Tenzin Rigden

Comps Proposal. Data Storage Methods: Past, Present, Future.

I would like to do my comps on the physics of data storage. Computers are something that I use every day and data storage is an important, and I think interesting, part of it. In addition, I think it’s interesting because of the various technologies used to implement it. I also think it’s interesting because of the new advancement in this topic specifically with holographic data storage and three dimensional data storage. I would plan to narrate the progression of technology focusing on hard disk drives, floppy disks, cd/dvd, flash memory, holographic data storage, and three-dimensional storage data storage.

The topics of physics this would cover will be electricity and magnetism for floppy and hdds, optics for cd/dvd and holographic data storage, and possibly material science because of holographic data storage and three-dimensional data storage.

Most of the research papers I have found deal with more of the experimental technology. I have found other sources for current data storage systems but none that are published in journals.

* Future of hard disk drive. Wood, Roger <http://www.sciencedirect.com/science/article/pii/S0304885308007877>
* Near‐field magneto‐optics and high density data storage. Betzig, E. et all. <http://scitation.aip.org/content/aip/journal/apl/61/2/10.1063/1.108198>
* Robust holographic storage system design. Watanabe, Takahiro. Et all

Optical Society of America. (210.0210)

* The Physics of Ultra-High-Density Magnetic Recording. Plumer, M.L. Springer Science and Busness Media 2001.