

**S:** Technology has become part of the day to day life for most of the people, the aim of this technology is to make life as comfortable as possible and that's why people always have it on them like, for example, smartphones, smartwatches, etc.

- US adults usage of smartphones in 2011 is 35% and in 2015 its 68%.  
This shows a rapid rise in smartphone usage in the US.  
<http://www.pewinternet.org/2015/10/29/technology-device-ownership-2015/>
- If we then take a look at the amount of mobile phones (90% of american adults in 2014, and 92% in 2015) we can see that these in general have reached a level of saturation. Combining these thoughts show us that more and more people are giving up normal mobile phones for smartphones.  
<https://www.reportlinker.com/insight/give-kid-tablet-ask-time.html>

**C:** The way we use technology right now is limiting our progress.

If we look back at a period starting from 40 years ago to 20 years ago, people solely meant a Television when they talked about screens in their home. But in 20 years time this has been changed completely. A study from 2017 among US citizens show that the average household has 7 screens and that 90% of the daily media intake is done through screens. Most people are not limited to using a single screen at a time (For example, watching television but also doing some stuff on your phone).

### **What does all of this mean?**

Simply put, the general public's dependence on screens to garner information is growing very fast, but that isn't necessarily a bad thing. The internet and more generally technology, has made it easier, in a lot of ways, to exist. While some may bemoan the way the internet has changed communication and entertainment, there are many positives to those changes that must be explored.

**S2:** Companies are making more personalized advertisement for their audience, like for example, after we search for something in the internet we'll be presented with ads about those topics.

Targeted Advertising (types, process, effectiveness, benefits and disadvantages):

- [https://en.wikipedia.org/wiki/Targeted\\_advertising](https://en.wikipedia.org/wiki/Targeted_advertising)

Social Media Advertising Stats:

- <https://blog.hootsuite.com/social-media-advertising-stats/> (2017 & 2018)
- <https://www.wordstream.com/blog/ws/2018/07/19/advertising-statistics> (2018)

How Augmented Reality Makes Advertising Interactive:

- <https://rubygarage.org/blog/augmented-reality-in-advertising>

**C2:** People are not engaged with the ads so they don't want to waste time on them therefore they don't like them and won't remember them.

**S3:** People seek new ways of interacting with technology, but are resisting big changes (Mobile phone use, computer use, smartphones, telephone, walkman)

- **'Home' Computers (Around 1970)**

Computers also have an interesting history of adoption. From the first moment they became available as a private device, most people had little interest in them. They were seen as devices which helped people make spreadsheets and as an expensive typewriter.

It also carried a stigma with it, if you owned one at home you were probably a Computer Geek. Because technology moved slower at the time, people didn't really oppose it because they wouldn't be in contact with them involuntarily. Over a period of several years computers grew in their functions (And the internet) and people slowly changed their mind towards it.

Nowadays computers are so deeply integrated in our lives that removing them would cripple our society.

- **Mobile Phones: (Starting from 1983)**

So mobile phones did not face a hard opposition against them, however a lot of people saw it as an unnecessary device. It was useful for business but people didn't see being connected all the time as an important feature. Combined with the price it had at first, it truly was a device for either businessmen or the wealthy elite.

- **Smartphones: (2007)**

Smartphones did not face a true opposition either, but they did once more create a situation in which people simply could not understand why your calling/texting device would need all these different functions, communication was seen as the only goal of a phone.

However, if we look at smartphones now, we can all agree that they are a multi-purpose tool with a lot of functions and possibilities, yet people are also making arguments that it changed society in a way that was unnecessary.

**C3:** Screens are limiting this immersion

**S4:** People want technical products to feel more human, by mimicking natural behavior into technological behavior.

**C4:** The way people receive information at the moment is limited emotion wise and the way it communicates.

- uncanny valley facts.

**S5:** Technology is becoming a more important part in life, and people start using technology at younger ages.

- <https://www.erikson.edu/wp-content/uploads/2018/07/Erikson-Institute-Technology-and-Young-Children-Survey.pdf>

**C5:** People are taught to use technology in a certain way (touchscreens, keyboard, mouse) and as a result do not realize that there are more meaningful ways of interacting.

**S6:** Technology allows us to access things that are not necessarily ours or allows us to have virtual ownership. (Spotify, Netflix, Steam)

**C6:** People lose their sense of (physical) ownership, something that is important for most people.

Technology has become part of day-to-day life, as seen in the ownership of smartphones, and the way young people interact with it.

<https://www.reportlinker.com/insight/give-kid-tablet-ask-time.html>

AR is an upcoming technology, as seen in advertising, it has the wow-factor.

**How is AR used at the moment, what are the advantages and disadvantages.**

The AR uses:

<https://www.lifewire.com/applications-of-augmented-reality-2495561>

Military, Medical, Navigation, Sightseeing, Repairing, Advertising.

**AR wearables are getting better.**

**Early adopters of technology, but general public is resistant.->history facts find a way to counter that**

What are the biggest advantages and disadvantages of AR wearables?

- Privacy concerns
- no shareable reality (how much do people share)
  - <https://www.statista.com/statistics/282061/millennials-social-media-usage-drivers/>
  - <https://precisionbrandsny.com/blog/why-do-people-share-things-online/>
- hands free?
  - DHL -> <https://www.youtube.com/watch?v=CMwgXcPVAR8>
- What could it replace and enhance?
- More natural behaviour?
- What is the user seeing what other people around are not?

Past, Present, Future of AR:

<https://www.interaction-design.org/literature/article/augmented-reality-the-past-the-present-and-the-future>

AR/VR Survey:

<https://www.perkinscoie.com/images/content/1/8/v2/187785/2018-VR-AR-Survey-Digital.pdf>

AR 2.0:

<https://www.digi-capital.com/news/2019/01/for-ar-vr-2-0-to-live-ar-vr-1-0-must-die/>