**Prompt:** Supplemental question for **TPP applicants** only.

In your Statement, you have described for the Admissions Committee your motivations for, and the goals underlying, your application to the Technology and Policy Program.

In this Supplement, we want you to reframe thetesting- thesre presentation of your goals. Instead of speaking to an academic admissions committee, you should address a decision-maker who has authority and agency in your area of interest. We’d like you to describe how the kind of work you’d like to do at MIT will inform the policy problems they are facing. This should NOT be a simple recapitulation or rephrasing of your Statement. Rather, your statement should

1. (1) **identify a specific decision-maker and address them directly**
2. (2) concisely identify a problem that should concern them
3. (3) describe why research at the intersection of technology and policy is useful to address this problem.

Please limit your response to 750 words or less.

Dr. Alondra Nelson,

As the Deputy Director for Science— as nd Society within the White House Office of Science and Technology Policy (OSTP), you are well positioned to address the challenges presented by the amplification of misinformation online. Misinformation can be defined as false information shared without those amplifying it being aware of the inaccuracies, but examples are hard to identify. Furthermore, the direct connection between individuals, facilitated by social media, allows unv-- etted information to spread at unprecedented speeds. This has dramatic implications for OSTP’s policy objectives. For –example, in a recent interview, you noted that as a result of modern technologies, scientists were able to develop a COVID-19 vaccine at remarkable speeds. You stated that our inability to conquer the virus is thus not a result of our scientific capabilities, but rather due to the sociopolitical environment in which these advancements occurred. This mistrust of science and government is facilitated by online misinformation and extends to other OSTP policy areas, including climate change, artificial intelligence, and 5G technologies. These issues indicate the need for research to answer the question: *what mechanisms can be put in place to prevent the spread of online misinformation?* As I describe below, research at the intersection of technology and policy is necessary to answer this question because (1) policy research allows for the scoping of the complex challenges to effectively address the intricacies of misinformation spread; (2) a technical understanding of information sharing will help to ensure that proposed solutions are evidence-based; and (3) the interdisciplinary nature of technology policy research can allow multiple perspectives to complement each other with respect to information sharing.

One example of how policy research can effectively scope the complexities of misinformation sharing is by developing a practical definition of the term. Functionally characterizing misinformation can help to enable policy that identifies and curbs its spread. Current proposed misinformation legislation, such as the Health Misinformation Act, is criticized precisely for failing to provide this definition. OSTP could conduct a landscape analysis of relevant Federal and non-Federal policies on misinformation, which could then be synthesized to establish a practical interpretation of online misinformation. Through further research, this definition could then be adapted to apply specifically to health misinformation or other fields of interest to OSTP. In doing so, your office would establish the core foundations for addressing the amplification of misinformation as it exists across a range of policy areas.

The rapid spread of misinformation is a direct consequence of new technologies, such as the Internet, which enable novel forms of communication. As an example, a social media feed that prioritizes posts relative to who creates them, the number of user votes, or the content of the post does so by using ranking algorithms. These algorithms have direct implications on the content that Internet users see, which in turn influences their worldview. Thus, policy research into online misinformation must incorporate a technical perspective. As a science and technology office, OSTP could conduct a technical review of the current and emerging technologies underlying Internet communication. This review could then be used to inform policy on ethical standards—such as transparency and accountability in information sharing and accuracy in user content—in the future development of communications technologies.

Finally, technology and policy-oriented research is necessary to enable effective policy on misinformation spread because the issue is multifaceted. Without a multidisciplinary perspective of misinformation sharing, the entirety of the issue will never be addressed. To correct for this, OSTP could initially conduct a literature review of the various disciplines incorporated in misinformation sharing. This research could then inform interviews of relevant experts in each field—such as historians to understand past examples of misinformation; computer scientists and engineers to understand the technical (ABC) aspects of misinformation amplification; along with behavioral scientists to understand the social processes underlying misinformation sharing. In creating a cohesive narrative that accounts for the historical, technical, and behavioral perspectives of misinformation, OSTP would establish a multifaceted paradigm on which to base misinformation policy.

These points outline why technology policy research into the mechanisms that can prevent the spread of online misinformation is necessary. Within OSTP, your staff could use this research to gather the relevant Federal and non-Federal stakeholders to discuss the research and suitable solutions to the challenges presented. The information from these conversations, along with the initial research, could then be used to inform evidence-based policy that incorporates multiple perspectives. Through this avenue, effective policy that limits the spread of online misinformation can be achieved.