Thank you, Jamie. I am delighted to be here today to open the FTC’s workshop on drones and privacy. Thank you also to all the participants and attendees. I hope you find the discussion interesting and educational. I also want to thank the staff for their considerable efforts in organizing this workshop. As a former head of the FTC’s Office of Policy Planning, I know how much work it takes to put together a major workshop like this. While my remarks today are my own and do not necessarily reflect the views of other Commissioners, I am certain my colleagues share my gratitude for such hard working and talented staff.

Let’s start with some history. This stunning picture of San Francisco was taken from an Unmanned Aerial System – in 1906!2 This is one of the most famous pictures of the aftermath of the 1906 earthquake, which was the first widely-photographed natural disaster. Photographer George Lawrence strapped a 49 lb. custom-built camera to a string of large kites and sent it up 2,000 feet over the San Francisco Bay to get this new perspective on the situation.

Lawrence used cutting edge technology of his day. Very few could afford or operate such devices. Today’s drones put far more powerful technology into the hands of many. And as drones grow increasingly accessible to both commercial and hobbyist users, news stories have

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1 The views expressed in these remarks are my own and do not necessarily reflect the views of the Federal Trade Commission or any other Commissioner.
covered incidents of bad behavior by drone operators, academic articles have outlined potential harms and posited solutions, and legislators and regulators have evaluated their own options. In short, a conversation has begun, and today’s workshop will contribute to it.

**Gaining Perspective on Social Adaptation to New Technology**

My goal today is to quickly zoom up and out, like Lawrence’s photo, to provide a very high level view of this conversation about drones and privacy. Specifically, I want to place this conversation in the context of the much longer conversation about the privacy impacts of new technologies.

New technologies often have major social implications, including for privacy. Indeed, it often seems that the more transformative a technology and the greater its potential benefit, the greater the concern about the social implications. As society adapts to new technologies, such concern often generates and drives policy conversations. These conversations are an important part of the cycle of social adaptation to technological change. In that cycle, a new technology first prompts societal *resistance*, then gradual *adoption*, and finally *assimilation*.3 Through this process, society adapts.

This cycle has occurred over and over again in the area of privacy. Although society adapts differently to different technologies, such adaptations often include changes to social norms and sometimes changes to law or policy.

One terrific example of this cycle is captured in Samuel Warren and Louis Brandeis’s influential article titled “The Right to Privacy.”4 They wrote that article in part as a reaction to how reporters and others were using the then new technology of portable cameras.5 They opined

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5 *Id.* at 195.
that, “instantaneous photographs … have invaded the sacred precincts of private and domestic life …”\(^6\)

Warren and Brandeis wrote those words in 1890, 16 years before Lawrence took the photo of San Francisco. Society has long since assimilated the particular wave of photographic technology with which Warren and Brandeis were concerned. In part due to their article, courts developed common law privacy torts such as intrusion upon seclusion. States adopted “peeping Tom” statutes. And people developed social norms about when and where photographs are acceptable.

Still, Warren and Brandeis’s concerns echo today in the words of those worried about how drones will impact privacy. Perhaps that should not be surprising, given that drones can be used as flying platforms for sensors, including cameras. In any case, it is clear that we are in a new cycle of technological adoption, and today’s workshop is part of the conversation about how we adapt.

**Status of the Conversation**

But what has been said about drones and privacy before today? First, many talk about the clear potential of drone technology to benefit consumers and the economy. Drones are already being used to quickly and cheaply survey real estate, monitor unsafe areas such as forest fires or construction sites, and gather important news. New and innovative uses are emerging every day.

In addition, there has been significant news coverage about drones and privacy. Many of these stories cover cases of misbehavior by individual drone operators using their machines in “creepy” ways, or people’s hostile reaction to being filmed by drones. Some of these stories discuss law enforcement use of drones and the potential impacts on civil liberties and

\(^{6}\) *Id.*
constitutional rights. In response, multiple states legislatures have sought to address such
concerns by setting restrictions on how law enforcement may use drones.7

On that point, let me note that at the FTC, our enforcement jurisdiction is limited to “act
or practices in or affecting commerce,”8 which probably excludes most cases of individual
“peeping Toms” and certainly excludes law enforcement or national security uses of drones. So
keep that in mind during today’s presentations.

At the federal level, several other agencies have contributed to the conversation about
drones and privacy. The Federal Aviation Administration considered (but eventually declined to
adopt) specific privacy rules for drones.9 The Department of Commerce, through the National
Telecommunications and Information Administration, hosted a multi-stakeholder process to
“develop a framework regarding privacy, accountability, and transparency for commercial and
private UAS use.”10 They subsequently issued a set of voluntary best practices.11

Today’s workshop will build on these efforts and continue the conversation. The FTC is
the primary privacy law enforcer in the US. In addition to our enforcement docket, we use a
wide range of other tools to protect consumer privacy. I see today’s workshop as a continuation
of our long-standing efforts to educate ourselves and the broader public on the consumer
protection implications of emerging technologies. We strive to “get it right” when we enforce
the law, and we seek to apply the same rigorous approach to our workshops. We want to hear

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9 Press Release, DOT and FAA Finalize Rules for Small Unmanned Aircraft Systems, June 21, 2016,
10 See Presidential Memorandum: Promoting Economic Competitiveness While Safeguarding Privacy, Civil Rights,
and Civil Liberties in Domestic Use of Unmanned Aircraft Systems, Section 2(b), Feb. 15, 2015,
https://www.whitehouse.gov/the-press-office/2015/02/15/presidential-memorandum-promoting-economic-
competitiveness-while-safeguard.
11 NTIA, Voluntary Best Practices for UAS Privacy, Transparency, and Accountability, May 18, 2016 (Updated
from all sides. We want to understand technological trends, the existing and potential benefits and possible consumer protection issues, and the legal and economic environment.

Today’s presenters and panelists will discuss the details of drone technology, consider whether drones raise unique privacy concerns, offer research on consumer perceptions of drones, and finally debate potential privacy approaches. While these panels will focus on detailed topics, I hope that all participants in the ongoing conversation about drones will keep a sense of perspective. I hope they’ll zoom out occasionally, climb to the 2,000-foot view, and stay aware of the larger cycle of technological assimilation and the variety of strategies – including non-governmental – that society uses to adapt to new technologies. Such awareness will help focus government efforts where they are most needed and effective.

Thank you, and I look forward to today’s conversation.