

2a. The innovation that my computational artifact illustrates is Peer to Peer Computing. The intended purpose of this is to connect and collaborate with fellow computer users. It has 3 distinct models of function: Multiple Peer Relationship, Distributed Peer Relationship, and Collaborative Peer Relationship. [1] Multiple Peer Relationship is when computers from the same network send data to the same server so that files can be shared and collected. [1] Distributed Peer Relationship is when computers combine their processing power to solve problems. [1] Collaborative Peer Relationship is when a small group of people who agree to help one another through a common interface. [1] My computational artifact describes my innovation because it states the functions, purpose, and effects through an infographic.

2b. I created an infographic through the website Piktochart. I used 2 blocks of information for my computational artifact. One block being being the Title of my computational innovation and the other the 3 models of P2P. I used the line function in Piktochart to represent the connections between computer users in the same network. The pictures of the computers are stock photos already uploaded in the Piktochart database.

2c. A negative effect that P2P contributed to is the decline in profits for the music industry. [3] The U.S. music industry in the 1990s experienced a healthy growth. The shipments of music tracks increased from 7.5 billion to 14.6 billion dollars from 1990 to 1999. [3] However, the shipments dropped to 8.5 billion in 2008. The reason for the drop in profits is due to the correlation between the large increase in file sharing over the internet and the decline of music sales. [3] Most of these exchanges were performed on P2P networks like Napster in 1999. The beneficial effect of Peer to Peer Computing is that it facilitates the collaboration of a group of people. One peer isn't able to bring down the whole network. The relative ease of access for most people makes P2P user friendly towards everyone.

2d. The types of data that P2P generally deals with are media files like movies, music, games, and books, but it can also deal with documents or images. The data that P2P is inputted and outputted with depends on the users on the network. If there are users that have a mp4 file that another user needs, all he has to do is connect to the P2P network and download chunks of the mp4 files from the multiple users who have it. When using P2P applications, it's almost impossible to verify the integrity of the files you are downloading, so what seems to be a harmless image may be a malicious files. [2]

2e.

1. Mindi McDowell, Brent Wrisley, and Will Dormann . Security Tip (ST05-007). Retrieved January 26, 2017 from <https://www.us-cert.gov/ncas/tips/ST05-007>

2. Susan Farago-Walker . Peer-to-Peer Computing Overview, Significance and Impact, E-learning, and Future Trends.

3. Sanjay Goel, Uday Chandra, and Paul Miesing. 2010. CALIFORNIA MANAGEMENT REVIEW VOL. 52, NO. 3 SPRING 2010 CMR.BERKELEY.EDU 6 The Impact of Illegal Peer-to-Peer File Sharing on the Media Industry. (2010).