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Hi professor，

My Project is about Google Street View and image recognition

Google Street View is a technology that provides [interactive panoramas](https://en.wikipedia.org/wiki/Interactive_panorama" \o "Interactive panorama)  from positions

along many streets in the world. It was launched in 2007 in several cities in the United States, and has been expanded to cities and rural areas worldwide.

The street view is often recorded by cameras mounted on a vehicle driven along public roads. In some special places the camera is hand-held, but is still subject to the same limitations

So what Google records is no different with what you could record with your own camera

while riding down the street in your car. It’s all public. The Car number plate and human face are also blurred. Google also removed all views of sensitive government and military facilities

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However , Is the outside surface of private residence public area？ Technically speaking, other people can still see my house while driving ，and his dashcam can record my house like Google .But I still think there is a little difference between private residence and public area. If there is a guy take a photo of concordia Hall building and I was just passing by, I wouldn't think it's a big problem. But if someone take a photo of my house and upload this photo on internet without asking me, it is a little uncomfortable. And individuals don't have the ability to build a complete and clear visual scene.

Now Google just post your house like other public area, if you present the application, then they will blur your home manually. However, if you use a random search engine , you can find a lot of lawsuits accusing Google of privacy invasion. Because before you send out your application, the photo of your house has been posted online for a while.

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So my change to Google Street View is blurring people's living house automatically by default , if there is need to cancel the blur, such as Housing transaction, then the owner can present the application.

Unlike blurring car number plate and faces, blurring private residence is more complicated, cause we need to know whether the building is private residence or not, so it needs an additional process of identification, which can be done by image recognition.

It is a sub-area of pattern recognition, which is one of the most popular field in computer science based on machine learning.  With a set of training data and instances that have been properly labeled by hand, the computer algorithms will extract all the elements from the picture and classify these elements into different categories . With a lot of examples, the machine will automatically discover the different regularities of different type of buildings.

Then the machine will identify correct pattern without manual intervention finally

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But my new change has some potential problems. In current version of Google street view, all photos are simply processed or just raw. My technology needs relatively complex analysis of photographs, so the technology build on the assumption that the governments will give Google more authorities to process data. And we know the non-open source software is in fact a black box, users only can see output, but cannot see what happened inside the black box. With the additional operation room, Google can use the data unethically and secretly. Like they did before.

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Despite the potential problems, I still think this change is valuable，even if it is just a change in special regional version instead of the official public version .Because In some countries and area, people there are more sensitive to privacy because of historical and cultural reasons.

This is the coverage of google street view in Germany, when it was launched, too many people required to blur their houses, then Google had to close that service. If Google really want to expand Google Street View worldwide, it is essential to respect different cultures' standard of sensitivity to privacy