Today we’ll be answering 4 questions.

1. What even is a policy memo?
2. Why write (or read) a policy memo?
3. Ok, but what does a good one actually look like?
4. What are do’s and don’ts that I can fall back on when in doubt?
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2. Why write (or read) a policy memo?
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- Impact and Empathy!
2. Why write (or read) a policy memo?

- Decision-makers are busy people and often do not have time to read all of the research, consult relevant stakeholders, and arrive at well-founded conclusions by themselves.

- They may be evaluating several distinct issues (and memos!) over the course of one day or meeting. This is why they hired you!
2. Why write (or read) a policy memo?

They are **concise, well-organized** documents that privilege readability. Not only are they fun to read, but they can be fun to write. They are easily passed along and easily implemented. Compare with philosophy paper...
2. Why write (or read) a policy memo?

- In synthesizing diverse sources and interpretations into a coherent, succinct document, you are likely to better acquaint yourselves with the issues and associated costs, benefits, stakes, etc.
3. What does a good one look like?

- Let’s actually take a look...
Executive Summary

In this memo, our committee explores the proposed policy of a comprehensive shift to a fleet of autonomous vehicles (AVs) on Stanford University’s campus. We first discuss a set of potential advantages (environmental benefits, increased safety, and reduced costs) and disadvantages (risks associated with AV/human commuter interactions, job loss) associated with the proposed shift. Next, we discuss university community values learned from conducting numerous interviews with stakeholders and analyze how a university AV system, if adopted, could be designed to reflect the most important values we uncovered. Finally, using insights gleaned from interviews and outside research, we explain our recommendation not to move forward with the shift to AVs.

Potential Advantages

Our committee sees three key advantages of an AV system:

1. Environmental benefits, increasing overall efficiencies
2. Reducing traffic congestion
3. Increased safety

Environmental Benefits

AVs have the potential to greatly reduce carbon emissions and related environmental impacts. For example, a transportation software company in Austin, TX, notes an average fuel consumption reduction of 24% in the time it is operating.1 By dynamically learning the most efficient routes on campus based on factors like

1 https://smarttrak.com/the-costs-of-fleet-idle-time/
Potential Negative Consequences

Dangers of Autonomous Vehicle Consumer Interaction

The increasing use of self-driving, cellphone, and tablet technology could pose serious hazards to traffic safety. Consequently, the potential for consumer interaction or distracted driving is a critical issue that needs to be addressed.

To mitigate threats from 5G and smartphones, the university would need to 1) educate students about the risks and proper social etiquette of using 5G technology, 2) monitor smartphone use in high-visibility areas on campus, and 3) provide enforcement of the policies to ensure that students are aware of the potential dangers.

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Job Displacement

While the majority of respondents agreed that 5G would bring significant benefits, such as job creation and improved communication, a significant portion of respondents expressed concerns about job displacement. Some respondents felt that 5G technologies would lead to job losses in various industries, particularly in fields such as manufacturing and transportation, where jobs are often considered to be at risk.

Environmental Benefits

5G has the potential to greatly reduce the environmental footprint of vehicles, decreasing pollution, noise, and traffic congestion.

Table of the Road

1. People who regularly live or drive in or around university campuses. 2. Employees whose jobs would be at risk from the shift to 5G. 3. Smartphone users and drivers of taxis and ride-sharing services.
Our program approach moves thoroughly through consideration of all relevant perspectives, while maintaining accountability that will result in a useful, informed, and prepared decision.

Our Recommendation

After carefully evaluating potential benefits and consequences of AV technology, the values and concerns of Stanford community members, and potential methods for campus-wide implementation, we believe Stanford University should not deploy autonomous vehicles on campus at this time. While the technology will likely yield eventual environmental benefits, increased safety, and decreased costs for the university, we feel the current state of AV technology is unable to meet the expectations and values of our campus community, particularly regarding safety and humanity in transportation experiences.

Stanford University is known worldwide as an institution on the cutting edge of innovation and technology, so it is easy to understand why bringing autonomous vehicles to campus would be a natural

Our Recommendation

Table 1: List of Interviewees

<table>
<thead>
<tr>
<th>Undergraduate Students</th>
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</thead>
<tbody>
<tr>
<td>Science (S) – Stanford Undergraduate (Mathematical and Computational Science)</td>
</tr>
<tr>
<td>Math (S) – Stanford Undergraduate (Management Science and Engineering)</td>
</tr>
<tr>
<td>Diva (S) – Stanford Undergraduate (Computer Science)</td>
</tr>
<tr>
<td>Graduate Students</td>
</tr>
<tr>
<td>Pablo (S) – Graduate Student (Computer Science)</td>
</tr>
<tr>
<td>Eric (S) – Graduate Student (Computer, Environment and Atmospheric Engineering)</td>
</tr>
<tr>
<td>Navin (S) – Graduate Student (Electrical Engineering)</td>
</tr>
</tbody>
</table>

Table 2: Table Showing Various Interest Groups Value Time and Energy Efficiency vs. Safety of the Passenger and People Outside the ATV

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Table 3: Matrix Showing Various Interest Groups Value Time and Energy Efficiency vs. Safety of the Passenger and People Outside the ATV

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To: Persia Drell  
From: [Redacted]  
Date: February 26, 2019  
Subject: Transition to Autonomous Vehicles on Stanford’s Campus

The purpose of this memo is to provide guidance to Provost Drell regarding the potential replacement of all of Stanford University’s currently human-piloted vehicles with a fleet of autonomous vehicles (AVs). While there is great potential for autonomous vehicles to increase safety, reduce pollution and introduce greater economies of scale, careful planning is required in order to maximize the benefits while mitigating the downsides of transitioning to autonomous vehicles.

I. The Committee’s Recommendation

We (the committee) have found that autonomous vehicles hold great promise, but care is needed in navigating their potential pitfalls. With this in mind, we would like to emphasize a policy that places safety as the highest priority, which we have found to be in line with the Stanford community’s values. The initial adoption of autonomous vehicle technology should take place in multiple phases, perhaps by first testing the autonomous shuttle service only on certain sections of campus before extending it to larger areas.

In this memo, we will share the key insights unearthed by the committee’s research, including the key advantages and disadvantages of this policy to Stanford and the community, a framework for how to align the operation of these vehicles with the values of the Stanford community, and an inexhaustive decision-making roadmap that the university should follow in creating such a policy. In doing so, the committee hopes to elucidate the reasons behind its recommendation to transition to an autonomous fleet of Stanford vehicles, and offer supplementary information that you may find useful in your decision-making process.

II. Potential Advantages of Shifting to AVs on the Stanford Campus

The committee has identified a number of advantages that adopting this policy would have for Stanford, as summarized below. The areas of interest affected by each advantage (spanning ‘efficiency,’ ‘finance,’ ‘safety,’ ‘reputation,’ ‘public service,’ and ‘environment’) have also been listed at the end of each subheading.

a. Reducing accident rates [efficiency, safety, finances]

Autonomous vehicles can greatly reduce accident rates by minimizing human error and increasing communication between vehicles on the roads. This could help keep the Stanford community safer, boost efficiency by preventing obstructions in the flow of traffic, and save money by reducing vehicle repair and accident liability costs.

b. More efficient transportation [efficiency, finances]

Leveraging knowledge of real-time traffic conditions, the positions of other autonomous vehicles, and low error rates, autonomous vehicles will be able to travel at faster, cruise-controlled speeds. They could also operate at odd hours, mobilize automatically based on perceived demand and traffic conditions, and communicate effectively to prevent issues such as
3. What does a good one look like?

- Clearly articulated *purpose*, at the outset and in the beginning of every paragraph.
- Meaningfully incorporated *evidence* and perspectives of *diverse stakeholders*.
- Effective use of *formatting* (can you tell what’s going on with a quick skim?)
  - *Bulleted list can be helpful, as can popout boxes, summary boxes, etc.*
- *Thoughtful arguments* (and counter arguments, and rebuttals!)
  - *Use only the strong and important versions.*
- Reasoned *recommendations*, with an eye toward real-world implementation.
  - *Who’s in the task force? How will you enforce a ban?*
3. What does a good one look like?

- Put another way...(and in order!)
  - **Content.** Prioritize clarity, structure, precision, and linguistic efficiency. Include relevant information and arguments, but no irrelevant considerations. Data and facts (from your field work) need to work together with argument here. You might want to organize the memo around your recommendations.
  - **Structure.** Clarity and flow are key. Use headings and paragraphs.
  - **Presentation / Formatting.** Although it might first strike you as the thing that sets a memo apart from everything else, this is the least important aspect of good memo writing. Devote time to this at the end.
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- **Do** anticipate what you reader needs and wants in order to structure your memo. **Don’t** organize the material based on how you explored or learned about the topic (viz. your historical research journey).
- **Do** anticipate counterarguments, make them explicit, and offer explanations for why they do not change your recommendations. **Don’t** assume your recommendations are fool-proof!
Good luck!