A Response to *As We May Think* (Vannevar Bush, 1945)

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I find myself immediately agreeing with Bush’s basic premise that as the sciences (and to generalise, societies) become more specialized the difficulty of disseminating knowledge outside of the academic disciplines in which research was conducted naturally becomes greater. And, therefore, as this specialization occurs methods and technologies related to the efficient and effective storage, organization, and dissemination of this knowledge becomes increasingly vital to prevent wisdom from being lost forever within departments or with academic elites.

I am also in accord with Bush’s theoretical solution which seems to be organizing information not by index (nested markers which organizes the text rather arbitrarily in the context of their contents and meaning), but instead by association, for this takes into account the content and context of texts and relates them accordingly when one selects/searches. From my understanding this parallels the contemporary difference between the looking up of an individual website via a completely unique (rather arbitrary) url versus typing in a bunch of keywords into a search engine and being presented with a countless number of related articles, videos, books etc.

I find his specific imagined technology, *Memex,* which realizes his association-over-indexing philosophy, especially interesting. I find *Memex* intriguing not so much at its face value: as a blueprint for a contemporary realization of the technology; but rather as a primary historical account: for through Bush’s predictions of future technology and comments on the realism or absurdity of his prophecies we we can make informed guesses as to the technological paradigms that existed at the time of authoring. For instance, the idea of storing and accessing information purely digitally must have been unfathomable at the time for Bush imagines ameliorated microfilm technology instead of floppy disks or hard drives as the solution to condensing the storage of information. I know that this particular paradigm is more largely indicative of Bush’s general time and place as the same technologies were present in sci fi classics written at the same time. For instance, in Frank Herbert’s *Dune* published in 1965 books are condensed physically by using what appears to be incredibly thin (micro) paper (film), and are then later rendered legible by the naked eye using projections and/or magnifiers – an identical technology to Bush’s hypothesizes.

I love how since Bush cannot fathom computers and algorithms which can deal meaningfully with content and organize and associate it meaningfully Bush employs crowd sourcing to meaningfully associate related texts in trails. I think Memex seems incredibly insightful: as it seems both private, collaborative, and allows for index based and association based searches just like the contemporary internert.

However I would have to disagree with Bush’s basic assumption that nessitates that the grouping by association be crowdsources: that is Bush’s assumption (telling of his time) that computers can only be used for logically tasks and purposes, and are *essentially* uncreative.

his version of the internet “Memex” which can be searched via an index, but also uses crowd sourcing to more meaningfully relate materials in “trails”. I think this was incredibly insightful, as Memex seems both private, collaborative, and allowsfor both index based, and association based searches just like the internet.

Also things shouldn’t need to be crowdsource for associations, machines can do that too.

Finally I do not agree that machines can only be useful in fields in which logic and repetition are used. I believe computers can be as creative as humans, and I think new breakthroughs in neural networks and machine learning show that technically deterministic entities can behave by all extent and purposes in very creative ways, and that this shows that there is no essential difference (to use the gendered language found in the article) man and machine.