Promoting an Internet of Inclusion:  
More Things AND More People

Remarks of Commissioner Maureen K. Ohlhausen*
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I am delighted to have the opportunity to set the stage for this panel discussion about the Internet of Things, which has the potential to transform many fields, including home automation, medicine, and transportation, as the exhibits at this year’s Consumer Electronics Show demonstrate in so many dazzling ways.

The growing interconnectedness of everyday life has spurred much lively debate. Recently, Balaji Srinivasan, co-founder of the genomics company Counsyl, argued that Silicon Valley should use such technology to exit the U.S. regulatory establishment and leave behind those who have resisted technological changes.1 Although he raises some interesting points about regulation and innovation, I take issue with the goal of using technology to separate the tech-savvy people from those who may not immediately understand or embrace its benefits. Instead, I prefer to focus on the power of technology to include people who may not otherwise have easy access to information, services, entertainment, and education, because of location, inclination, education, or other reasons. In my view, one of the great promises of the Internet of Things is not just that it connects more things to the Internet—it will also connect more people to the Internet, and ultimately, to each other.

A more pervasive Internet has great potential to help provide hard to reach groups—like those in rural areas, the elderly, or the poor—with the kinds of services available to people in places like Silicon Valley. To focus on just one of many examples, consider how remote diagnoses and medical monitoring through phone handsets or wearable devices may provide populations located far from a doctor or the homebound with the kinds of medical care and expertise available to those with easy access to Stanford Hospital. Rather than using new technologies to escape society and regulation, we should point out the incredible potential of innovative new technologies to benefit society (including society’s most vulnerable) as compelling evidence for adopting a regulatory regime that allows innovation, even disruptive innovation, to thrive.

As an FTC Commissioner, there are policies that I can encourage my agency to pursue to help facilitate the successful proliferation and adoption of these technologies. The success of the Internet has, in large part, been driven by the freedom to experiment with different business models, the best of which have survived and thrived, even in the face of initial unfamiliarity and unease about the impact on consumers and competitors. It is thus vital that government

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*The views expressed in this speech are my own and do not necessarily reflect the views of the Federal Trade Commission or any other Commissioner.

1 Y Combinator, Balaji Srinivasan at Startup School 2013, YouTube (Oct. 25, 2013), http://www.youtube.com/watch?v=cOubCHLXT6A.
officials, like myself, approach new technologies with a dose of regulatory humility. We can accomplish this by educating ourselves and others about innovation, understanding its effects on consumers and the marketplace, and identifying benefits and likely harms. If harms do arise, we should carefully consider whether existing laws and regulations are sufficient to address them before assuming that new rules are required. Thus, I am pleased that the FTC recently held a workshop to better understand how to achieve the benefits of the Internet of Things while reducing risks to consumers. The opportunity to educate myself about new technologies is one reason why I am quite enthusiastic about participating in the Consumer Electronics Show. Another reason is that it makes my technophile children treat me with more respect.

A policy issue that is front and center in the FTC’s agenda is consumer privacy and data security. Dave Eggers’ recent novel, The Circle, describes a world where “Your devices knew who you were, and your one identity—the Tru You, unbendable and unmaskable —was the person paying, signing up, responding, viewing and reviewing, seeing and being seen.”

The Circle, which in the book is the world’s most influential company, has the philosophy that “secrets are lies,” “sharing is caring,” and “privacy is theft.”

Although The Circle is fictional, the novel reflects a real concern shared by many about a loss of privacy. Because interconnected devices and services often collect and share large amounts of personal information, policymakers and members of the tech community must be sensitive to consumer privacy and data security issues. It is thus crucial that companies offering these products as part of the Internet of Things act to safeguard the privacy of users to avoid giving the technology a bad name while it is still in its infancy.

You may have heard about a recent FTC case that exemplifies the kinds of data security risks that the Internet of Things may present. In September, the FTC settled a case against TRENDnet, which sold its Internet-connected SecurView cameras for purposes ranging from home security to baby monitoring. Although the company claimed that the cameras were secure, they actually had faulty software that allowed unfettered online viewing by anyone with a camera’s Internet address. As a result, hackers posted live feeds of nearly 700 consumer cameras on the Internet, showing activities such as babies asleep in their cribs and children playing in their homes. The FTC found that TRENDnet’s practices were both deceptive and unfair. The type of consumer harm we saw in the TRENDnet case—surveillance in the home by unauthorized viewers—feeds concerns about the Internet of Things overall.

Mobile devices also play an important role in the Internet of Things as they collect, analyze, and share information about users and their environments, such as their current location, travel patterns, speeds, and the noise levels in their surroundings. This raises questions of how businesses should convey on the small phone screen information about what data, sometimes of a sensitive nature, that these devices and apps collect, use, and share.


One case that has implications for the Internet of Things involved an app that collected information from consumers’ address books on their mobile phones without the consumers’ knowledge or consent. The FTC settled a complaint against Path, a social networking company, for this activity. As this case suggests, the collection of personal information from a consumer’s mobile phone without disclosure or permission may be a deceptive or unfair practice under the FTC Act. This has obvious implications for other Internet-connected devices that collect personal information about users, and prudence suggests that such technologies should include some way to notify users and obtain their permission.

Using the traditional notice and choice paradigm becomes even more complicated for devices with a limited or no user interface. For example, activity trackers such as the FitBit Force and the Jawbone UP have only very basic user interfaces on the device itself. Other connected devices, such as smart lightbulbs, may not have any consumer-facing user interface at all. Addressing consumers’ privacy concerns over such devices will present business, engineering, and policy challenges that will require constant innovation from all of you and from regulators.

The Internet has evolved in one generation from a network of electronically interlinked research facilities in the United States to one of the most dynamic forces in the global economy, in the process reshaping entire industries and even changing the way we interact on a personal level. And the Internet of Things offers the promise of even greater progress ahead for consumers and competition.

In this dynamic environment, the FTC’s approach of doing policy R&D to get a good understanding of the technology, educating consumers and businesses about how to maximize its benefits and reduce its risks, and using our traditional enforcement tools to challenge any harms that do arise offers, in my opinion, the best approach. This type of informed action will maintain a federal role in protecting consumers and ensuring a level playing field for competitors while allowing free markets and technological innovation to connect more things and more people to the Internet and to each other.

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