so that fewer individuals need to be insured.

Lohman, Robert Nash and Chair Tannenbaum identified that this issue had already been addressed in this document and the “Statement of Intent: Incorporating Automated Vehicles into Oregon’s Vehicle Code.”

Chaum asked whether there was an inconsistency between the “Statement of Intent: Incorporating Automated Vehicles into Oregon’s Vehicle Code” and the “State of Intent: Acknowledgment that Minimum Coverage May Change in Some Situations.” She disagreed that insurance requirements may need to change for AVs in the TNC context. Nash observed that insurance minimums are in place because many people driving on the road today may not otherwise have the financial means to provide compensation for damages; in the future,
companies that own and operate automated vehicle fleets will likely have access to adequate financial means, so the discussion of insurance minimums is less important for them.

Chair Tannenbaum explained that the documents had been prepared by subject matter experts and called a vote on the documents without edits.

**Vote on Inclusion in the Final Report**

**Ayes:** 20

**Abstain:** Miriam Chaum (alternate for Caleb Weaver)

**Absent:** Richard Blackwell, Ritchie Huang (alternate for Sean Waters), Capt. Stephanie Ingraham, Carly Riter, Graham Trainor

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**Land Use**

Evan Manvel briefly described the Vehicle Code Amendments & Public Safety Subcommittee’s materials, which are available [here](#) on the task force website. He then asked for questions or comments.

**Recommendations to Use Oregon’s Automated Vehicle Work to Further Existing State of Oregon Goals**

Chaum flagged that it is important to remember that automated vehicles will comprise a small portion of the total fleet for the foreseeable future. She emphasized that achieving these goals will required concerted effort from all transportation sectors, not just automated vehicles and suggested editing the document to reflect that. Lohman noted that all transportation goals apply to the entire transportation system. The task force decided not to include such an edit.

**Recommendations for Data and Privacy Principles**

Based on preliminary feedback from the Cybersecurity, Privacy and Data Subcommittee, Manvel suggested a couple of edits. First, he suggested removing the specific mentions of the California Consumer Privacy Act and the Mobility Data Specification in Recommendations #3. Second, he suggested the following edit to Recommendation #4: “Public agencies that have the authority to regulate automated vehicles plan, operate and manage the transportation system should have access to data on automated vehicle trips and usage to manage and plan for automated vehicles.”

Steckler asked if the edit to Recommendation #4 would allow transportation agencies to share data with the departments or divisions responsible for planning. Manvel explained that these were simply principles and that these details would need to be addressed in the future.

Nash asked if this document was addressing only public entities. He suggested limiting Recommendation #2 to public agencies rather than including private companies. He also noted...
that in Recommendation #8, it may not be appropriate to impose the same restrictions on data collection by the public and private sectors because the purposes and types of data may be very different. He suggested deleting Recommendation #8.

Nash also asked if Recommendation #4 referred mainly to aggregated data rather than personal data of individuals. Manvel and Hesse agreed that this was the case.

Caleb Weaver agreed with both of Nash’s suggestions. He raised concerns about the process, noting that the document had been created just two or three business days ago. He also felt that the document did not accurately capture the discussion at the Joint Meeting on Data. Manvel acknowledged that the subcommittee had moved very quickly.

Rep. McLain noted that topics raised in this document were of interest to her, but she recognized that the issues were complex. She hoped that more time and consideration would be given to these issues. Weaver echoed Rep. McLain’s points.

Manvel asked if there were specific recommendations that needed more nuance or consideration. He expressed support for the document and the work of the Land Use Subcommittee.

Ross expressed concerns from the privacy and consumer protection perspective. He noted that consumer data will still be collected by third parties, which raises privacy issues that need to be addressed. He felt that in some places the recommendations conflict with the materials prepared by the Cybersecurity, Privacy and Data Subcommittee. He identified specific concerns with Recommendations #2, #3, #4, and #8.

Based on the concerns raised, Manvel suggested not voting on the recommendations. Steckler described how important it is for public agencies to have adequate access to data to manage the transportation system as emerging technologies are introduced into the system. She expressed support for including some statement or recommendations to that effect.

Hagerbaumer asked if there would be opportunities to include a minority report or appendix. Lohman explained that every task force member will have the opportunity to include comment letters in the appendix of the final report.

Lohman suggested setting the document aside and recommending that the issues raised in the “Recommendations for Data and Privacy Principles” be further addressed in the future. Rep. McLain suggested including it in the appendix. Chaum and Nash expressed concerns about including the document in the appendix without making additional edits.

**Public Sector Information Needs to Guide AV Policy and Manage AV Testing/Deployment**

Manvel suggested updating a footnote on page 3 because the National Association of City Transportation Officials (NACTO) has released its paper on “Managing Mobility Data.”
Eric Hesse noted that while the “Recommendations for Data and Privacy Principles” document was created the previous week, the memo on “Public Sector Information Needs to Guide AV Policy and Manage AV Testing/Deployment” was drafted in April. He asked whether the task force could vote on the memo or if it could be included in the report appendix.

Chaum, Jarvis and Weaver did not feel ready to vote on the memo on “Public Sector Information Needs to Guide AV Policy and Manage AV Testing/Deployment” without further discussion. There was not enough time to sufficiently discuss and address the memo in the meeting.

**Vote on Inclusion in the Final Report**

Based on the task force discussion, Chair Tannenbaum decided not to put the “Recommendations for Data and Privacy Principles” and the “Public Sector Information Needs to Guide AV Policy and Manage AV Testing/Deployment” up for a vote.

The task force voted on the following documents:

- Examples from Other Jurisdictions
- Considerations for Pricing Highly Automated Vehicles by Occupancy
- Recommendations to Use Oregon’s Autonomous Vehicle Work to Further Existing State of Oregon Goals

**Ayes:** 16

**Nays:** Marie Dodds, Jana Jarvis

**Abstain:** Miriam Chaum (alternate for Caleb Weaver), Daniel Fernández

**Absent:** Richard Blackwell, Ritchie Huang (alternate for Sean Waters), Capt. Stephanie Ingraham, Gail Krumenauer (alternate for Todd Nell), Carly Riter, Graham Trainor

**Considerations for the Future of the Task Force (Amy Joyce)**

Amy Joyce described the bill (HB 4063 of 2018) that created the Task Force on Autonomous Vehicles. HB 4063 required the task force to submit a report to the Legislature in Sept. 2018 with detailed recommendations for statutory changes. HB 4063 also allowed the task force to pursue a second optional report in 2019, which the task force voted to do. HB 4063 did not provide direction for the task force after Sept. 2019. The task force will sunset in January 2021.

At the Sept. 9 meeting, the task force will need to discuss whether it continues to meet. Joyce identified two considerations for the future of the task force. First, she suggested that if the task force wants to continue meeting, they need to set a clear mission goals. Second, she explained that ODOT cannot continue to staff the task force at the current level, so the task force needs to consider staffing and the necessary level of staffing going forward.
Rep. McLain expressed appreciation for the work of the task force and encouraged the task force to identify a limited mission moving forward. She also said the Legislature is interested in identifying the next steps for Oregon and continuing to monitor and discuss issues related to automated vehicles.

**Next Steps (Chair Tannenbaum)**

The materials voted on by the task force will be incorporated into the report.

ODOT staff will draft the final report and provide it to the task force members, who will have an opportunity to provide feedback and submit comment letters. Staff will incorporate edits and finalized the report.

The task force will meet again on Sept. 9 to vote on the final report and discuss the future of the task force.