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Digital society
Higher level and standard level
Paper 2 – source booklet

13 May 2024

Zone A morning | **Zone B** morning | **Zone C** morning

1 hour 15 minutes

Instructions to candidates

- Do not open this booklet until instructed to do so.
- This booklet contains the sources required for digital society higher level and standard level paper 2.

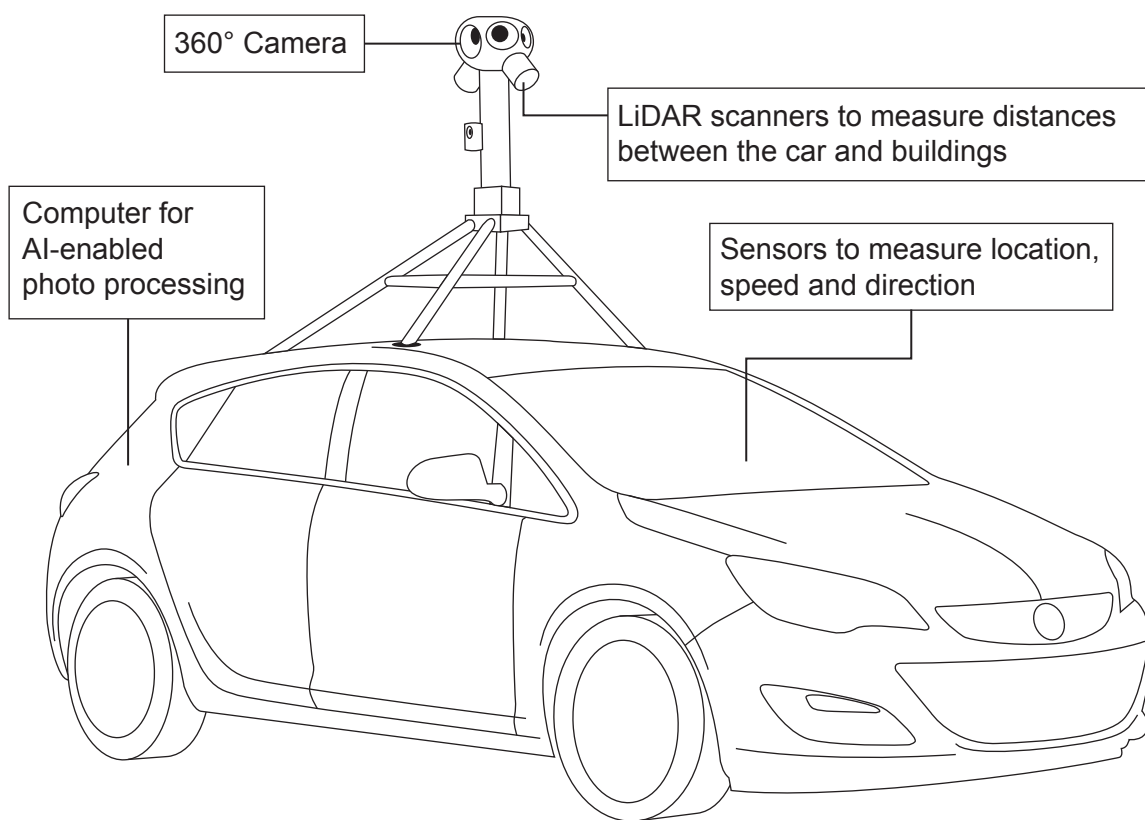
Source A The technology behind street view imagery (SVI)

Many online map applications offer street view imagery (SVI) that provides interactive panoramas from positions along many streets around the world. Most street view photography is done by car using specialized technology.

This technology includes:

- a **panoramic, 360-degree camera** that simultaneously collects images in multiple directions and stitches them together to form a single 360-degree image
- **remote sensing** to measure the distance between the car and buildings
- **sensors** on the car that measure location, speed and direction of travel, allowing images to be matched to a geographic location
- a **computer for AI-enabled photo** processing for automated face and license plate blurring.

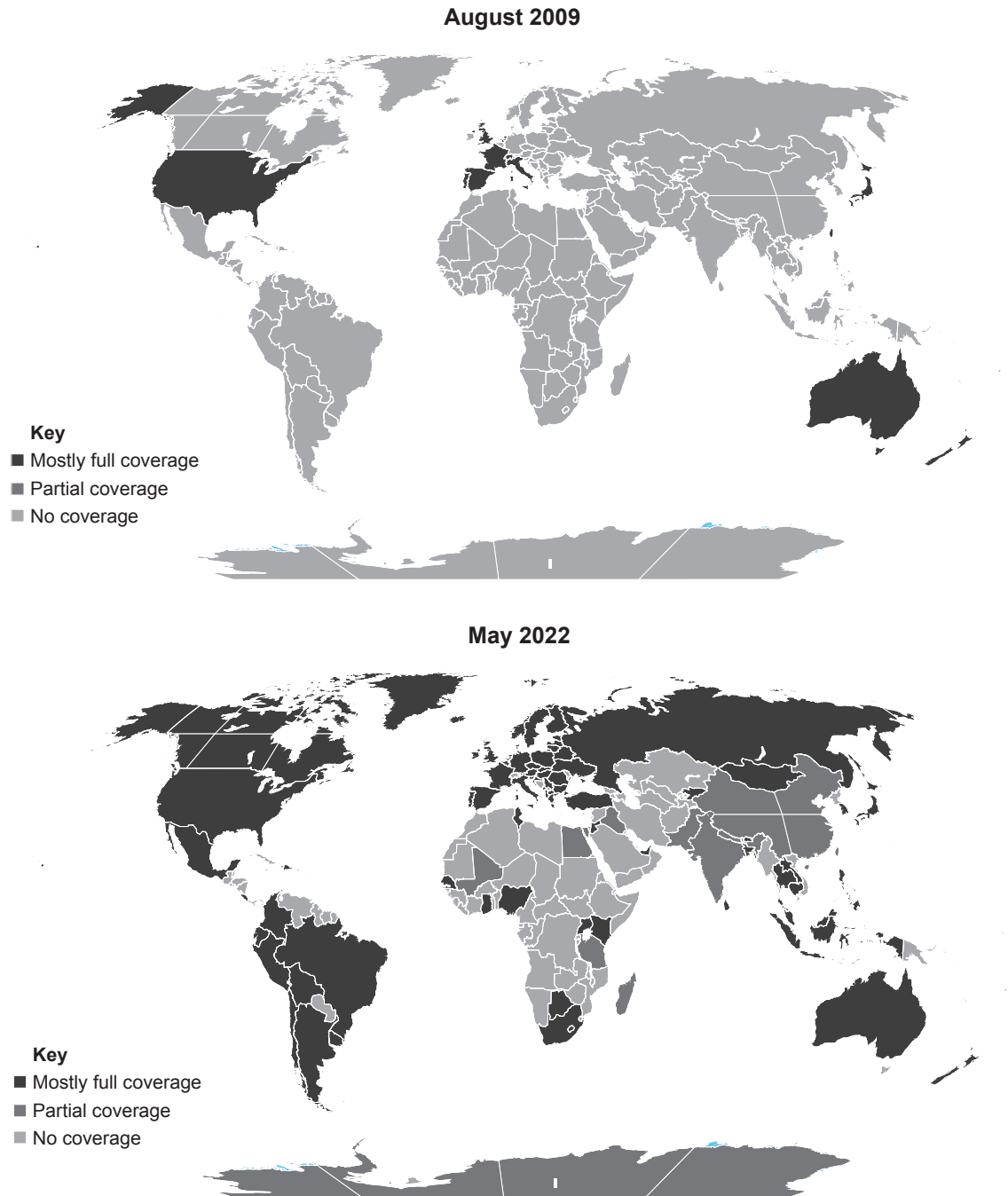
Figure 1: Specialized technology used for street view photography



Source B Google Street View coverage

Google Street View is one of the most comprehensive street view imagery (SVI) services in the world. It was launched in 2007 in several cities in the United States and has since expanded to include many countries worldwide. **Figure 2** shows the increase in Google Street View global coverage between 2009 and 2022.

Figure 2: Google Street View global coverage in 2009 and 2022



Source C Criminal located using a Street View image

With the help of an online mapping application, police tracked down a criminal who had been on the run for almost three years.

Police used street view imagery (SVI) technology after they were informed the woman was living and working in a restaurant in a city in Poland.

When police arrested the criminal, she asked how they found her. The police produced an image of her outside the restaurant in July 2023 (see **Figure 3**). Although the face of the woman was blurred out, the police were able to recognize her.

The image was timestamped, revealing the date it was taken.

Figure 3: Criminal located using a street view image



Source D Criminals target homes using street view imagery

Street view imagery (SVI) applications allow users to see houses, store fronts and points of interest from a driver’s point of view.

Criminals have used these images to find wealthy neighborhoods and homes that are easy to break into or to identify parked cars that might contain expensive possessions.

Some SVI applications allow owners to request that images of their homes be blurred (see **Figure 4**). They select the image and send a request via the website. However, this blurring can also attract the attention of criminals.

Figure 4: A blurred image



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References:

Figure 2 Eugen Simion 14. Google Street View timelapse additions.gif. https://commons.wikimedia.org/wiki/File:Google_Street_View_timelapse_additions.gif. Licensed under CC BY-SA 4.0 DEED <https://creativecommons.org/licenses/by-sa/4.0/deed.en>. Image adapted.