

Olympiáda v anglickom jazyku, 26. ročník, celoštátne kolo 2015/2016, kategória 2D
- riešenia a úlohy

LISTENING TAPESCRIPT
(Please read twice)

Lecturer: Hello class, so today we're going to be looking at facial recognition, and at the different sorts of technology that go into facial recognition. Now before we start, can any of you tell me where we can see facial recognition in action? Yes, you at the back?

Student: In the TV show Las Vegas?

Lecturer: Yes, well you're right. In this popular TV show, a security team pull images of individuals from their surveillance system and run the image through a database to identify each person. In this way, all the card counters and blacklisted gamblers can be escorted from the poker tables. It looks easy on TV, but in the real world, facial recognition is a tricky business. So let's start with the more traditional methods of facial recognition. Every face has peaks and valleys, and these can be translated into what is termed nodal points. Each face has about 80 of these, and they include the distance between the eyes, the length of the jaw, the width of the nose, things like that. These measurements can be used to create a numerical code, and this is called a faceprint. This system is good, because it can compare two-dimensional images, such as photographs. The problem is that the variables in the images have to be controlled. The person has to be staring straight at the camera, and there must be no variance in facial expression or lighting, because any variance in these parameters reduces the effectiveness of the system. So they had to come up with another way.

So the new way of recognising faces is by using a 3D model. It has better accuracy, allegedly. 3D imagery detects distinctive features in the face, such as the curves of the eyes, nose and chin – features which do not change over time. These are measured at the sub-millimetre level. Interestingly, a 3D image can be taken not only from a live scan but also from a 2D photograph. And another good thing about the 3D system is that it can recognise a person from a range of angles, the person doesn't have to be directly facing the camera, as in 2D technology. Once again, the system gives each individual a unique code – a set of numbers that represents the face. It's easy to match a 3D image to another 3D image, if you already have a 3D image in your database. It's less easy to match 3D images to 2D images. But what they can do is pull certain measurements from the 3D image, such as the size of the eye and so forth, and use this to convert the 3D image into a 2D image, and this image can be more easily compared to the 2D images in the database. But it's not just the measurements which can be used to recognise faces. There's also a new development called Skin Biometrics. This uses the uniqueness of skin texture to get its results. The process takes a picture of a patch of skin, and the system will then identify any pores, lines, moles, blemishes, and other features of skin texture. This method can be used to identify identical twins, something that cannot be done with the 3D technology. Its other advantages over 3D imagery are that it's insensitive to changes in expression, blinking, smiling and so forth, and can compensate for changes in facial features – such as the growth of a beard, or wearing glasses. It's not perfect, though, as it is sensitive to lighting conditions and poor camera resolution, and if there is glare from the sun.

So, now that we've covered the main types of facial recognition, we'll move on to its uses. Now, has anybody here...

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ROLEPLAY

Student

You and your friend want to participate in a video competition where you can win a large amount of money. You are supposed to record a video to be sent by spaceship on a trip to a faraway planet. In the video you should show a selection of items which might give another civilization an idea of what life on Earth is like. With your friend, discuss what you would include in the video and why (adrenalin sports, extravagant fashion, drinks, food, technology, natural catastrophes, etc.). You think that the items should be something original, even crazy, but your friend is more serious. You have to persuade him/her why these particular items are the best.

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ROLEPLAY

Teacher

You and your friend want to participate in a video competition where you can win a large amount of money. You are supposed to record a video to be sent by spaceship on a trip to a faraway planet. In the video you should show a selection of items which might give another civilization an idea of what life on Earth is like (everyday life, sports, music, national food and drinks, natural beauties, technology, etc.). With your friend, discuss what you would include in the video and why. Your friend has quite original and crazy ideas and disagrees with some of your suggestions. He/she thinks they are too ordinary.

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A N S W E R K E Y

GRAMMAR – 15points

1. goes 2. is growing 3 have been presumed 4. was imagined 5. were still reading
6. has been shattered 7. have reached 8. has been teaching

8pts

9. There is no problem as far as money is concerned.
10. The scheme has been successful to a certain extent.
11. Tom has been absent from college due to illness.
12. Not until the office phoned me did I find out about the meeting.
13. I'd prefer it if you sat at the front of the room.
14. Alice paid Peter back for being rude to her.
15. The box gave off a faint smell of fish.

7pts

VOCABULARY – 10points

- | | |
|---------------------------|----------------|
| 1. troublesome | 10. aggression |
| 2. withdraw | 11. rudeness |
| 3. circumstantial | 12. powerless |
| 4. spacious | 13. boredom |
| 5. forthcoming / upcoming | 14. reduction |
| 6. problematic | 15. respectful |
| 7. involvement | 16. pensioners |
| 8. bureaucratic | |
| 9. disenchanting | |

8pts (0.5pt each)

17. an early **bird** 18. a **bookworm** 19. a lone **wolf** 20. a busy **bee**

2pts (0.5pt each)

READING COMPREHENSION – 10points

- 1.d 2.c 3.d 4.b 5.b 6.b 7.b

7pts

8. a rare commodity
9. judicious trading
10. beggary
11. defaulters
12. speculators
13. merchants

3pts (0.5pt each)

LISTENING COMPREHENSION – 5points

- 1.F 2.F 3.T 4.F 5.T 6.T 7.F 8.T 9.F 10.F

5pts (0.5 pt each)

PICTURE STORY

Make up a story about the people in the picture.



Autori: Mgr. Viera Chovancová
Recenzent: PaedDr. Anna Brisudová
Korektor: Joshua M. Ruggiero
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