

Slide 1(role)

Advertising is a part of our daily lives, whether we are out and about running errands or sitting in the comfort of our own home, we are bound to see an enormous amount of advertisements every single day. Though it is deemed to help ease our daily lives and give good recommendations to the user, many consider such a thing controversial and intrusive, even forcing companies to abide by laws made specifically for such a thing in order to not infringe on basic human rights.

Slide 2 (significance)

Before Steven Spielberg made this film come to fruition, he gathered a group of scientists and researchers to conduct a 'think tank'. For three days they gathered round at a hotel and speculated what our world may look like in the year 2054 in order to create a believable world, which made the film known later on as being quite reflective on the technologies we have today. In the movie, personalised advertising is used to showcase the iris scanner that is important in the film. We see how John's eyes get scanned and suddenly the adverts spring to life calling out his name. Furthermore, we do see the same after he gets his illegal eye surgery; this time the adverts call him by a completely random name. The film tries to give us this looming idea that this perfect world they live in has intruded on every aspect of one's life, even having their sense of self tied to their eyeballs. This idea of a dystopia reflects on our real world and makes us think, is this where we are going?

Slide 3 (equivalent)

Thus far, we do have technologies that directly remind us of this movie, mainly in predictive algorithms used for advertising. Everyday, we provide data to large companies in order to help them make a more personalised experience for us. Things such as browsing history, geography, age, gender, as well as trending topics are used in order to give the user a more personal experience, and on the other hand to gain the advertising company new and prospective clients. AI is used here to be able to predict patterns and trends within users, optimising the best products to display to each user and predict what they may like to see next.

The movie also pairs this with biometrics, of course represented by the iris scanner. Biometrics is something that us humans have used for many many years, used for identification by means of fingerprints, handprints, and footprints. Nowadays, there is a different meaning to biometrics; mainly used for security reasons and keeping our precious cellphones locked up from prying

eyes. AI is used in biometrics to quickly identify key factors that differentiates someone's pattern from the next.

Synthetic voice generation is another key factor that scientists are now trying to perfect. This is when AI is used to recognize key vocal patterns and understand natural human speech.

Through this, the AI is able to output audio that closely resembles human speech. Neural networks are used to capture small details in human speech and mimic this accurately, taking a generated voice from sounding like a monotone robot to someone that's actually living; we have seen this taking effect already with many generator websites being able to mimic celebrity voices and having them say anything you want. This is useful in a case of advertising, much like the movie, because every time someone passes by the advertisement, a voice will have to be generated that is able to pronounce the user's name and think of a slogan/motto that will fit the user's need.

Slide 4 (emerging)

In an airport in Detroit, there is already a real life example of parallel reality. This technology is still fairly new and is being actively researched, developed, and tested. These displays use special pixels that are able to direct light rays in specific directions. This means that depending on where you are standing in the room, each person will see a different image on the display due to the pixels emitting rays to each viewer. This uses non-biometric object detection and is merely guiding the corresponding light to the viewer using a sensor to detect coordinates.

Augmented reality aims to implement digital interfaces within the user's digital world in real time. Special markers are used to indicate when and where the AR should occur, marking the position of the device in order to correctly display and layer the images for the experience to take place. This is limited mainly to our mobile phones, but there have been many attempts to implement this into glasses for a truly immersive experience. Of course, to reach the complexity we see in the movie, we will need digital eyeballs to have a HUD displayed over everything in real time. AR is in its early stages as we are still developing the technology to make this a truly worthwhile experience.

In the last 2-3 years, AI generated art is becoming a big topic, especially amongst artists and if the use of AI truly constitutes as art. As this technology becomes more mainstream, the applications for it truly have become wider; even in recent months large fashion designers have used it in their advertising campaigns. This trend of generated art is moving itself into videography. While these types of images have very quickly reached a point where it is difficult

to tell what is AI and what isn't (even every image in this presentation was made by AI last night), the video aspect is still in its infancy but is slowly seeing a rapid exponential rise in popularity and development. The main problem is achieving cohesive results between frames which makes it still so primitive. Many videos on youtube already display the results of such technology, even some content on there being fuelled by AI; meaning with some more time we could be seeing adverts completely generated by AI.

Slide 5 (ethics)

The largest issue with the majority of these technologies is that there are worries of privacy. Companies nowadays have to comply with the General Data Protection Regulation policy, or GDPR for short. This is a dictation on basic human rights and how corporations can and should ethically collect our data, which in this case is for the use of targeted ads. Companies should be transparent and provide their users with written word on how and why their data is collected, and give consent whether they agree on such terms. Organisations should take care with keeping such data confidential and storing it for only as long as it is needed.

On the other hand, while companies are encouraged to know as little as possible about a user based on their data, they are also required to have the most up to date and accurate information possible regarding users.

Within the near future, I do hope that there are more rules and regulations placed onto such laws as there have been steps in the right direction, but the transparency of data usage still remains quite questionable by many large corporations. In my opinion, I do wish that advertising will have restrictions put in place regarding the intrusiveness and density of them in our daily lives. The future is uncertain and it is up to us to steer things in the right direction.