



You're Leaving Footprints

Review Questions

Answer Key

1. For each of the following activities, give an example of one way it might contribute to your information footprint.

- a. Sharing a photo on a social-media site.

Answers may refer to the direct contribution to the poster's information footprint (the image data being saved on the site, linked to the poster's profile), to its indirect contribution (via associated metadata like a geotag, semantic content – what's in the picture – inference processes, etc.), or to reposting by others.

- b. Watching a video online.

Answers should indicate understanding that records are kept of what users view online (for example, by the video-hosting site or by advertisers that track activity on that site). These records can further be used to gather information about a person's interests, etc.

- c. Using a fitness-activity meter/health tracker.

Answers may refer to obvious online interaction with the user's fitness data via a web interface or to the fact that companies often store users' data in the cloud.

- d. Buying something at a store.

Possible answers might refer to credit card companies, rewards programs, etc. that transmit purchase data online, store it in the cloud, and possibly share it with others; in-store surveillance videos transmitted or stored online; or location data recorded by the student's phone during the trip.

- e. Turning on the air conditioning.

Answers may refer to data about power usage (as recorded and transmitted by a smart meter, or any other records kept by the power company for billing purposes) or to more direct data collection via networked/smartphone-controlled climate systems.



2. How could someone figure out where you were from an online post, even if the post didn't mention your location? Give at least one example.

Possible answers might refer either to GPS/geotag metadata attached to the post by the site/service/app (based on location data from the device the user posted from), GPS/geotag metadata attached to a photo/video by the recording device, or an IP address attached to the post by the site/service/app.

3. If someone read a social-media post where you said, "On vacation in Mexico City!", what inferences could they draw based on that post? Could those inferences be harmful to you?

Possible answers might refer to inferences about the poster being away from home, and thus their home being vacant, and thus a good target for robbery, or they might refer to inferences about the poster's interests (travel, Mexico) and thus what they might want to do or buy in the future.

4. Describe one way an online-shopping website might be able to guess what ads to show you for the products you're most likely to buy, even if you've never used that website before.

- a. What type of data about you could they use?

Possible answers might include specific consumer data, such as purchase histories, or indirect indicators of likely preferences, such as age, location, or hobbies/interests.

- b. How might they get that data?

Answers might refer to data brokers/data aggregators or other companies selling information to the shopping website (or a company owning several websites that share information), and/or they might refer to where the data brokers or other companies get the information: purchase histories from other shopping websites, discount/rewards programs, etc.; characteristics and interests from information entered in online forms (e.g., to get an app), public profiles, or public records, or inferred from what types of websites/apps they use.

- c. What could that data tell them about what you might buy in the future?

Answers should reflect a basic understanding that marketing relies on logical inference, e.g., that people are likely to buy similar things to what they've bought (or browsed for) in the past, or that people are likely to buy the same things as people who have similar characteristics or interests.



5. Name two examples of privacy settings you can typically change on a social-media website or app. Which option would you choose for each, and why?

Answers might include who can see their profile or picture, the default audience for (various types of) posts or likes/reviews, whether posts are geotagged, requiring approval for others to tag them in posts or check them into locations, etc. Students may have a variety of privacy preferences, but answers should demonstrate an understanding that privacy settings affect what information can be seen by whom.

6. Besides changing your social-media privacy settings, give one example of something you could do to affect how many people – or how many computers – can see the data in your information footprint (i.e, to affect its impact).

Possible answers might refer to other means of communicating privacy preferences, such as opting out of information-sharing by service providers or discussing posting preferences with friends; to means of avoiding third-party sharing, such as not participating in a rewards program or not using particular services; or to means of preventing digital data from getting online in the first place, such as stripping EXIF data from photos.

Acceptable answers might also refer to privacy settings on non-social media sites/apps, such as shopping or gaming sites, or device settings, such as turning off Location Services for one's phone camera.

