



1 HACKER WAY
BLDG 18
MENLO PARK, CA 94025
TEL. 949-274-9947

May 13, 2016

The Hon. Al Franken
United States Senate
Washington, D.C. 20510-2309

Dear Senator Franken:

We appreciate this opportunity to respond to the questions in your April 7, 2016, letter, and to introduce you to Oculus and our mission to enable people to experience anything, anywhere, with anyone, through the power of virtual reality (“VR”). Oculus is proud to be a part of the community that’s building VR technology and the transformative experiences it can enable for people around the world. We recognize that privacy and security are essential to creating this future.

At Oculus, we believe that maintaining people’s trust is critical to the long-term growth of not just our company, but the entire VR community. It’s why privacy and security are core to our product and company principles. Our approach to protecting people’s information permeates every aspect of our organization. The day new employees arrive, they participate in privacy and security training, and it’s a key part of the product lifecycle, where Oculus conducts ongoing privacy risk assessments and security testing. We also explain to people how we collect, use, and share information in our privacy policy, which we’ll continue to update as we build and improve our products and services.

While there is no doubt that VR enables a uniquely immersive gaming experience, one reason we’re so passionate about VR is that the technology promises to create more inclusive, engaging—and, over time, affordable—opportunities for people around the world, regardless of who they are or where they live. Imagine being able to host a business meeting or attend a college class and feel like you’re really there with other people, simply by putting on a headset. For people who cannot easily travel, VR empowers them to visit the Grand Canyon or experience the Boundary Waters from their living room. A high school student embarking on the college application process could virtually visit distant campuses, saving the student time and money. VR promises to give people experiences that, as of today, have only been available to very few.

VR will also create jobs and drive economic growth. A recent study by Analysis Group found that the economic potential for VR over the next five years alone could be tens of billions of

dollars.¹ VR can also be a unique training tool to help people do their jobs better. For example, doctors can give medical students a rare window into what it's like to perform a surgery by capturing it on a 360 camera so students can study the movement and process as if they were really in the operating room. In short, VR technology holds extraordinary potential to create a more open and connected world, an overarching goal we hold in common with Facebook, our parent company.

To realize this potential, Oculus has designed an innovative platform to bring VR experiences to people. Oculus Rift and Samsung Gear VR, powered by Oculus, are the initial hardware components of the platform. Rift allows people to experience highly immersive virtual reality that's powered by a PC. Gear VR gives people an affordable and portable VR experience using a Samsung headset and a Samsung Galaxy smartphone running Oculus software. Oculus built a platform supporting these hardware devices that allows developers to build immersive VR experiences, including games, movies, and other VR experiences. Oculus has built some of these experiences, and there's a thriving ecosystem of third-party developers building VR content for the Oculus platform. Delivering VR to people requires collaboration among all these components of the ecosystem.

Our responses to your specific questions appear below.

1. Oculus has stated that it automatically collects users' location information. Is this collection necessary for Oculus to provide services? Are there any other purposes for which Oculus collects this information? Does Oculus share this information with third parties, including its "related companies", for any other purpose than the provision of services?²

Oculus currently collects and uses location-based information that is limited to general location information, such as time zone and country-level information. This location information is necessary for Oculus to provide services to people around the globe. For example, we need to collect location information to ensure that certain apps and content are only available in specific countries due to developer restrictions or differences in local law. Location information also allows us to ensure that people receive relevant experiences based on where they live. Additionally, it allows us to present people with content in their local languages, products priced in their local currency, and notifications—such as a notice about the availability of a relevant software upgrade—at reasonable times of day. In the future, we anticipate that we will explore building new features that may allow people to use their location to improve their experiences. For example, we want to improve our infrastructure by taking people's locations into account when choosing which servers people connect to. This can help reduce the latency of people's communications with each other using Oculus. These efforts—like our other efforts

¹ Analysis Group, The Global Economic Impacts Associated with Virtual and Augmented Reality (2016) <http://www.analysisgroup.com/news-and-events/news/analysis-group-team-issues-report-estimating-projected-global-economic-impact-associated-with-the-spread-of-virtual-and-augmented-reality-technology/>.

² Third party developers may also collect location data through their apps or other VR experiences, independent of Oculus.

to build new products and services—will incorporate privacy and security considerations from the beginning.

Beyond leveraging Facebook’s infrastructure to provide people with the Oculus services they request—which we discuss further in response to question 4—Oculus does not currently share location information with third parties or our related companies.

2. Oculus has stated that it automatically collects users’ physical movements and dimensions. Is this collection necessary for Oculus to provide services? Are there any other purposes for which Oculus collects this information? Does Oculus share this information with third parties, including its “related companies,” for any other purpose than the provision of services?

Yes, Oculus collects physical movements and dimensions as a necessary tool to deliver a safe, comfortable, and seamless VR experiences to people. For example, the Oculus Toybox application allows multiple people to pick up and play with virtual objects together, even if the people are in different parts of the world. To accomplish this complex computational activity, we need to know a person’s hand position and orientation. When people play ping pong, for example, Oculus needs to understand the direction, speed, and angle of a person’s hand motion to determine if the ping pong ball will reach the other person or careen wildly off the virtual table. This real-time transmission of lifelike movements into a digital environment is not only necessary to providing our services, it is the core of providing an immersive and realistic virtual reality experience.



Oculus also collects information about physical dimensions to help improve its services. For example, calibrating a device to account for the distance between a person’s eyes improves the clarity and focus of images in VR. Accounting for that distance also helps Oculus optimize comfort in VR for individual people and will help us build devices that can accommodate the unique characteristics of the people that use our services. Likewise, we need to know the relative

height of the headset to determine whether someone is sitting or standing, which changes the experience we deliver. We would be happy to provide you with a demonstration of the Rift, so you can experience the benefits of these data points firsthand.

Information about movement and physical dimensions may be provided to our developers, including Facebook, so they can deliver experiences that better respond to people's physical movements, which is a critical feature of a good VR experience. Although Oculus developed the Toybox application discussed above, people can download content and applications through the Oculus platform from a variety of developers. To create Toybox-like experiences that replicate people's behavior in virtual reality, these developers need information about the movement and position of individuals, just like Oculus does to deliver Toybox. For example, Facebook offers Oculus users an opportunity to view 360 videos and photos – which allow people to pan and rotate images just as they might in the real world—through the Oculus platform. In order to ensure that people are viewing the best possible video quality no matter where they are looking, Facebook needs to know which direction people are facing.

3. Oculus has indicated that it stores communications among Oculus users and any information associated with such communications. Is this retention necessary for the provision of services? And for how long will Oculus retain this data?

Oculus—like any gaming or entertainment platform—is better with friends; accordingly, Oculus facilitates many different ways for people to communicate with each other and retains this information to provide its services. One example is the Oculus support community, a forum where people can interact with each other by posting messages, responding to other postings, and seeing what others have written. Because these forum posts are intended to be an ongoing source of publicly available information about Oculus, Oculus stores these posts and continues to make them available on the forums until a person deletes his or her account or requests that an administrator delete them.

We also offer people opportunities to communicate with other people in real-time. This includes, for example, Oculus Social, an app that allows people to watch videos with others and communicate with one another over Voice Over Internet Protocol (VOIP). While Oculus may retain records that certain people connected, we do not store the content of these communications beyond the temporary caching necessary to deliver these communications to people who could be in different parts of the world.

In the future, we or the developer community may develop new experiences or improve existing products that will require us to store communications. For example, developers may create an app that lets people record or broadcast content in VR. Our Medium application will also allow people to create three-dimensional sculptures and paintings and share their creative sessions with others. In these scenarios, Oculus will need to store communications to deliver content as requested by the user.

4. Given that the data-sharing relationship between Oculus and its related companies is not readily apparent to Oculus' customers, in your view, which company is responsible for providing information about this relationship to consumers? Which company is responsible for providing security information to consumers?

In 2014, Oculus joined the Facebook family of companies. We've been very clear about our relationship with Facebook since the acquisition was publicly announced and widely covered in global media.³ Since then, we've reinforced our relationship with Facebook through several announcements and events, including inviting Mark Zuckerberg to speak last year at our global developer conference, Oculus Connect.

Our relationship with Facebook provides substantial benefits to people who use our services. For example, we use Facebook's existing global computing infrastructure to make Oculus available to people using servers located around the world, helping ensure a consistent, fast, and secure VR experience. We also take advantage of Facebook's expertise in other areas, including its large team of privacy and security professionals to help design and maintain privacy and security in our products. These collaborations allow Oculus to focus on what we do best: delivering the absolute best VR products and experiences.

We work hard to make this relationship clear to people who use our services and to provide information about our privacy and security practices. For example, our privacy policy lists the members of the Facebook family of companies and states that Oculus may share information with and receive information from them. People must agree to the privacy policy before they use our services and it is available as a link at the bottom of the Oculus website so they can access it easily, anytime. In addition to providing people with information about our privacy and security policies, the Oculus privacy policy invites people to contact us with any questions about those policies.

Facebook also provides information about the Facebook family of companies. Similar to Oculus, this disclosure is included in Facebook's data policy, which people must agree to as part of using Facebook. The Facebook website also includes numerous blog posts about Oculus, and Facebook's CEO Mark Zuckerberg frequently posts to his over 60 million followers about Oculus and speaks about it publicly.

5. Oculus has indicated that it shares de-identified and aggregate data with others for any purpose. Does Oculus currently sell this information to third parties? Can you specify purposes for which you'd share or sell such data?

Our goal is simple—to build the best VR products and experiences for people. To achieve this goal, we share data as necessary to provide our services and enhance the availability of relevant VR products for people. This includes sharing statistics that are aggregated or de-identified with developers to help them understand how to build the best VR content, which results in better app development, and improves the overall experience for people and our community. For example, we might provide developers with aggregate statistics about the percentage of users who stand or sit while they play a game, so they can develop future experiences to suit the mobility of their audience and the amount of space they will use in VR. We also may use aggregated data in public statements, such as reporting the number of people using VR in a particular region, so developers can create content tailored for people in that market.

³ For example, Nick Wingfield and Vindu Goel, "Facebook in \$2 Billion Deal for Virtual Reality Company." *New York Times*, March 25, 2014.

Of course, these efforts—like our other efforts to build new products and services—are subject to our privacy review process and the other privacy protections discussed above.

6. Oculus’s privacy statement provides the following with respect to information security: “[N]o data transmission or storage can be guaranteed to be 100% secure. As a result, while we strive to protect the information we maintain, we cannot guarantee or warrant the security of any information you disclose or transmit to our Services and cannot be responsible for the theft, destruction, or inadvertent disclosure of information.” What precautions does Oculus currently have in place to ensure the security of consumers’ data?

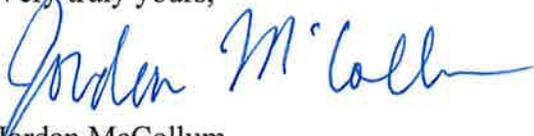
Security is critical to the success of Oculus and the VR industry. Oculus has implemented numerous state-of-the-art security systems designed to protect people’s information and keep our networks secure. Oculus protects people’s data using teams of engineers, automated systems, and advanced technology that makes use of encryption and machine learning. For example, as we referenced earlier, Oculus relies on Facebook’s data centers and technical infrastructure to host the Oculus platform, and this allows us to leverage Facebook’s industry-leading security measures, including a robust physical security presence and use of sophisticated tools to ensure that no data storage device leaves our custody with any user data on it. Oculus also leverages a team of over 200 security professionals at Facebook to help keep information safe and participates in regular security audits. Additionally, Oculus employees go through mandatory security and privacy trainings.

Oculus also guards against security threats with vulnerability management procedures designed to identify and mitigate risks and ensure the security of its systems. These procedures include drills that simulate malicious attacks and are designed to test security precautions. Oculus also participates in a world class bug bounty program, which pays independent security researchers who discover vulnerabilities on the Facebook family of companies’ websites, infrastructure, or code. The program has paid out millions to date, and has helped identify and deploy solutions to high-impact submissions within mere hours of receipt. Oculus’s systems and services also benefit from Facebook’s automated systems that work to detect any unusual or suspicious activity across our corporate servers, network devices, laptops and workstations, and production servers.

* * *

We believe VR has the power to change the world by enabling people to experience anything, anywhere, with anyone, and know that this will only be possible if we invest in the security of our community. We welcome the opportunity to demonstrate the Oculus technology to you so you can experience the revolutionary potential of VR and the benefits discussed here. We would welcome any further questions you may have.

Very truly yours,

A handwritten signature in blue ink that reads "Jordan McCollum". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jordan McCollum
Oculus General Counsel