U.S. Senator Deb Fischer's Remarks

How Policymakers Can Help Build the Internet of Things

December 4, 2014

Thank you, Dan, for your kind introduction. I appreciate the Center for Data Innovation's invitation to be here today. I'd also like to recognize the sponsors of this gathering who are investing time to educate policymakers and who are thinking creatively about the development of the "Internet of Things."

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Modern technological marvels have transformed the Yellow Pages and the telephone to a new reality of smart vehicles, the Internet of Things, and advanced communication systems. The next wave of technological solutions is just around the corner.

Mobile traffic is already 51 times greater than it was in 2008 and it's expected to grow eleven-fold between 2013 and 2018.[1] Before the iPhone was first introduced in 2007, mobile software applications didn't exist. As my good friend Senator King of Maine says, "just a few years ago software was a mink coat." Now it's estimated that the apps economy is responsible for 750,000 American jobs.[2]

Intel has calculated that in one minute on the Internet almost 200,000 apps are downloaded, 4 million Google searches happen, and 350,000 tweets are published.[3] And on average – every 60 seconds – tens of millions of text messages are sent while thousands of hours of online videos are watched.[4]

These numbers are staggering. And what these modes of communication all have in common is that they generally require some human input to send or gather information on our networks.

The information superhighway we know today is already at our fingertips and it's easy to underappreciate its potential for even bigger growth. But the Internet of Things brings even more potential with new paths to knowledge and data. This transformative innovation is different because it facilitates the collection, storage, and exchange of digital information to people and machines in an even more interconnected manner, sometimes automatically.

There's no denying its potential to connect tens of billions of objects, to generate trillions of dollars in value, and to contribute substantially to economic growth, productivity, and consumer welfare.

If properly channeled, the Internet of Things can be a game changer for the U.S. economy and for the American consumer.

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In many ways the Internet of Things is consumer empowering. Google's Vint Cerf, an early Internet pioneer, described the Internet of Things as a "feedback loop" – a means by which people "get feedback that tells you something about the consequences of the choices of your behavior."[5] The most obvious example of this is wearable devices such as Fitbit or sleep sensors that monitor how much you walk or what your sleep patterns are like to give you a measure of activity, goals, and other functions.

It gives people more information and better tools to analyze data to make more informed choices. It doesn't force consumers to make decisions. It gives them new insights into their daily lives and business operations.

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In this discussion, I think the main question we have to ask ourselves is: Who is going to see the benefits that result from the Internet of Things? Will it be the United States, China, India, or someone else?

This question is important because of the possibilities of the technology and how its potential will be shaped by public policy. With the explosion of big data and increased connectivity, our immediate attention and careful analysis are required.

One study concluded that in 2013, 90 percent of all data in the world had been generated in the previous two years.[6] That's one of the reasons why I've taken a leadership role in introducing a series of bills to help keep the United States ahead of the global innovation curve.

One bill I introduced is the Helping Innovation and Reviving Entrepreneurship (HIRE) Act. It would promote opportunities by requiring the Federal Communications Commission to approve new technology applications within a year. This introduces accountability and speeds up government responsiveness to new technology applications.

I also introduced the E-LABEL Act. It modernizes labeling requirements for electronic devices, such as smartphones, computers, and tablets. I am proud to say the president signed E-LABEL into law last week.

Likewise, low-risk health IT deserves a modern regulatory regime – one that promotes innovation, supports jobs growth, and protects patient safety. The mobile health and applications market is growing rapidly. This is a sector that needs clear rules to foster commerce and improve people's lives.

That's why I introduced the PROTECT Act. It would codify the common-sense idea that new technologies shouldn't be tied up with old red tape.

You may not realize this, but, at present, the Food and Drug Administration (FDA) relies on a 1976 legal definition of the term "medical device" in order to impose regulations on a host of new, low-risk technologies like software and mobile apps.

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In order for Americans to receive the maximum benefits from increased connectivity, there are two things the government must avoid.

First, policymakers can't bury their heads in the sand and pretend this technological revolution isn't happening only to wake up years down the road and try to micromanage a fast-changing, dynamic industry.

Second, the federal government must also avoid regulation just for the sake of regulation. We need thoughtful, pragmatic responses and narrow solutions to any policy issues that arise.

For too long, the only "strategy" in Washington policy-making has been to react to crisis after crisis. We should dive into what this means for U.S. global competitiveness, consumer welfare, and economic opportunity before the public policy challenges overwhelm us, before legislative and executive branches of government – or foreign governments –react without all the facts.

Ultimately, businesses and consumers want certainty. People want to be able to invest in a product with some degree of confidence that their government won't arbitrarily stifle the opportunities they're trying to create.

Finally, I think it's entirely appropriate for the U.S. government to think about how to modernize its regulatory frameworks, consolidate, renovate, and overhaul obsolete rules. We're destined to lose to the Chinese or others if the Internet of Things is governed in the United States by rules that pre-date the VCR.

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There's no shortage of policy issues that deserve consideration – the main ones obviously being privacy and security – but the question is whether we do it in a thoughtful way and in a way that weighs the costs and benefits of increased connectivity for businesses, consumers, and the economy.

Today's forum gives us the perfect opportunity to jump start this work. And I can say a bipartisan group – Senators Thune, Booker, Ayotte, Schatz, and I – will be looking forward to facilitating these conversations in the Senate Commerce Committee early next year.

As we prepare to explore smart ways to help shape the Internet of Things and realize its benefits, I welcome you to reach out to my office. Thank you again for this opportunity and I hope all your discussions today will be productive.

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[1] CTIA – the Wireless Association, "A Mobile Approach to Net Neutrality."

[2] Michael Mandel, "752,000 App Economy Jobs on the 5th Anniversary of the App Store," *Progressive Policy Institute*, July 8, 2013, http://www.progressivepolicy.org/slider/752000-app-economy-jobs-on-the-5th-anniversary-of-the-app-store/.

[3] Intel, "What Happens in an Internet Minute," http://www.intel.com/content/www/us/en/communications/internet-minute-infographic.html.

[4] Tracy McVeigh, "Text Messaging Turns 20," *The Guardian*, December 1, 2012, http://www.theguardian.com/technology/2012/dec/01/text-messaging-20-years.

[5] Sanford Reback, "Deconstructing the Internet of Things," *Bloomberg Government*, October 29, 2014.

[6] Vint Cerf, "Federal Trade Commission Internet of Things Workshop" November 19, 2013, http://www.ftc.gov/sites/default/files/documents/public_events/internet-things-privacy-security-connected-world/final_transcript.pdf.