Envisioning Technology

Interests

One of my favorite hobbies is playing video games. The term video games encompasses quite a lot, but I would describe a video game at its core as electronic, visual, and interactive. Since I was a child, I enjoyed nearly any video game I could get my hands on, which shifted more recently toward an interest for computers and computer games. Fortunately, the internet allows us to connect with other people wirelessly while simultaneously playing games. The idea of passing time with my friends from school in multiplayer games always sounds entertaining. Connecting to the internet has traditionally been done through electronic connection, but in the last few years we have begun looking into a new method for transferring data over long distances: fiber optic cables.

As opposed to the typical electronic connection, fiber optic cables utilize light to send information. The problem this poses is that after enough distance, distortion starts to occur within the data that was sent. UC San Diego describes in an article how they invented a comb that can predict this distortion and reverse it at the destination, effectively nullifying it. In tests reported within the article, the researchers “successfully deciphered information after it travelled a record-breaking 12,000 kilometers through fiber optic cables with standard amplifiers and no repeaters, which are electronic regenerators.”
In addition to long distances, fiber optic cables are also able to transfer information at extremely high speeds. John Markoff from the New York Times writes about how fiber optic cables will be the foundation of a west coast network called the Pacific Research Platform, and how fiber optic cables will allow data to move “at speeds of 10 gigabits to 100 gigabits per second among 10 University of California campuses and 10 other universities and research institutions in several states, tens or hundreds of times faster than is typical now.” This has great implications for the field of science where they need large masses of information transferred quickly.

These benefits of fiber optic cables also translate to household internet use and video games where a good internet connection is desired, such as fast-paced multiplayer games. Unfortunately, fiber optics are still in a state where they are not available everywhere, giving some users an advantage by having a faster/more stable connection. In many multiplayer games, you are matched with players in your given region, such as east coast U.S. or west coast U.S., to avoid incredibly high delay (often called latency or ping, the time it takes for the server to respond to your computer). This is also the reason most competitive tournaments are held on a Local Area Network, where all of the computers are connected to the same IP. With the ability to now move data over extreme distances at monumental speeds, this could allow for multiplayer games to easier maintain an audience by having fewer regions, in addition to the convenience of running gaming tournaments over long distances.

I think the utilization of light for data transfer is brilliant, seeing as light is often our comparison for the upper limit of speed. If we can eventually replace electric cables in households for personal use, this will allow for much more convenient mass connection over long distances. Fiber optics set a great foundation in both household and work use, and has the potential to change the way we look at data transfer moving forward.
In the Media

Since the invention of the cell phone, we have been gifted with a means of instant communication no matter our location. This was a revolutionary invention that clearly shaped our current technological interests now, with our focus on smartphones in the past decade. Although cell phones have evolved into this all-in-one tool, the original purpose was simply to provide one-to-one voice communication, which I will be focusing on as I analyze the use of cell phones in ‘Castle Rock’, Season 1, Episode 1, “Severance”.

Castle Rock is a psychological thriller that takes place in the fictional town of Castle Rock, Maine. It is set in the Stephen King universe, and based around characters and settings from King’s stories. In the pilot, two characters are followed in particular. The first is a lawyer named Henry Deaver, who was found out in the forest when he was eleven, remembering nothing prior to the rescue. The other is an unnamed man referred to as “The Kid” who is found inside a holding cage at the bottom of an oil tank inside an abandoned jail block. It is revealed in this episode that “The Kid” had prior contact with the man who rescued Henry Deaver, who told “The Kid” to ask for Henry when he was questioned. Deaver receives a phone call from a cell officer, informing Deaver that his name was mentioned.

The show is set in the year 2018, thus, obtaining a cell phone for the sole purpose of voice communication is both easy and cheap. One can obtain a basic cell phone for as low as $20 as of September 9, 2018 (Amazon.com). It is reasonable to say that cell phones manufactured before the smartphone era will stay cheap, due to their limited functionality. According to Pew Research Center, as of 2018, 95% of Americans now own a cell phone, and 77% own a smartphone. It is likely that eventually flip-phones and phones of the like that predate the smartphone era will eventually die out or no longer be manufactured and become bought out, and the early generation smartphones/iPod Touch will move
in to take their place. There should always be a cheap means to voice communication, provided you
don’t mind the limited relative functionality.

At the root, voice communication does not perform anything that written messages do not. They are both simply means of transporting information; however, talking to someone on the phone serves as a much more intimate experience than writing a message. This is likely the reason for large political figures talking to one another on the phone; to try to develop a connection that written messages back and forth would not accomplish. The cell phone call that Deaver received to inform him of his “client” could have been substituted for a text message, email, letter, etc. It is likely they simply opted for the phone call for the sole purpose of conveying emotion, a key factor in character development. Cell phones as a whole are arguably moving in a dangerous, expensive direction. With the recent iPhone X being unveiled at a whopping $1000, the price of smart phones only seems to be going up as more and more features are incorporated into them.

There is not excessive cell phone use in this episode of Castle Rock, but it does provide the most key plot point in the episode. Without voice communication, they would have still had several fairly convenient means of contacting Deaver, but the phone call serves as a crucial moment in the episode. This affects Deaver by sending him down the path of trying to figure out why “The Kid” asks for him by name. In real life, it is extremely difficult to say how voice communication technology affects our lives because we live completely intertwined with it, with no recent frame of reference for life without it. It is used every day from the fast food drive through, to the supermarket, to the workplace. One could argue that things would be more difficult and/or less efficient, but that seems to be understood due to the mass widespread use of voice communication.
Voice communication is in essence entirely ethical, as it is just a reflection of normal human speech. With the extreme functionality we are now presented with through contacts and caller IDs, if you are presented with a caller you don’t know, you can simply choose to not answer the phone. Before caller IDs, it was much easier to use it maliciously; however, it is still unfortunately used in some unethical ways today. I have been called on my phone more than once with inquiries about my car insurance, to which I don’t even own a car. Fortunately, through this repeated use we have become more aware of these unethical practices and have become better at avoiding them.

I don’t see voice communication ever diminishing; we are much too interwoven with the technology. This technology is also not extremely new, so I don’t see this technology in itself evolving anymore, but maybe being applied to more situations. Perhaps a headset where you connect with your professor and can listen to a lecture from the leisure of your room, a voice activated car, or a security system. Voice technology is easily one of the most personal technological fields if we look at inventions like Amazon Alexa, which respond to your voice. There is a lot of potential personalization in the future for voice technology, it’s just up to what we choose to invent next.
Works Cited


