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CART 211: Creative computing and network cultures

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### Vannevar Bush and His Early Idea of Modern Day Internet

Vannevar Bush was a scientist, an engineer, an inventor. During WWII, he was head of the U.S. Office of Scientific Research and Development. In science, research papers, ideas and such must be recorded and stored. However, the process can be long and in the end many records might not be accessible to other scientists if they are too far from one another. In the text “*As We May Think*”, written by Vannevar Bush in 1945, he describes the inconvenience that saving records physically can impose. The process to have these records published is long and making duplicates to allow a larger range of access can be costly.

Furthermore, indexing as they knew it could be quite burdensome. Records were stored either numerically or alphabetically and people often needed to go through a file clerk to find their results. Following a path to find a record terminates once you’ve found the record, so if there was another record to find, the path must be started anew. Bush began to think of a device that would save time and energy by mimicking the selection manner of the human mind: selection by association, as opposed to selection by indexing.

Bush called it the “memex”. It is a device similar built into a desk that would be equipped with slanted screens, a keyboard, buttons and levers intended for the personal use of a single individual. It would contain a database all of one’s books, records and communications as well as all records placed into the device. It would allow an individual to enter codes using mnemonics to access specific records at an incredible speed. It would allow a person to pull up

many records at once and consult the records back and forth. It would also keep a history of the person's "trail", known today as their browsing history. He thought of the memex as an extension of a person's memory and mind.

The device that he thought of in 1945 greatly represents what we know today as the internet. Today, anywhere we go, there are screens and keyboards with mice that have buttons that allow use to browse the vast environment that is the internet. It is the largest database. We look for various records by entering words associated with records (websites) codes, comparable to Bush's codes and mnemonics. We can bring up multiple records and consult them freely without restrictions. Each browser also holds every individual's browsing history that can be consulted to find previously consulted records.

Reading this today and comparing his what we could call prediction of what we have today is truly mesmerizing. To think that nearly 70 years ago, this man thought of something like the memex when no such technology existed anywhere else in the world. Nearly 70 years later, we use something that his mind could never have even conceived or comprehended as an everyday necessity, even though the two are very comparable. Who knows what kind of technology we would have access to 70 years from now? Maybe we could all have what Bruce Wayne had in his Bat Cave! Or maybe we can't even begin to imagine what level of advancement we would reach and what kind of technology would see the day. What an entertaining thought!