Kelly Cargill
ARTS 486
Project 1: As We May Rethink
Functional Specification
January 31, 2020

Scope:

The Memex Project will be a computer like device with the capabilities of bringing an entire library in to the home or office at less than half the price of an actual library. It will provide ease of access to personal documents, notes and records as well as books and essays. Each unit will include multiple viewing areas, key/switch board, micro film, and means of storage, projection, and creation of microfilm roles.

Solution Overview:

Memex will look like a desk with two glass panels one for viewing text and one for the code/text selection panel.

The machine will be made with space age glass and metals for a sleek, modern design.

The memex will use the dewey decimal system of classification (eg. 641.56 M) for storage of published materials and will number (eg. 00001, 00002) any personal documents or notes.

Every text can be searched by code, subject, or keyword. Most common or frequently used texts or codes will be displayed on the code screen at all times for easy access. When used often enough, the machine will begin to rearrange its indexing to better reflect the user's train of thought.

Because each page will be recorded on a single slide of microfilm, there is a dial available on the switchboard to speed up "page turning" and will run through the film more quickly. Otherwise, pages can be changed using the left and right arrows on the keyboard.

Personal microfilm reels can be removed from the machine and shared with other memex users

User Cases:

Say the user wants to do research about Shakespear's play Macbeth but is unfamiliar with Scottish geography. The Memex will allow the user to search for and view not only Macbeth, but also an atlas that includes maps of Scotland.

After starting up the machine-

1. Select search bar on the designated code/text screen by using the arrow keys and select button, use the keyboard to type keywords or codes such as "Shakespear", "Macbeth", "822.33 T5".

2. Select the text with arrow and select buttons. There will be a moment's wait while the machine pulls the correct microfilm reel

3. The Machine will project the first text on the left screen unless otherwise instructed

4. The next code search would be "914.1" or "Scotland atlas" and when selected will appear on the right screen.

5. If the user wants to mark a particular river on the map that corresponds to the story they can use a dry or wet erase marker to write directly on the screen.

6. When finished, use the photograph/scan button controls on the key/switch board. The memex will use a new role of microfilm to record the user's personal notes. The machine will automatically assign it a number and the user will be prompted with the option of giving it a keyword or title for easier search.

7. If the user is interrupted and wants to hold their place they can do so by using the affiliated buttons on the switchboard before turning off the machine for best user practice.

8. The next time the user wishes to study Shakespear and a play is selected, the next codes to appear on the code screen will be for other atlases. This is called associative indexing.

Warning Lights:

Like all machines, certain parts may be faulty or will wear down with time. Lights on the switchboard will notify the user of: microfilm jams, projector lightbulb burn out, scanner malfunction, too many film reels in use, and needing to load more film reels. These are only a few of the main warnings, others will be listed in a manual or there will be a need to contact a memex programmer.

Bonus Features:

A microphone can be attached to the switch board for speech to text note taking. All the user must do is speak clearly into the microphone and the memex will record the written words on to a microfilm slide/role.

In the event that the memex user wishes to view a paper book or document, the dewey decimal number on the memex will match that of an analog library. For those who already know the dewey decimal system, use of the memex becomes that much easier.

Memex users will be able to purchase microfilm roles of newly published materials in the same way that they would purchase a book and these film rolls can be directly inserted into the memex.