

Directions: In this section, you are going to read a passage with ten statements attached to it. Each statement contains information given in one of the paragraphs. Identify the paragraph from which the information is derived. You may choose a paragraph more than once. Each paragraph is marked with a letter. Answer the questions by marking the corresponding letter on *Answer Sheet 2*.

What Are the Ethics of CGI Actors—And Will They Replace Real Ones?

- A) Digital humans are coming to a screen near you. As computer-generated imagery (CGI) has become cheaper and more sophisticated, the film industry can now convincingly recreate people on screen—even actors who have been dead for decades. The technology's ability to effectively keep celebrities alive beyond the grave is raising questions about public legacies and image rights.
- B) Late in 2019, it was announced that US actor James Dean, who died in 1955, will star in a Vietnam War film scheduled for release later this year. In the film, which will be called *Finding Jack*, Dean will be recreated on screen with CGI based on old footage(影片镜头) and photographs, with another actor voicing him. The news was met with excitement by those keen to see Dean digitally brought back to life for only his fourth film, but it also drew sharp criticism. "This is puppeteering the dead for their fame alone," actress Zelda Williams wrote on Twitter. "It sets such an awful precedent for the future of performance." Her father, Robin Williams, who died in 2014, was keen to avoid the same fate. Before his death, he filed a deed protecting the use of his image until 2039, preventing others from recreating him using CGI to appear in a film, TV show or as a hologram(全息影像).
- C) The James Dean film is a way to keep the actor's image relevant for younger generations, says Mark Roesler of CMG Worldwide, the firm that represents Dean's estate. "I think this is the beginning of an entire wave," says Travis Cloyd, CEO of Worldwide XR, one of the companies behind the digital recreation of Dean. "Moving into the future, we want James Dean to be brought into different gaming environments, or different virtual reality environments, or augmented reality environments," he says.
- D) Other actors have been revived, with the permission of their estates, for advertising purposes: for example, a 2011 advertisement for Dior featured contemporary actress Charlize Theron alongside iconic 20th-century stars Marilyn Monroe, Grace Kelly and Marlene Dietrich. Later, Audrey Hepburn was digitally recreated for a chocolate commercial in 2013. In the same year, a CGI Bruce Lee appeared in a Chinese-language ad for a whisky brand, which offended many fans because Lee was widely known not to drink alcohol at all. "In the last five years, it's become more affordable and more achievable in a whole movie," says Tim Webber at UK visual effects firm Framestore, the company behind the Hepburn chocolate ad. Framestore used body doubles with resemblance to Hepburn's facial structure and body shape as a framework for manual animation. The process was extremely difficult and expensive, says Webber, but the technology has moved on.
- E) Now, a person can be animated from scratch. "If they're alive today, you can put them in scanning rigs, you can get every detail of their body analysed very carefully and that makes it much easier, whereas working from available photographs is tricky," says Webber, who won an Academy Award for his visual effects work on the 2013 film *Gravity*. "I also see a lot of actors today who will have the desire to take advantage of this technology: to have their likeness captured and stored for future content," says Cloyd. "They foresee this being something that could give their estates and give their families the ability to make money from their likeness when they're gone."

- F) A hidden hazard of digitally recreating a deceased(已故的) celebrity is the risk of damaging their legacy. "We have to respect the security and the integrity of rights holders," says John Canning at Digital Domain, a US firm that created a hologram rapper(说唱艺人) Tupac Shakur, which appeared at the Coachella music festival in 2012, 15 years after his death.
- G) Legally, a person's rights to control the commercial use of their name and image beyond their death differ between and even within countries. In certain US states, for example, these rights are treated similarly to property rights, and are transferable to a person's heirs. In California, under the Celebrities Rights Act, the personality rights for a celebrity last for 70 years after their death. "We've got a societal debate going on about access to our public commons, as it were, about famous faces," says Lilian Edwards at Newcastle University, UK. Should the public be allowed to use or reproduce images of famous people, given how iconic they are? And what is in the best interest of a deceased person's legacy may conflict with the desires of their family or the public, says Edwards.
- H) A recreation, however lifelike, will never be indistinguishable from a real actor, says Webber. "When we are bringing someone back, representing someone who is no longer alive on the screen, what we are doing is extremely sophisticated digital make-up," he says: "A performance is a lot more than a physical resemblance."
- I) As it becomes easier to digitally recreate celebrities and to entirely manufacture on-screen identities, could this kind of technology put actors out of jobs? "I think actors are worried about this," says Edwards. "But I think it will take a very long time." This is partly because of the risk that viewers find virtual humans scary. Edwards cites widespread backlash to the digital recreation of Carrie Fisher as a young Princess Leia in *Rogue One*, a trick later repeated in the recent *Star Wars: The Rise of Skywalker*, which was filmed after Fisher's death in 2016. "People didn't like it," she says. "They discovered the uncanny valley(诡异谷)."
- J) This refers to the idea that when objects trying to resemble humans aren't quite perfect, they can make viewers feel uneasy because they fall somewhere between obviously non-human and fully human. "That's always a danger when you're doing anything human or human-like," says Webber. "There're a thousand things that could go wrong with a computer-generated facial performance, and any one of those could make it fall into the uncanny valley," he says: "Your brain just knows there's something wrong." The problem often arises around the eyes or mouth, says Webber. "They're the areas that you look at when you're talking to someone."
- K) An unfamiliar digital human that has been created through CGI will also face the same challenge as an unknown actor: they don't have the appeal of an established name. "You have to spend substantial capital in creating awareness around their likeness and making sure people are familiar with who they are," says Cloyd. This is now starting to happen. "The way you pre-sell a movie in a foreign market is based on relevant talent," he says. "I think we're a long way away from having virtual beings that have the ability to pre-sell content."
- L) Webber expects that we will see more digital humans on screen. "It's happening because it can happen," he says. Referring to a line from *Jurassic Park*(侏罗纪公园), he adds: "People are too busy thinking about what they can do to think about whether they should do it."
36. There is an ongoing debate among the public as to whether the images of deceased celebrities should be recreated.
37. The CGI technology allows the image of the deceased James Dean to be presented to young people in new settings.

38. It is very likely that the CGI-recreated image of a deceased celebrity will fail to match the real actor
39. The use of digital technology can bring images of deceased celebrities back to the screen.
40. Recreating a deceased famous actor or actress may violate their legitimate rights.
41. More CGI-recreated images of deceased celebrities are expected to appear on screen.
42. The image of James Dean will be recreated on screen with his voice dubbed by someone else.
43. However advanced the CGI technology is, the recreated image will differ in a way from the real actor.
44. A lot of actors today are likely to make use of the CGI technology to have their images stored for the benefit of their families.
45. Some actors are concerned that they may lose jobs because of the CGI technology.