





RAY-BAN STORIES

Bystander privacy in a world of wearable cameras





- What are Smart Glasses?
- How Do They Work?
- How Will They Affect My Privacy?
- Risks & Responsibilities
- The Future of Smart Glasses



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Meta and Ray-Ban have partnered on a new product called "Ray-Ban Stories," the companies' first generation of smart glasses.

People using the glasses can activate the camera by pressing a capture button on the top of the earpiece stem.

Alternatively, users can use a verbal command with Assistant, which they can activate by saying the wake word "Hey Facebook," or using the touchpad on the side of the earpiece stem.

Images and video from the glasses can be uploaded to a companion iOS or Android app called Facebook View and from there shared to Facebook and Instagram, other apps, or saved to the phone's camera roll. (The glasses do not livestream.)

When connected by Bluetooth, users will be able to listen to music and other sound from speakers in the glasses' stems. You can also use the glasses to speak on the phone, but you must initiate or answer the call from your smartphone.

For the user, these and other smart glasses such as Snap Spectacles make it possible to photograph or video what's in front of them without having to reach into their pocket for a phone or digital camera. Vuzix, Google, and Epson also offer smart glasses, though their products are designed mostly for business and professional use.

Risks & responsibilities

This relatively new product category brings up questions regarding safety for the user and privacy for anyone who happens to be near someone using the glasses. Users need to follow certain safety rules, like not allowing them to distract you while driving and not using the glasses inappropriately, such as taking images of people without their consent or in private spaces, like locker rooms or bathrooms.

But even if you don't own a pair of these glasses, you have reason to be concerned about how they impact your privacy and the privacy of others.

It's not a new concern. When Kodak introduced its first hand-held camera in 1888, some people panicked over what it would mean for personal privacy. In 1901, the New York Times reported how President Theodore Roosevelt admonished a boy using a Kodak to take his picture as he exited a church. "Trying to take a man's picture as he leaves a house of worship. It is a disgrace. You ought to be ashamed of yourself," he reportedly said.

Fast forward to 1997 and the invention of the camera phone. That innovation ushered in a new and exciting world of photography but smartphones, which are now ubiquitous and can take pictures and video in ways that may not be as obvious as a stand-alone camera, sparked a new era of concern over the ability to surreptitiously take pictures and videos and record audio.

There are now smartwatches with cameras, along with devices like GoPro, that can be worn on clothing along with millions of closed-circuit security cameras on storefronts, public buildings, and private homes. Safety.com found that the average American is "filmed" by security cameras over 230 times a week.

Social norms are protective

Social norms discourage the use of any type of recording device or camera without the consent of anyone being photographed, and—for the most part—people abide by those norms. But there are some notable exceptions, such as law enforcement, investigative journalism, and use by bystanders of crimes. Had it not been for a smartphone video taken by then 17-year-old Darnella Frazier, the police officer who murdered George Floyd might not have been convicted. There are numerous examples where bystanders have used cell phones to document human rights abuses.

And, though smart glasses are in their infancy, we have every reason to believe they too will mostly be used in an appropriate manner. But, as with any technology, there remains the possibility of abuse. That's why it's important for everyone—whether you own a pair of smart glasses or not—to be aware that they are now part of our environment.

Why people get smart glasses

The vast majority of people who own smart glasses will use them responsibly. You might be a parent wanting to capture images of your child at play quickly. You might be a pet owner looking for that perfect and hard-to-get shot of your best friend. A parent at a soccer game can snap a picture of their budding athlete while holding a sippy cup in one hand and a child in the other. There are also numerous professional applications, including surgery, physical therapy, operating machines, performing maintenance work, and much more.

The point is that if you see someone wearing smart glasses, chances are very good that they are doing so for a legitimate reason.

How to know if someone is capturing images or video

The Ray-Ban Stories smart glasses have a white LED that lights up when taking a picture or recording and, according to Meta, can be seen from 25 feet away. The light flashes for a still image and remains on while video is being captured. Audio is captured along with video, but the glasses do not record audio except as part of a video recording.

While the light is prominent, there is always the possibility that someone might not know why they are on, which is why it's important to educate yourself and others on how these glasses operate. It's also good to understand how the user can trigger a picture or video.

Although it would be irresponsible, a wearer could put tape over the LED and because these glasses look pretty much like standard eyeglasses or sunglasses, it's possible that someone might not be aware that they are being used to take a picture.

At the end of the day, if someone is intent on capturing a picture of you, there's a pretty good chance that they'll be able to do it—whether with a phone, glasses, wearable camera, or some other device.

How to Use Ray-Ban Stories Responsibly



- Never take pictures or video or record audio of people without their permission (with the possible exception of recording human rights abuses and other horrific crimes).
- Do not use your glasses (turn them off or take them off) in private spaces such as locker rooms, public bathrooms, doctor's offices, while in line at a pharmacy, places of worship or any other location where it would be inappropriate to use a device with a camera and microphone. Always obey local laws and business policies.
- Do not use your glasses to capture confidential or private information (such as PIN codes and sensitive documents) or to violate copyrights in entertainment venues, museums, and other locations.
- Always be aware of what is in the background of any photo or video, including other people's property or anything that could identify your location or others' locations.
- Remember that if your content is uploaded to Facebook or Instagram or any
 other social media service, it must meet that platform's community standards.
 The standards typically prohibit nudity (even if consensual), hate speech or any
 other form of harassment. There might also be consequences from your school
 or employer. Posting illegal material could result in prosecution.
- Avoid capturing images or video in any place where it may endanger you or others, including while driving or operating machinery. While the glasses can be used to capture walks and certain sporting activities, always focus first on your activity and your safety to avoid accidents that could cause harm to you or others.

No livestreaming or audio-only recordings

The Ray-Ban Stories smart glasses cannot be used for livestreaming, and recordings are limited to 30 seconds each. Images and videos cannot be uploaded or shared directly from the glasses. The user must first transfer the files to the Facebook View app on their smartphone and then share them via text messaging, email, or social media. Images can be shared, but it cannot happen in real-time.

The device can only capture audio as part of a video or while engaging with the voice assistant. It cannot be used to make audio-only recordings.

The future of smart glasses

Because Ray-Ban Stories glasses are from Meta and Ray-Ban (owned by Luxottica—the world's largest eye-wear maker), the product is likely to get a lot of attention. But it and other smart glasses will continue to evolve over time with future products from other companies.

As technology evolves, expect to see even more sophisticated smart glasses, many with augmented or mixed reality, computer-generated images with a view of the real world. Imagine standing looking at the White House from Pennsylvania Avenue and peering back through time, watching Abraham Lincoln carry out his duties. Or you could be looking at art in a museum or a book and get a full description of what you see.

Already there are industrial and medical applications where smart glasses are used for training and education, real-time collaboration, public safety, to assist in surgery, or help an airline mechanic know exactly where to insert a part. Just as early personal computers and smartphones have evolved, so will smart glasses in ways that we can only imagine.

Closing thoughts

We live in a world where there are cameras in nearly every pocket and on every block. This poses challenges when it comes to protecting your privacy in public. You can't walk down a street (even a residential street with doorbell and driveway cameras) without the possibility of having your picture taken. It's our new reality.

However, we can and, for the most part, do enjoy privacy in private spaces, despite the fact that nearly everyone around us has a smartphone camera, along with a growing array of other devices that can capture images, video, and audio.

Emerging technology is both a boon and a challenge, but also a fact of life, and, like every once-new technology including matches, kitchen knives, automobiles, and, of course, cameras, there are appropriate and inappropriate uses. The key to any technology is to use it safely and responsibly. There are no guarantees that everyone will use their devices appropriately, but if history is a guide, we can assume that the vast majority of people will.

Most people in public will support privacy norms, and we all can do our part. It's important to be alert and aware, especially in highly sensitive situations. These risks are real and it's appropriate for the public and policymakers to look for ways to manage them. Still, it's also important to consider the benefits that we can gain from these new technologies that will continue to enhance our lives.

About ConnectSafely

ConnectSafely is a Silicon Valley, California-based nonprofit organization dedicated to educating users of connected technology about safety, privacy and security. We publish research-based safety tips, parents' guidebooks, advice, news and commentary on all aspects of tech use and policy.

Ray-Ban Stories At-a-Glance



- The product starts at \$299 (in the US) and is available at Ray-Ban and other retail stores and at ray-ban.com. Prescription lenses are available for an additional cost.
- Users can choose from a variety of frame styles and lenses, including clear and transition.
- There are microphones that allow users to talk on the phone (you must initiate or answer the call from your smartphone). An integrated touchpad allows users to adjust volume, pause, play, and more.
- Each of the frame's earpiece stems has a speaker and can be used to listen to stereo or monaural audio from smartphone apps via Bluetooth. In other words, you will be able to listen to music or sound from the glasses, without using headphones.
- Users can summon the Assistant by saying "Hey Facebook," or by tapping and holding on the side touchpad, followed by a command such as "take a photo."
- The Facebook View app is used to manage settings and data, and to edit and share images and videos.
- Data on the glasses are encrypted.
- Photos and videos are not uploaded to Facebook or any other app unless the user chooses to share the content.
- Users have the option to turn off Assistant, as well as adjust their data sharing preferences.
- The device has 4 GB of storage in the glasses for up to 30 full-length videos or over 500 photos.
- Fully charged glasses can run up to 6 hours assuming moderate usage. You
 can charge the glasses up to 3 times from its carrying case, if the case is fully
 charged.