Ranking Member Maria Cantwell

Commerce, Science, and Transportation Committee Paper Hearing

Enlisting Big Data in the Fight Against Coronavirus

April 9, 2020

Opening Statement

We are conducting this hearing to examine how technology and information can help us in the fight against COVID-19 and how we can ensure that strong privacy protections are in place to protect the public. I want to thank Ryan Calo of the University of Washington, a nationally-recognized expert in this area, for providing his thoughtful testimony to the committee as we grapple with these complex issues.

I want to begin by saying thank you to all the health care workers and everyone on the front lines who are putting their lives on the line every day to save others. Our nation owes you an immeasurable debt of gratitude.

I also want to acknowledge the tremendous trauma and pain that so many Americans are experiencing right now. My heart goes out to everyone who has lost a loved one to this deadly virus and to everyone fighting it as we speak.

This pandemic is unlike anything most of us have faced in our lifetimes – a once-in-a-century challenge.

In my home state of Washington, researchers at the University of Washington, the Fred Hutchinson Cancer Research Center, and other cutting-edge institutions are leading the fight against COVID-19.

At the University of Washington School of Medicine, the Institute for Health Metrics and Evaluation (IHME) pioneered a multidimensional model focused on forecasting hospital and medical equipment capacity, one of the most critical challenges we face as we battle this virus. Not only are they constantly updating projections for all 50 states, but they are now providing projections for 29 European countries as well.

In the early days of the crisis, researchers at the Seattle Flu study acted quickly to adapt an existing test to include COVID-19, which helped us identify early cases in the community. Now, this study has formed the basis for the Seattle Coronavirus Assessment Network – or SCAN – which is modeling data to paint a detailed picture of where the virus is and how it is spreading.

Now we should be asking ourselves – how else can science and technology fight back against this pandemic?

Right now, we must ensure there are enough hospital beds, enough personal protective equipment, and enough ventilators and medical supplies to withstand the full force of this virus as it peaks in communities across our country. We need robust testing, and as the virus finally fades, we'll need to deploy contact tracing systems so that we can respond quickly to outbreaks and stamp it out for good. Data provides incredible insights that can assist us in these efforts, and

we should be doing everything possible to harness information in a manner that upholds our values.

To gain and keep the public's trust about the use of data, a defined framework should be maintained to protect privacy rights. That framework, at a minimum, should ensure that information is used: (1) for a specific limited purpose, with a measurable outcome and an end date, (2) in a fully transparent manner with strong consumer rights, and (3) under strict accountability measures.

We must always focus on exactly how we expect technology to help, and how to use data strategically to these ends. We must resist hasty decisions that will sweep up massive, unrelated data sets. And we must guard against vaguely defined and non-transparent government initiatives with our personal data. Because rights and data surrendered temporarily during an emergency can become very difficult to get back.

I believe there are three advantages to data that need to be harnessed at this time. They are the power to predict, the power to discover, and the power to persuade.

Data helps us build models based on what has come before. We can use these models to identify patterns to help us prepare for what might be next, whether those are predictions of where disease is spreading, estimations of community needs, or coordination of scarce resources.

Large publically available data sets also help us identify patterns and solutions that cannot be seen with a more fragmented, less complete picture. Discoveries and insights that once were hidden can now be brought to light with the help of advanced data analysis techniques.

And when there are vital messages to share, data allows us to get those messages out to everyone who needs to hear them. Messages about social distancing, exposure risks, and treatment options are just a few of the many types of essential communications that can be informed and enhanced by data analysis.

The world is now confronting a challenge of tremendous urgency and magnitude. At some point, we will be opening up our society and our economy again. First, we're going to need robust testing. And when that time comes, we're also going to need technology, powered by data, to help us safely transition back to a more normal way of life.

Our job in Congress is to help provide the tools needed to turn back this disease, and to understand how we marshal innovation and technology in a responsible way to respond to this challenge, both in the short term and for what we are starting to understand may be a very long fight ahead.

We are only at the beginning of this fight. We urgently need to plan for the days and, yes, the years ahead; we must discover, test, and distribute new cures faster than ever before; we need our greatest minds, wherever they may be, to collaborate and work together; and we must build unity because ultimately, that is our greatest strength.

We submit our questions to you in this spirit and look forward to the discussion.