

Shops could soon be targeting ads according to your feet

Level 3 • Advanced

1 Warmer

Make a list of all the places in your town or city where there are security cameras or other cameras that watch people.

Which of these cameras do you think are necessary and which are unnecessary?

2 Key words

Fill the gaps in the sentences using these key words from the text.

creepy
cookie

intrusive
footwear

shoplifting
threshold

retailer
hound

aisle
sensor

1. A _____ is a company that sells goods directly to the public for their own use.
2. _____ is the crime of stealing things from a shop.
3. Amongst other things, an _____ is the passage between the shelves of a supermarket or department store.
4. If you _____ someone, you follow them in a determined way in order to get something from them.
5. A _____ is a small file that a website sends to your computer when you connect to the website, containing information about your use of the internet.
6. _____ is a general word for things you wear on your feet, such as shoes, boots or sandals.
7. A _____ is a piece of equipment that reacts to physical changes such as the amount of heat or light that exists somewhere.
8. If something is described as _____, it is unpleasant in a way that makes you nervous or frightened.
9. If technology is described as _____, it becomes involved in your life in a way that is not welcome.
10. The _____ is the floor at the entrance to a room or building.

3 Find the information

Find the following information as quickly as possible.

1. What percentage of shops use facial recognition technology to track their customers?
2. What percentage of people aged 55 and over said they were uncomfortable with facial recognition technology being used in shops?
3. What degree of accuracy does footwear recognition technology have in identifying a person's gender?
4. What percentage of people aged 16-24 said they were uncomfortable with facial recognition technology being used in shops?
5. What, according to a company spokesman, is the aim of using RealSense technology in shops?
6. Which word comes up a lot during discussions about in-store tracking?

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Level 3 • Advanced

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As many as 30% of retailers are reportedly using facial recognition to track shoppers but some are exploring less invasive technology – including shoe profiling

Thomas McMullan

12 January, 2016

- 1 There are eyes on you, behind the bright lights and mirrored panels. Pick up a boot and a camera will make sure you don't slip it into your bag. Enter a department store and you will be watched. But new technology is leading retailers to grow a different set of eyes – less focused on shoplifting and more interested in your age, sex, size, head, shoulders, knees and toes.
 - 2 A few months ago, IT firm Computer Sciences Corporation (CSC) produced a report that claimed around 30% of retailers use facial recognition technology to track customers in-store. Facial recognition is a technology that can identify people by analysing and comparing facial features from a database, using devices such as Intel RealSense cameras, which are able to analyse everything from particular expressions to the clothing brands someone is wearing.
 - 3 Joe Jensen, of Intel's Retail Solutions Division, says that the aim of bringing RealSense technology into shops is not to create databases of specific people's lives but rather to build generalized models of people's lifestyles and shopping habits. "It's not so much that you need to know a particular customer. It's that you need to know that this shopper has these characteristics and, in the past, that when those characteristics are present, this is what a person tends to do."
 - 4 If you combine recognition technology with databases of previous customer patterns, you can start to predict a lot about what a person may or may not do in a shop. If, say, there's a size-10 woman wearing a gold necklace walking quickly towards the sock aisle, you can use that data to predict she wants to, well, buy socks. That could allow a retailer to automatically put targeted ads on screens aimed specifically at that person. If she looks like the type of person who wants to buy socks, they will show her adverts for socks.
 - 5 If it sounds familiar, it's because the online world has been using techniques like these for years.
- If you search for something on Amazon, you'll be hounded by targeted banners for similar products on other sites. Express a vague interest in canoeing and you'll get ads for canoes wherever you go. Yet bringing these systems into the physical world isn't a simple case of copy and paste. It turns out that people do not react to cameras in the same way as they do to browser cookies.
- 6 Hoxton Analytics, a London-based team of data scientists, has developed a technology that makes use of machine learning and artificial intelligence to categorize people based on the shoes they are wearing. By analysing the style and size of people's footwear as they walk past the sensor, the system can identify a customer's gender with between 75 and 80% accuracy.
 - 7 Owen McCormack, Hoxton Analytics CEO, says that the focus of the system came about in part as a reaction to facial recognition. "My idea was, why don't we simply consider the clothes someone's wearing to understand demographics?" he said. "If I just showed you a shot of someone's body you could probably tell me what gender they are. However, it turns out pointing a camera at someone's chest or hips feels just as creepy as facial recognition. The idea was – what about people's shoes?"
 - 8 The word "creepy" comes up a lot during discussions of in-store tracking. For retailers and data scientists, the aim is to find a way of obtaining information without coming across as intrusive.
 - 9 For Hoxton Analytics and the retailers using the technology, the answer is to look downwards. This tactic of avoiding the face and staring at shoes says a lot about how we, as physical beings, react to being watched. It suggests there are boundaries that do not exist on the internet. Set sights on our torsos and we feel invaded. But is making calculated judgments about a person based on their footwear actually any less invasive?
 - 10 For McCormack, the argument hinges on the fact that personally identifiable information isn't being collected. "Right now, shops are doing lots of incredibly invasive things but we just don't know about it. The angle Hoxton Analytics is taking on that whole thing is, well, if you know someone's a male or a female, then your advertising will be much more efficient. If you know that everyone

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Level 3 • Advanced

in your shop right now is a male, you'll be advertising PlayStations not hairdryers."

- 11 Keep it hidden and invisible monitoring lets shops optimize their output while keeping the customer unaware. Put adaptable monitors and targeted advertising into the mix, however, and it becomes harder to hide the fact that a machine is watching you. The argument from the retailers is that they do this to provide a personal shopping experience but it remains a grey area. It still feels creepy.
- 12 From the perspective of retailers, it's understandable that physical shops want some of the information online outlets collect. We allow this to happen online so why not offline? The thresholds of a shopping centre are different from those between websites and, when you can wander freely from one place to another without a pop-up asking you to accept cookies, the rules of consent change.
- 13 Then again, for a generation growing up with online first, physical shop second, the modes of online play may not be quite so invasive. In the CSC report, a survey indicated that while 72% of respondents aged 55 and over said they were very uncomfortable with these types of technologies being used in physical shops, only 51% of 16-24 year olds said the same.
- 14 Does this relative openness stem from a greater familiarity with digital technology or a blind belief in the goodwill of omnipresent organizations offering free services? Is the creepiness of a technology an unvarying, instinctive certainty or does it ebb and flow with degrees of social acceptance? Whatever the case, there are a growing number of eyes between the shelves and they care a lot about what you're wearing.

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4 Comprehension check

Choose the best answer according to the text.

1. What will stores typically do if a particular type of customer is tracked by facial recognition technology?
 - a. They will sell him or her a pair of socks.
 - b. They will show the person an advert for a product they are often interested in.
 - c. They will follow the customer in case he or she is shoplifting.
2. Why did Hoxton Analytics develop footwear recognition technology?
 - a. because stores need to know what kind of shoes people want to buy
 - b. because stores need to know exactly how many of their customers are female
 - c. because this is a less intrusive way of identifying whether customers are male or female
3. Why, according to Hoxton Analytics, is it important to know whether customers are male or female?
 - a. so advertising can be targeted more efficiently
 - b. so stores can plan their aisles more efficiently
 - c. so stores know how many PlayStations and hairdryers to buy
4. What, according to the article, is the main difference between online tracking and in-store tracking?
 - a. Online, you can agree to the use of cookies to track your behaviour but, in-store, you cannot do this.
 - b. Online tracking has been happening for many years but in-store tracking is very new.
 - c. In-store tracking is much more creepy and intrusive than online tracking.

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Level 3 • Advanced

5 Find the word

Find the following words and phrases in the text.

1. a noun meaning *the particular features of a population, for example people's age, sex or race* (para 7)
2. a noun meaning *the upper part of your body, not including your head or arms* (para 9)
3. an adjective meaning *annoying because of being too close or too involved in people's personal lives* (para 9)
4. a two-word phrasal verb meaning *depend on* (para 10)
5. a two-word noun phrase meaning *a situation in which the rules are not clear or in which you are not sure what is right or wrong* (para 11)
6. a noun meaning *someone who answers questions, particularly in a questionnaire or survey* (para 13)
7. a two-word phrasal verb meaning *be caused by something* (para 14)
8. a three-word verb phrase meaning *keep becoming smaller or weaker and then larger or stronger* (para 14)

6 Adjective + noun collocations

Match the adjectives in the left-hand column with the nouns in the right-hand column to make phrases from the text.

- | | |
|---------------|-----------------|
| 1. facial | a. interest |
| 2. physical | b. judgment |
| 3. artificial | c. world |
| 4. vague | d. advertising |
| 5. targeted | e. recognition |
| 6. calculated | f. intelligence |

7 Word-building

Complete the sentences using the correct form of the word in brackets at the end of each sentence.

1. Targeted advertisements are aimed _____ at particular people. [SPECIFIC]
2. A customer's gender can be identified with 75-80% _____. [ACCURATE]
3. Owen McCormack argues that personally _____ information isn't being collected. [IDENTIFY]
4. It's _____ that physical shops want some of the information online outlets collect. [UNDERSTAND]
5. Younger people have a greater _____ with digital technology. [FAMILIAR]
6. Social _____ of invasive technology varies. [ACCEPT]

8 Discussion

Discuss the statements.

- It is perfectly acceptable for stores to use cameras to collect data on their customers.
- There are too many cameras. People are watched in the street, at home and in shops.
- I welcome targeted advertising because I don't waste my time looking at adverts for things I don't use or need.

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Level 3 • Advanced

KEY

2 Key words

1. retailer
2. shoplifting
3. aisle
4. hound
5. cookie
6. footwear
7. sensor
8. creepy
9. intrusive
10. threshold

3 Find the information

1. about 30%
2. 72%
3. 75-80%
4. 51%
5. to build generalized models of people's lifestyles and shopping habits
6. creepy

4 Comprehension check

1. b
2. c
3. a
4. a

5 Find the word

1. demographics
2. torso
3. invasive
4. hinge on
5. grey area
6. respondent
7. stem from
8. ebb and flow

6 Adjective + noun collocations

1. e
2. c
3. f
4. a
5. d
6. b

7 Word-building

1. specifically
2. accuracy
3. identifiable
4. understandable
5. familiarity
6. acceptance