

# An Empirical Study on Google Lens Technology

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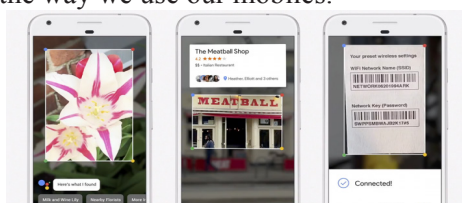
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## Introduction

The Google lens is good capture photos and its reality. The Google lens app and Google lens was designed at may 2017. Google company. The lens attached by the mobile camera. This advanced Augmented Reality tool can recognize and understand whatever you're looking at and offer any essential information you require. However, Google Lens already looks to be the first AR experience that would change our minds. Google Lens would be built into the Google Assistant AI, which can be used on the latest Android phones as well as iPhones. The idea is that you simply point your camera at your surroundings and the Lens can identify what you're looking at and use its smarts to work out what you need; be it real-time information or some other service. Here's what we know so far about Google Lens, and how it's set to change the way we use our mobiles.



**Fig 1: Google lens photos**

## Types of Google lens

Not only Google lens using mobile phones and cameras. It used many devices some device shown below

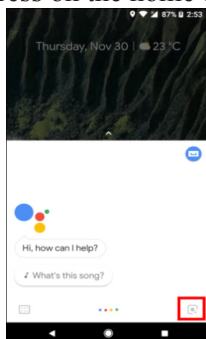
- Contact lens
- Google class lens
- Google office lens

## Architecture of Google lens:

Google lens is currently available for pixel, and the pixel xl, pixel 2xl.

### **Step 1. Looking out for a Google lens**

Google Assistant by squeezing your pixel2 and pixel, and the pixel xl, pixel 2x .you have first generation pixel phones, simply long press on the home button.

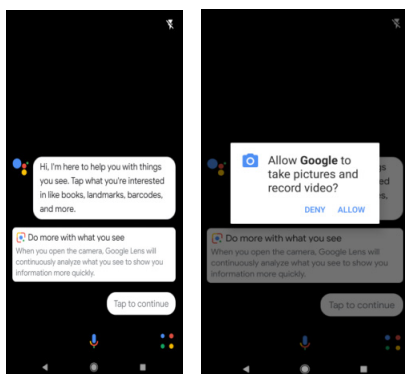


**Fig2: step1 open google lens**

Now we will see the Google lens icon for right corner

### **Step 2.allow to accessing a camera**

Tap on the Google lens icon for the first time, it will ask a small question, what the visual search can assistant can to?



**Fig3: google allow the photo**

Will you tap to continue below button. We tag after on the button, Google will ask for permission to allow the camera access. Tap on allow and are you set.

### **Step 3. Try out Google lens**

Now, we open a Google lens; we can tap anywhere in the viewfinder to know About the object in questions .will we take the photos and send to your friends to clear and high-quality pixel photos.

### **4. Impressive object recognition and real-time information**

Existing Augmented Reality apps can kind-of recognize some real-world objects when we point your phone's camera at them. This usually offers up simple information on a manufactured product, such as the online price and a basic description.

However, Google Lens goes a clear step behind this by recognizing a more greater range of objects, including also natural stuff. For instance, focus on flowers, long view and ask Google Lens what it is and we shall be told the species and given any information's to we require, pulled straight from the web. Handy if we have any allergies.

This feature will work for pretty much any object we can think of. For instance, we can point your smartphone camera at landmarks, zoo animals, birds and other interesting things immediately read up on whatever we are looking at. Been served up a random dish and want to know what you are about to eat? Fully Google Lens will be able to identify and told you what is on your plate.

Google Lens will also offer up reviews of any shops, restaurants and other services that you are aiming your camera. You will be able to see the star ratings and reviews right there on your phone screen.

### **5. Automatic assistance in Google Assistant**

As well as delivering vital info on your surroundings, Google Lens can also do smarter stuff. For instance, aim your phone's snapper at a sticker featuring a WiFi network ID and password and Lens will identify it such. We will then be offered the option of connecting to that network automatically. No fiddling around entering those details manually.

We can point your camera at a billboard for an upcoming concert as you're passing a theatre. Google Lens will figure this out and offer up a number of options. You can save the concert in your Google Calendar, hunt for tickets online, play music from the featured band via an online streaming service and so on.

### **6. Integration into Google Photos**

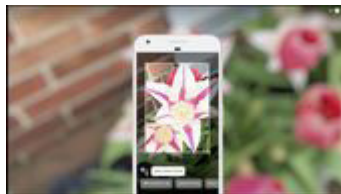
If you want to get information on photos you've already taken, good news. Google Lens will be fully integrated into the Photos app as well, to offer smart info on stuff already in your albums. This includes smart automation too, so, for instance, you can automatically dial a number on a slip of paper that you took a shot of.

Google has not announced a specific release date for Google Lens just yet, but you can expect it to arrive in a future update to the Google Assistant.

We first saw a preview of Google Lens during Goog i/o in May. Then, during a special event on Wednesday, Google took time to show off more of Google Lens. Here are some examples of what Lens can do:

- Identify the type of flower in a photo
- Provide details about a movie based on a poster
- Show reviews and ratings for a business based off the storefront.
- Scan a flyer or document and identify email address, phone numbers, etc.

In short: Lens will scan photos you've snapped or saved and provide additional information about what is in the photo.



Google Lens has a Share feature that outputs an image to any app, alongside any recognized text. Images taken with Lens appear in general Assistant history alongside the accompanying search result.

Lens in Assistant is set to roll-out in India, the UK, Australia, Canada, and Singapore on devices with English set as the default language. It's still early days for Lens, as it remains in a "Preview" state. And if you don't have a Pixel or Pixel 2, you're out of luck — Google hasn't said when Lens will come to other devices. Here's hoping that changes soon.

## **7. Google contact lens**

The lens consists of a wireless chip and a miniaturized glucose sensor. A tiny pinhole in the lens allows for tear fluid to seep into the sensor to measure blood sugar level. Both of the sensors are embedded between two soft layers of lens material. The electronics lie outside of both the pupil and the iris, so there is no damage to the eye. There is a wireless antenna inside of the contact that is thinner than a human's hair, which will act as a controller to communicate information to the wireless device. The controller will gather, read, and analyze data that will be sent to the external device via the antenna. Power will be drawn from the device which will communicate data via the wireless technology. Plans to add small LED lights that could warn the wearer by lighting up when the glucose levels have crossed above or below certain thresholds have been mentioned to be under consideration. The performance of the contact lenses in windy environments and teary eyes is unknown. The prototypes being tested can generate a reading once per second.



**Fig 4: Google contact lens**

## **Conclusion**

The Google lens using very easily and naturally tag photos for our smart phones and some other device. And share the photos to any smart phone applications to friends. Google contact lens also very useful because offast read and capture any photos visualize to any information to stored in Google contact lens.

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