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Summary:

Augmented reality, a technology which overlays virtual objects on top of the real world continuously grows but raises a host of new privacy and security threats. An advisory group for mergers and acquisitions, Digi-Capital predicts that the market for augmented hardware and software will exceed $80 billion by 2021. That data alone can reveal a lot about your habits AR devices could end up collecting biometric and personal health data too. In fact, using your location, activity, and state of mind, companies can infer a wide range of things about you and use that data to predict what you might want to do next (Tynan, 2017) and the company that collects this data can use it for any purpose, limited only by the terms of its privacy policy. Even if you never use an AR device, your privacy could be compromised. Someone wearing a device like Google Glass or Snap Spectacles could capture video of you in a public space and post it to Facebook, where facial-recognition software could identify you by name.

An AR-enabled device could be used to passively authenticate your identity using a retinal scan or some other biometric. It could even use your behavior to identify you. Conversely, if a user's head is cocked in an unusual direction, or he's holding the device in his right hand instead of his left, that could indicate that the user isn't actually you, these and other many AR features might one day keep fraudsters from draining your bank account (Tynan, 2017).

As augmented wearables become more widespread, they could attract the attention of attackers who can manipulate the images in a person's field of view, substituting fake virtual objects in place of real virtual objects (Tynan, 2017).

AR hacks could also create a new breed of ransomware. A surgeon who relies on a device like Microsoft HoloLens to guide her procedures could be forced to pay a bitcoin ransom or lose control of the device.These exploits could be used to foster cyberterrorism and other mayhem because they're relatively new and highly complex, AR devices and apps will be more vulnerable and thus more attractive to attackers (Tynan, 2017). Hackers always go after the weakest link, they used to attack at the network level. After people began using firewalls, they moved on to Web apps and browsers, and then to mobile and connected devices (Tynan, 2017).

The ideas that stood out while reading the article was the its potential to improve lives. I remember reading about the MagicBook back when AR was first starting to gain momentum. It was developed for neuroanatomy by using mobile augmented reality (mAR) technology. The technology integrates virtual learning objects into the real world and allow users to interact with the environment using mobile devices (Kucuk, Kapakin, & Goktas, 2016).According to their research, the mobile learning approach helped students learn better by exerting less cognitive effort. Moreover, the sensory experience and real time interaction with environment may provide learning satisfaction and enable students to structure their knowledge to complete the learning tasks.

I believe that this will lead to have more and better trained neurosurgeons in the future. Augmented reality can also help with loneliness, since loneliness levels are on the rise (Entis,

2016) and sometimes lead to loss of life. As portrayed in the sequel to one of my favorite adaptations (Blade Runner, 1982), Blade Runner 2049 features purchasable holographic companions, Joi. There is also these glasses worn on The Kingsman movies that makes wearers see projections of a whole person like talking to them live. Digital companions can help with the loneliness problem while the glasses can greatly improve long distance communication. Although terrifying, we cannot deny that it is also an achievement in field of human-computer interaction. But as to benefits, there are also drawbacks. I think we should focus on it's benefits but be very careful with our own privacy and safety. We also need stricter policies and better spread of information focusing on privacy.

References

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